

APPENDIX A

Project Plan and Elevations - Sites D and F2, Newly Proposed Variants (2014)



google maps dated 8/29/2012

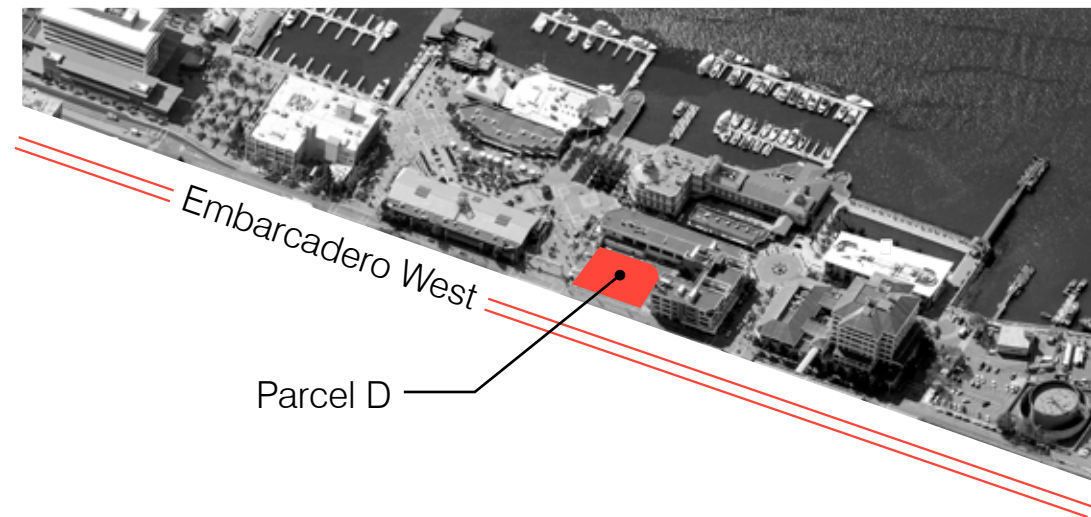
4 over 2
60 Units
Parcel D



JACK LONDON SQUARE
OAKLAND, CALIFORNIA

PARCEL D

21 MAY 2013
PROJECT NO: 47850
2470 MARINER SQUARE LOOP
ALAMEDA, CA 94501
T 510.865.8663 F 510.865.1611
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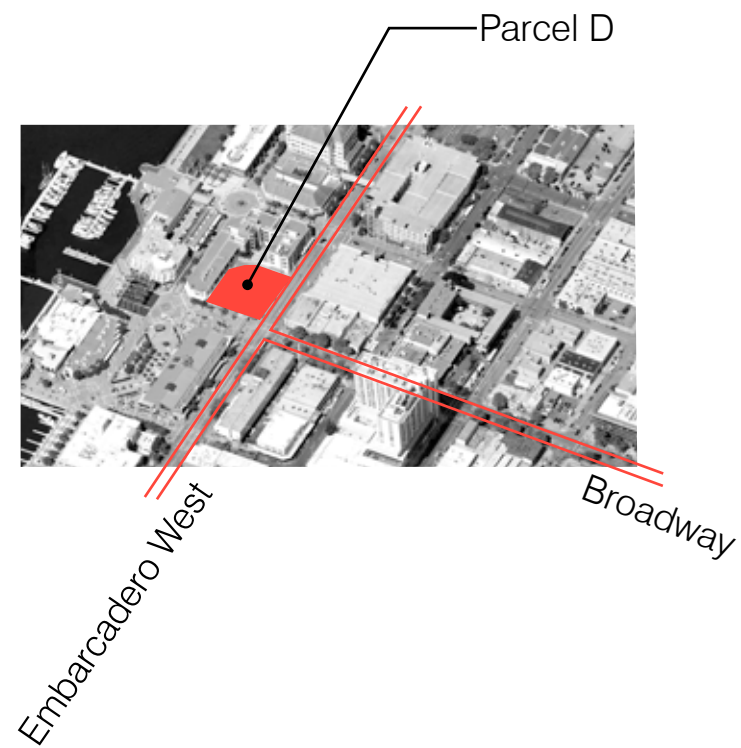
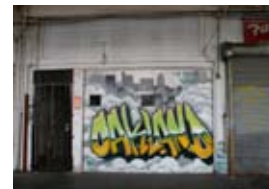
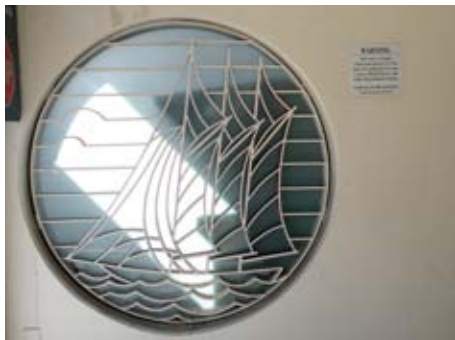
Embarcadero West Panoramic



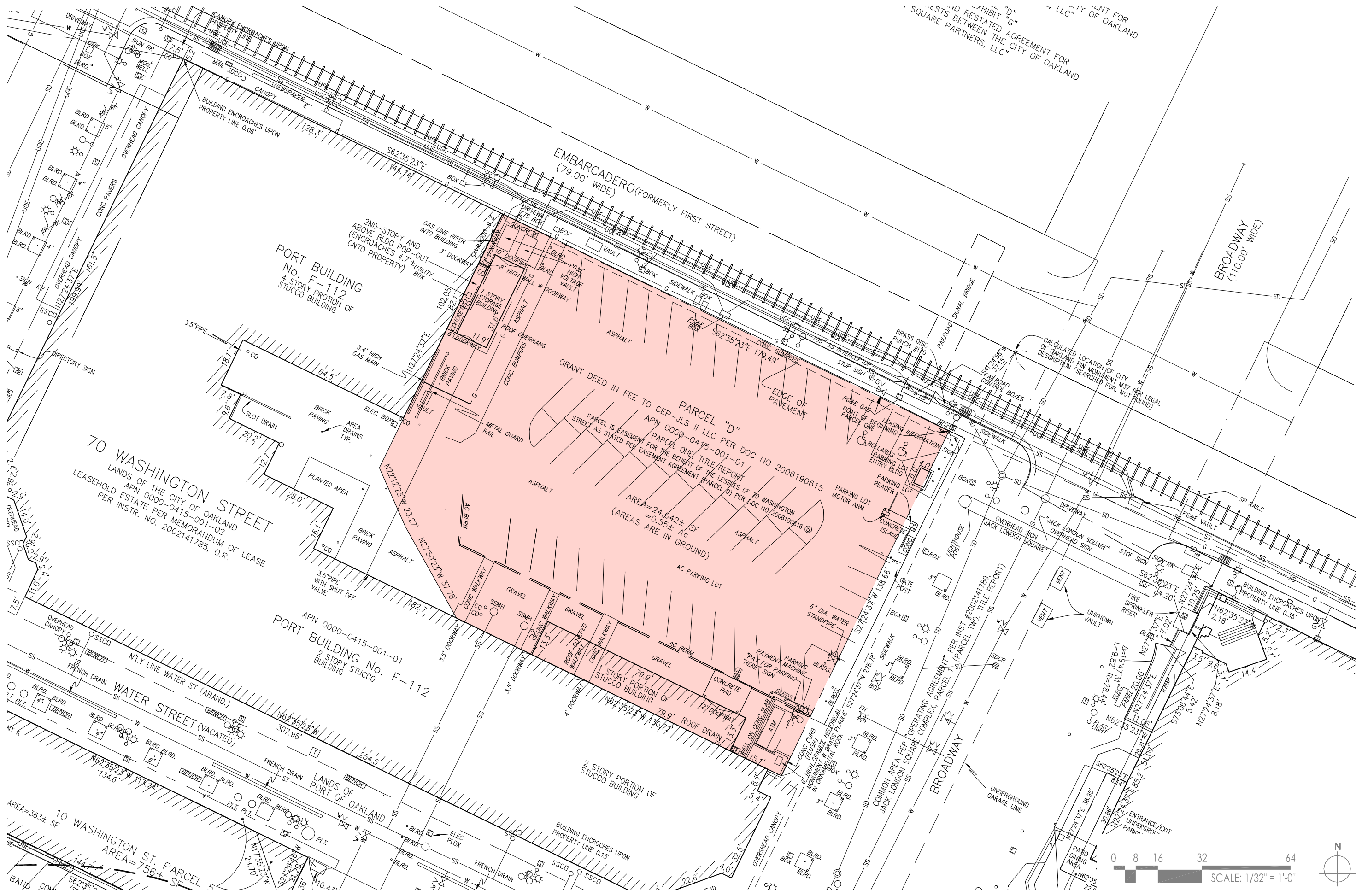
San Francisco Bay Existing Building Water St. Existing Building **Parcel D** Embacadero West Existing Buildings 2nd St. Existing Buildings

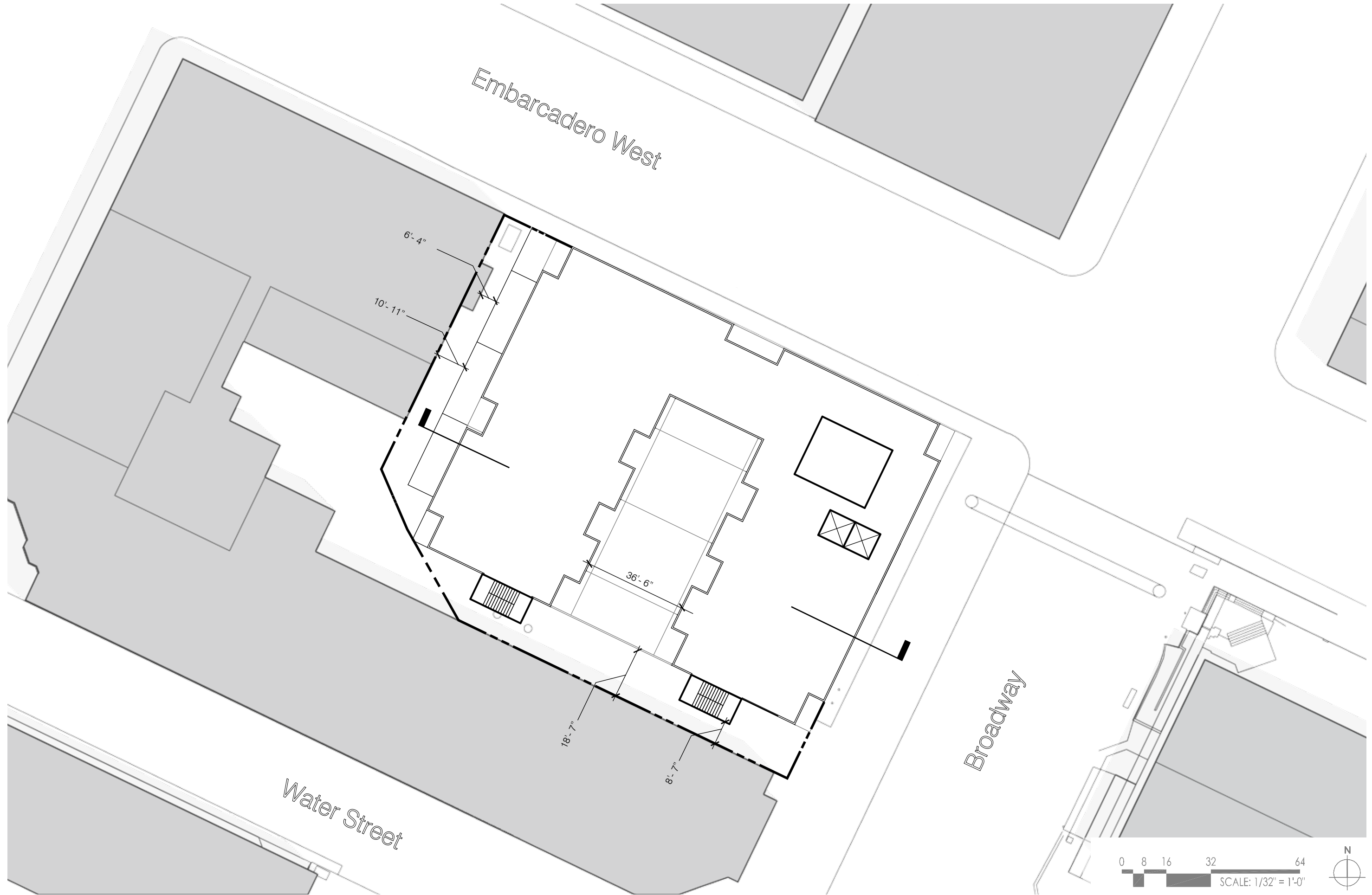


Broadway Panoramic



Parcel D Contextual Photos





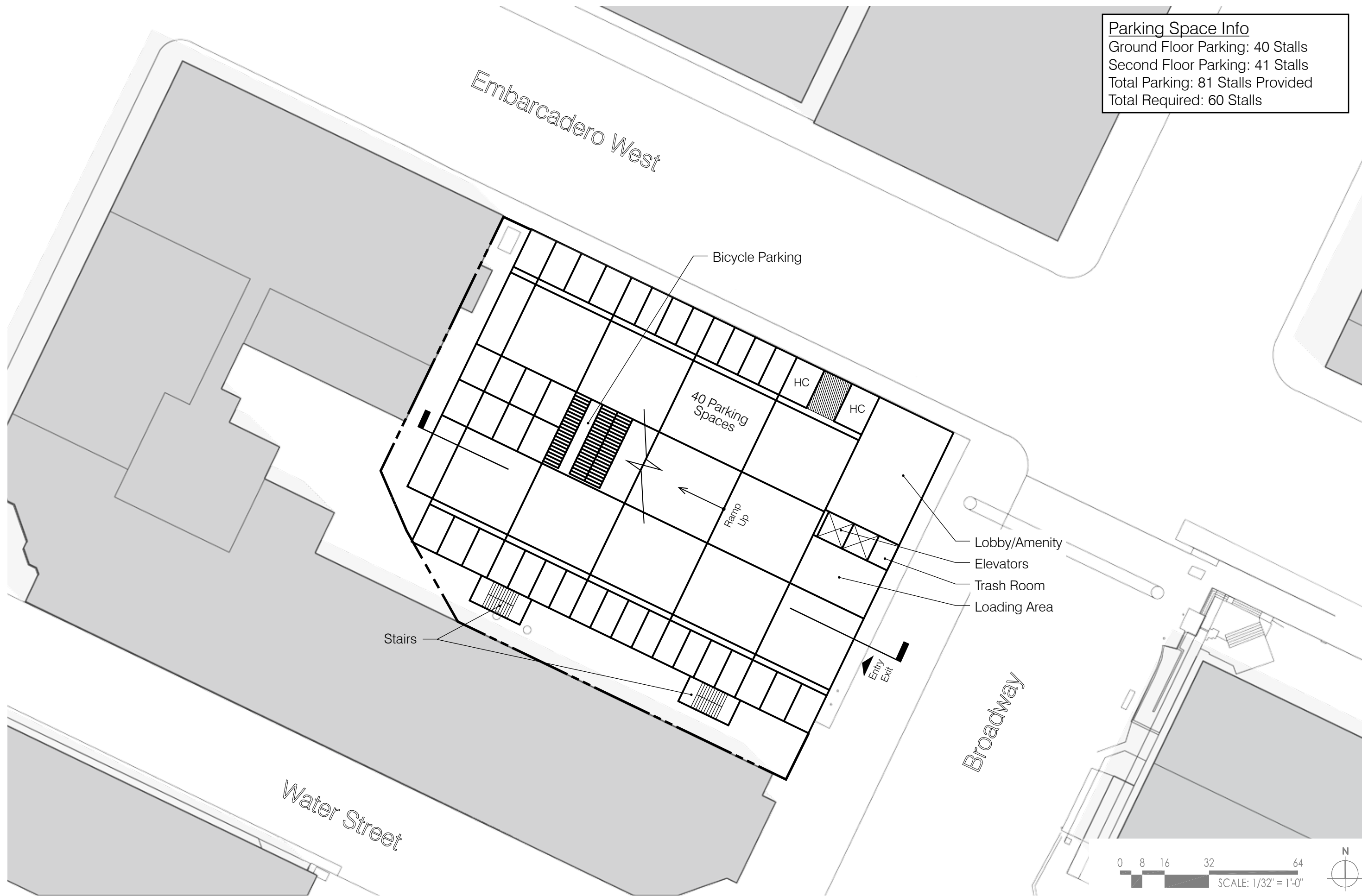
Site Plan



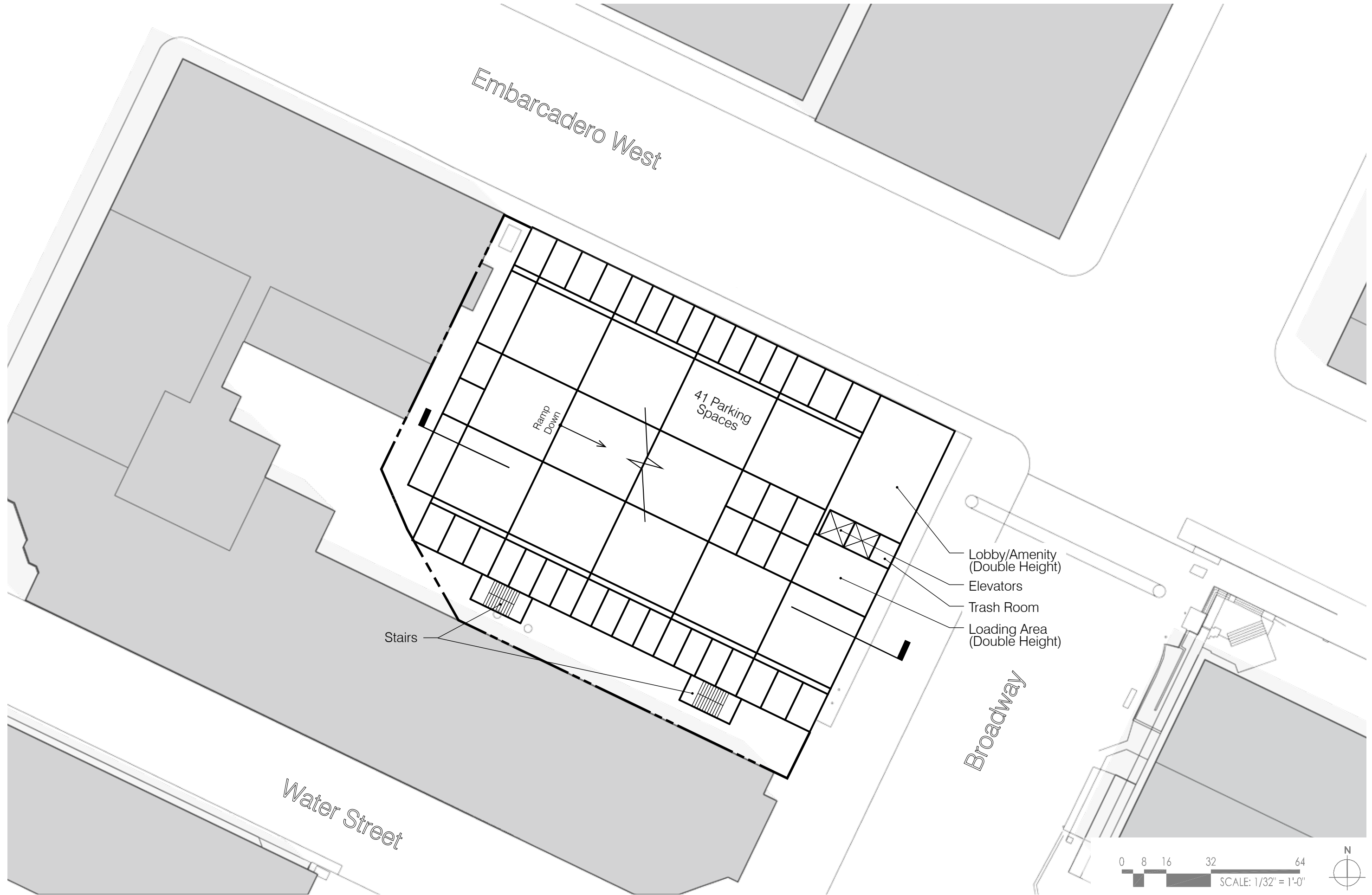
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OAKLAND, CALIFORNIA

PARCEL D

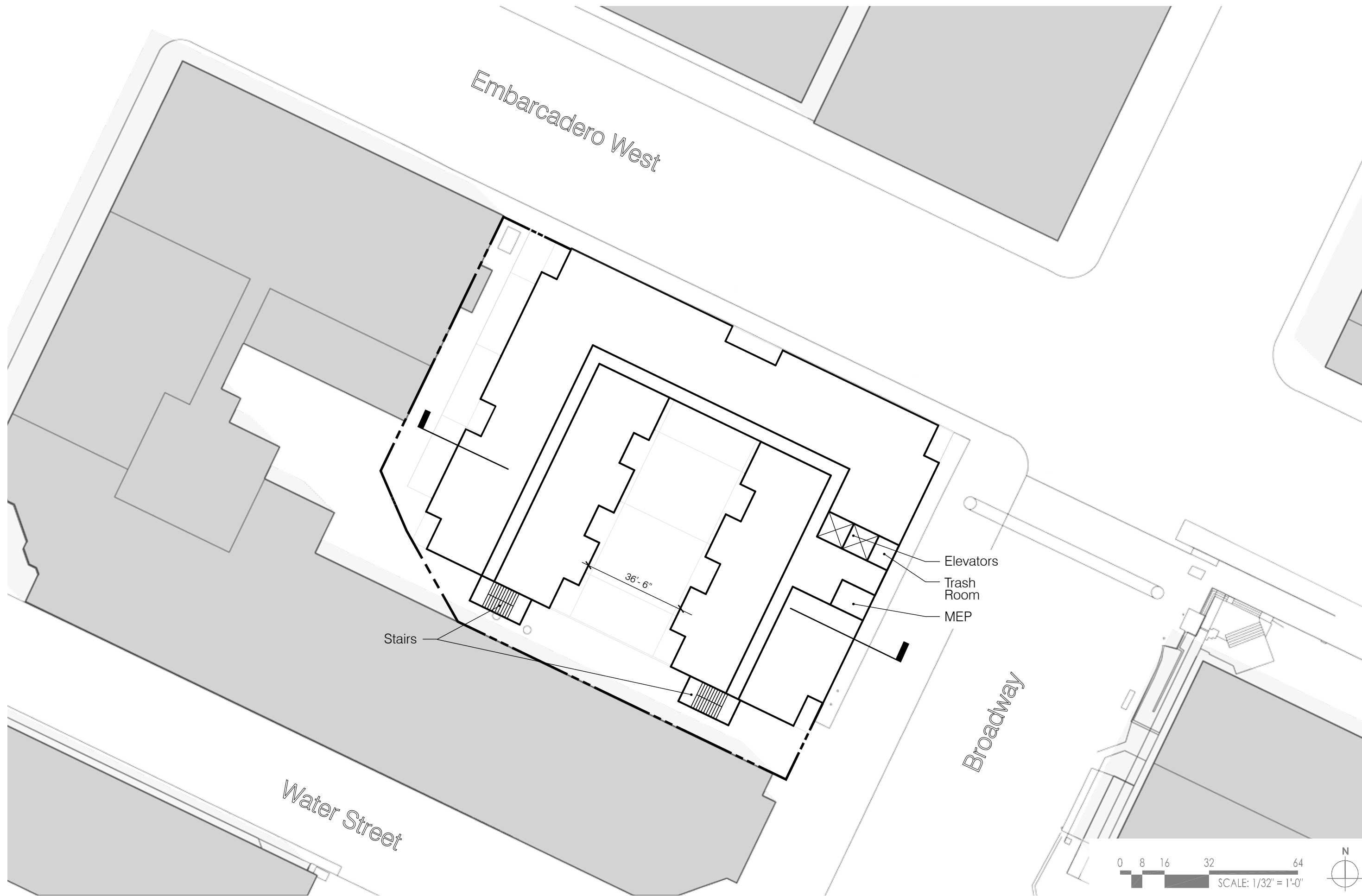
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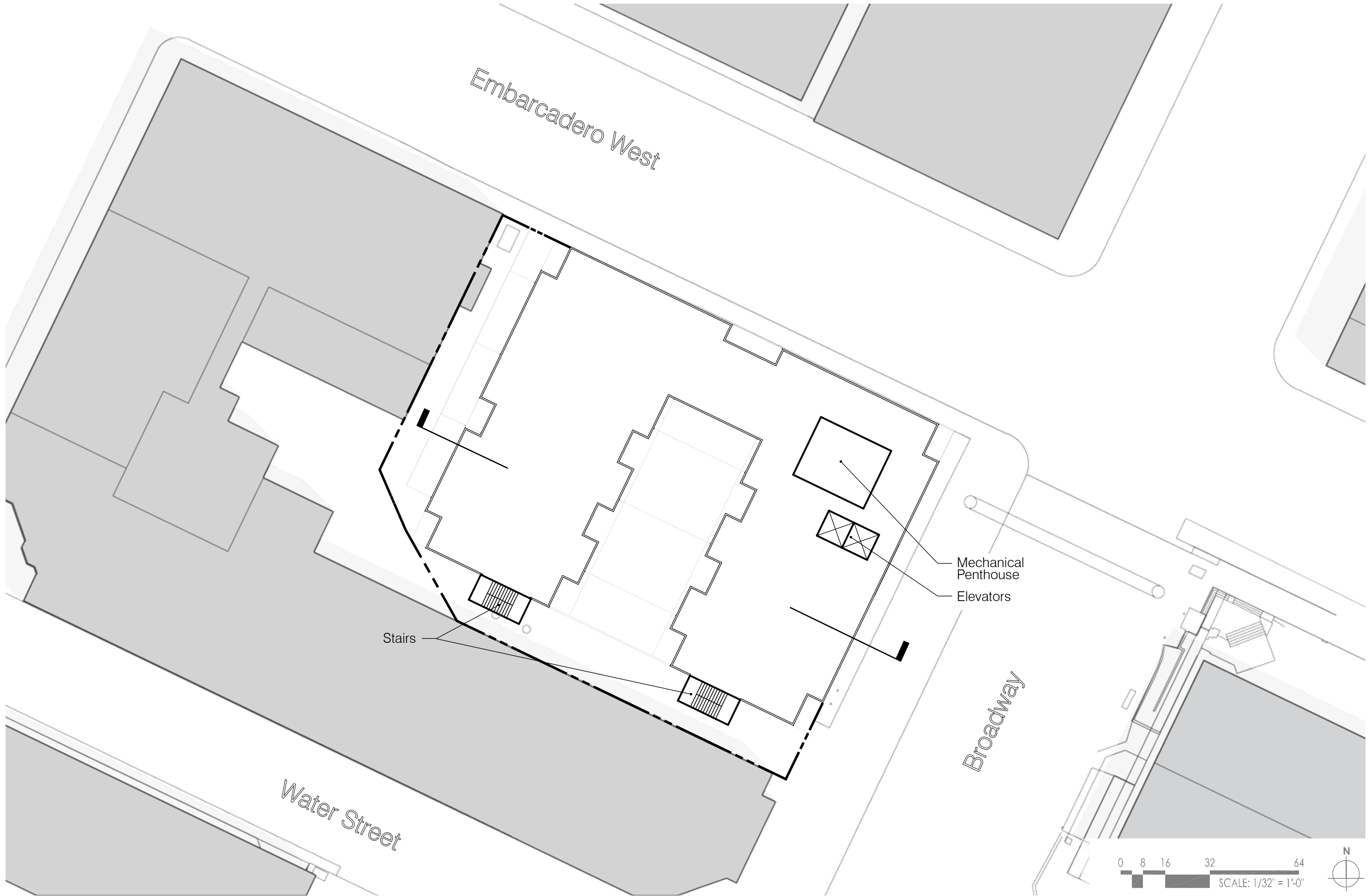
First Floor Plan



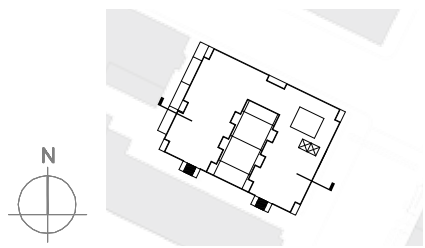
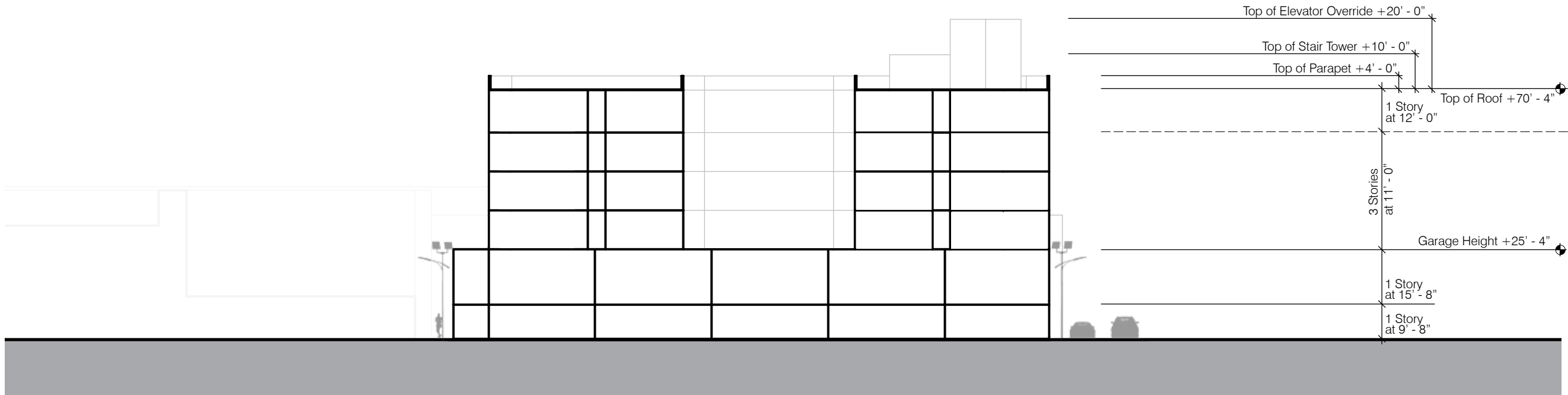
Second Floor Plan



Typical Plan (Third - Sixth Floor)



Roof Plan

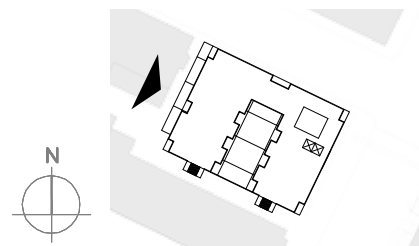
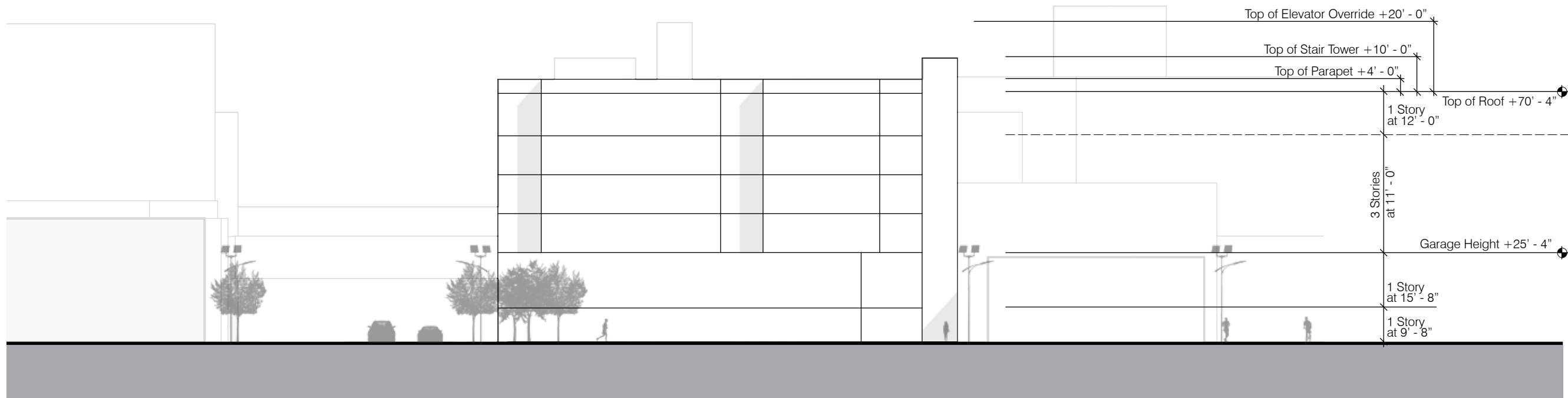


Section

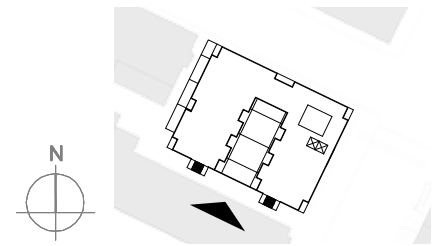
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PARCEL D

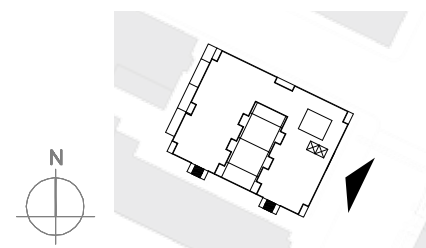
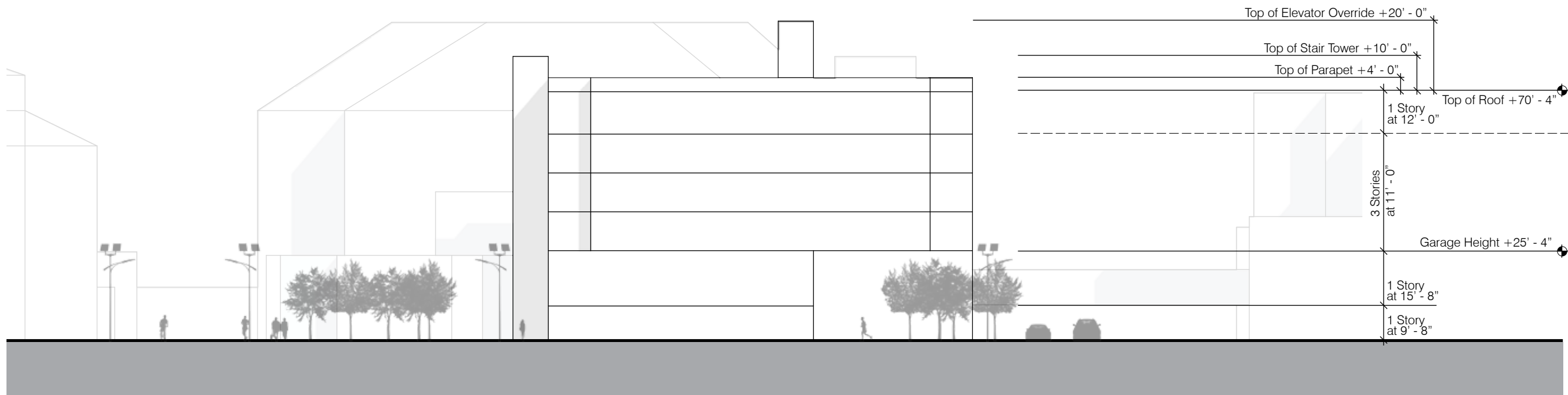




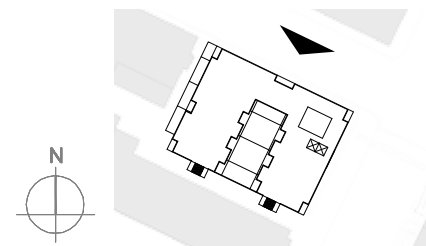
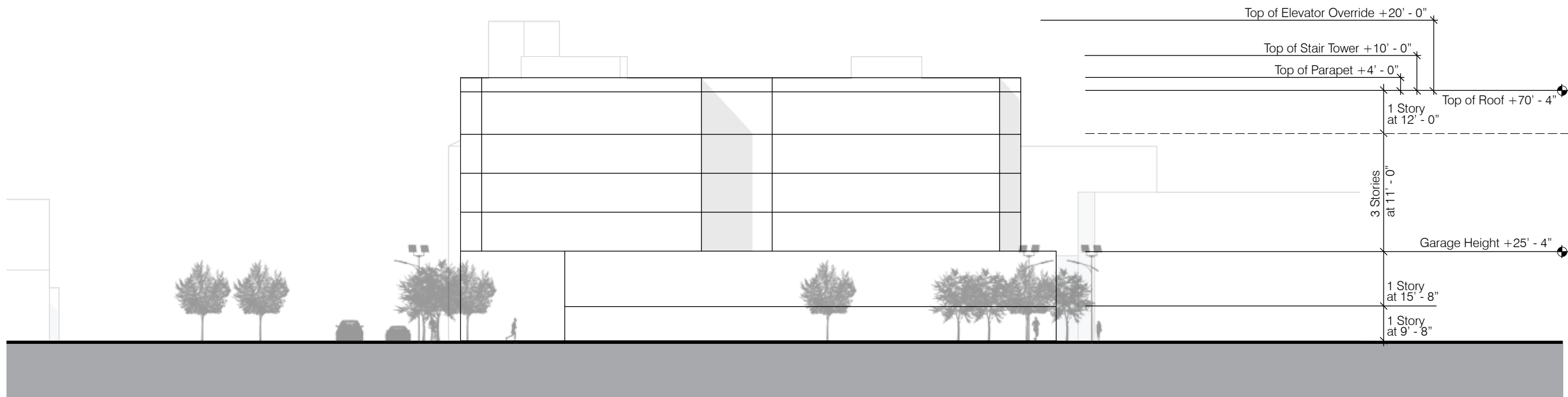
West Elevation



South Elevation

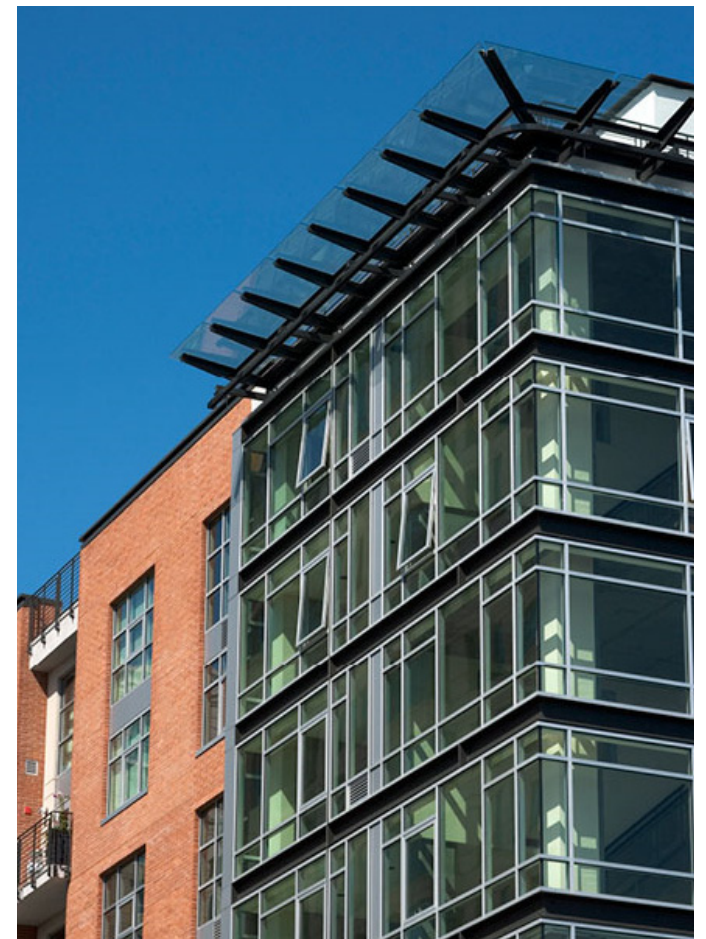
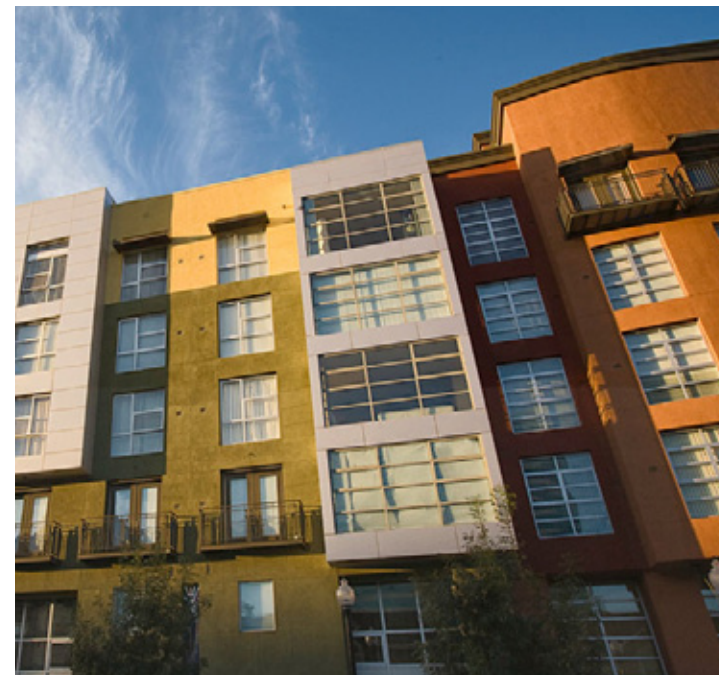
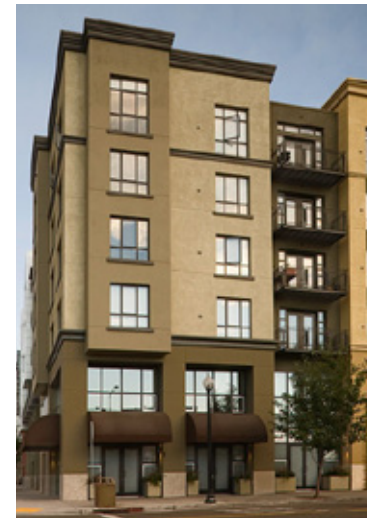
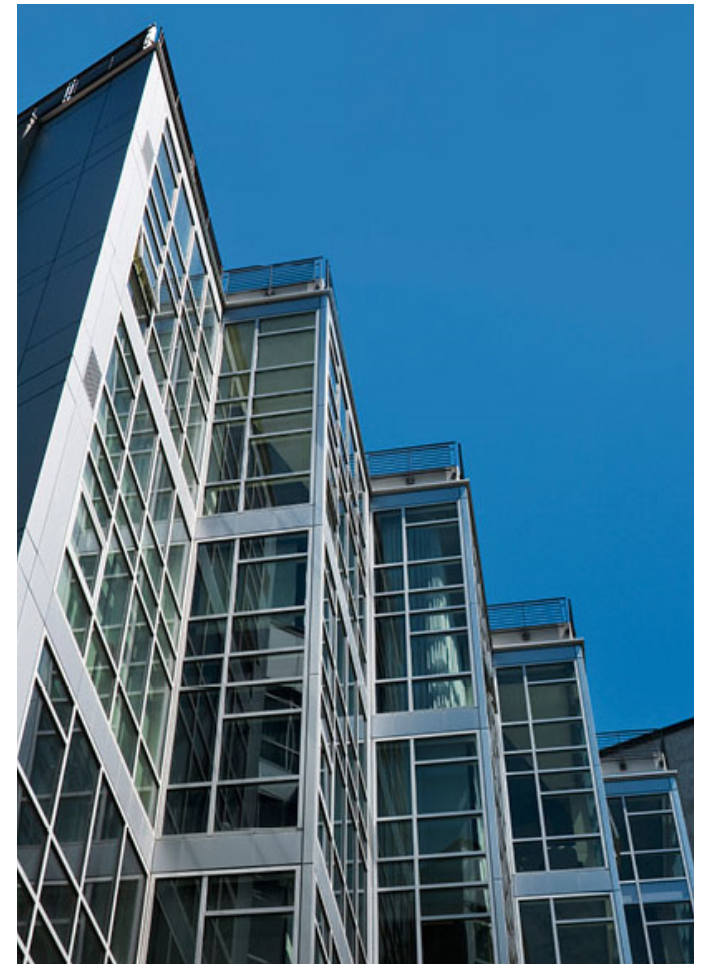


East Elevation



North Elevation

Colors, Finishes and Materials to be
selected during FDP Phase



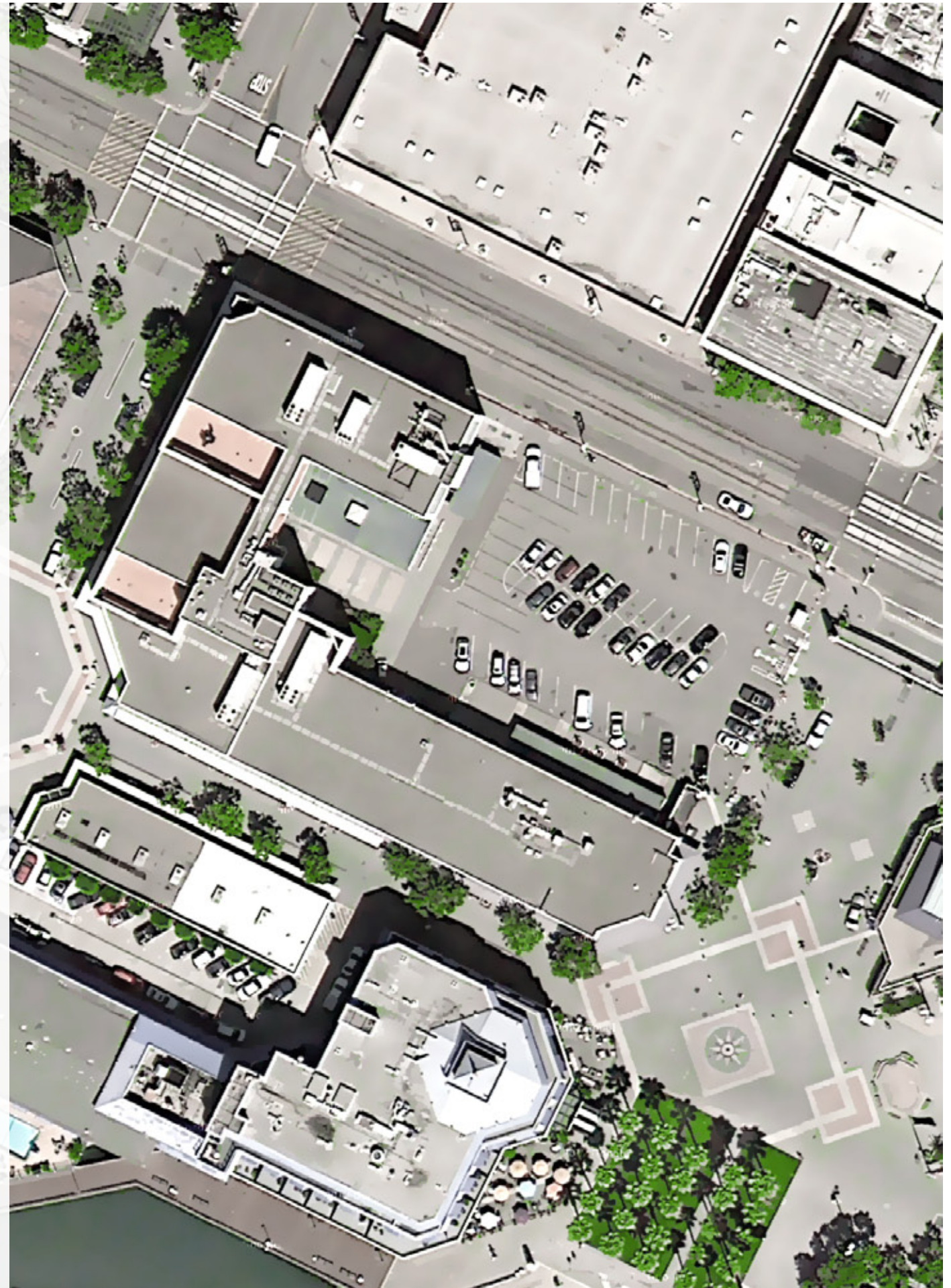
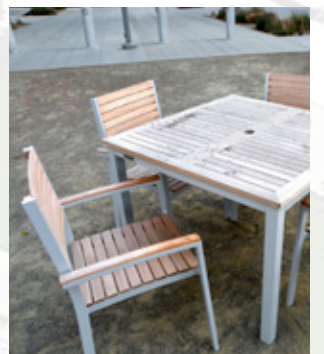
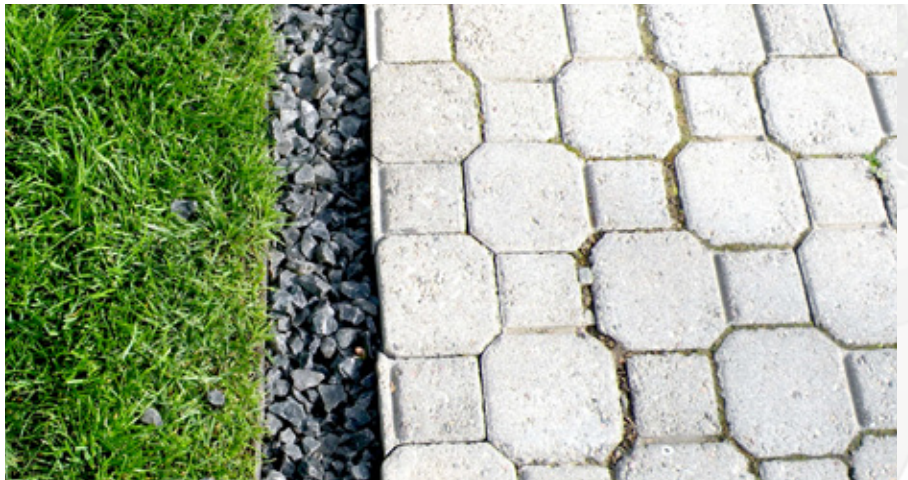
Exterior Design Study



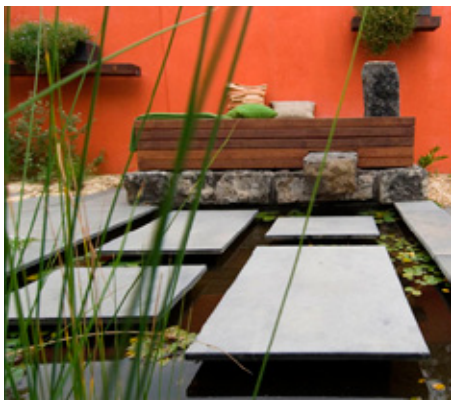
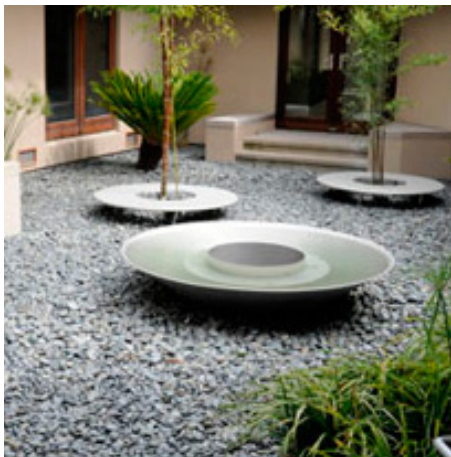
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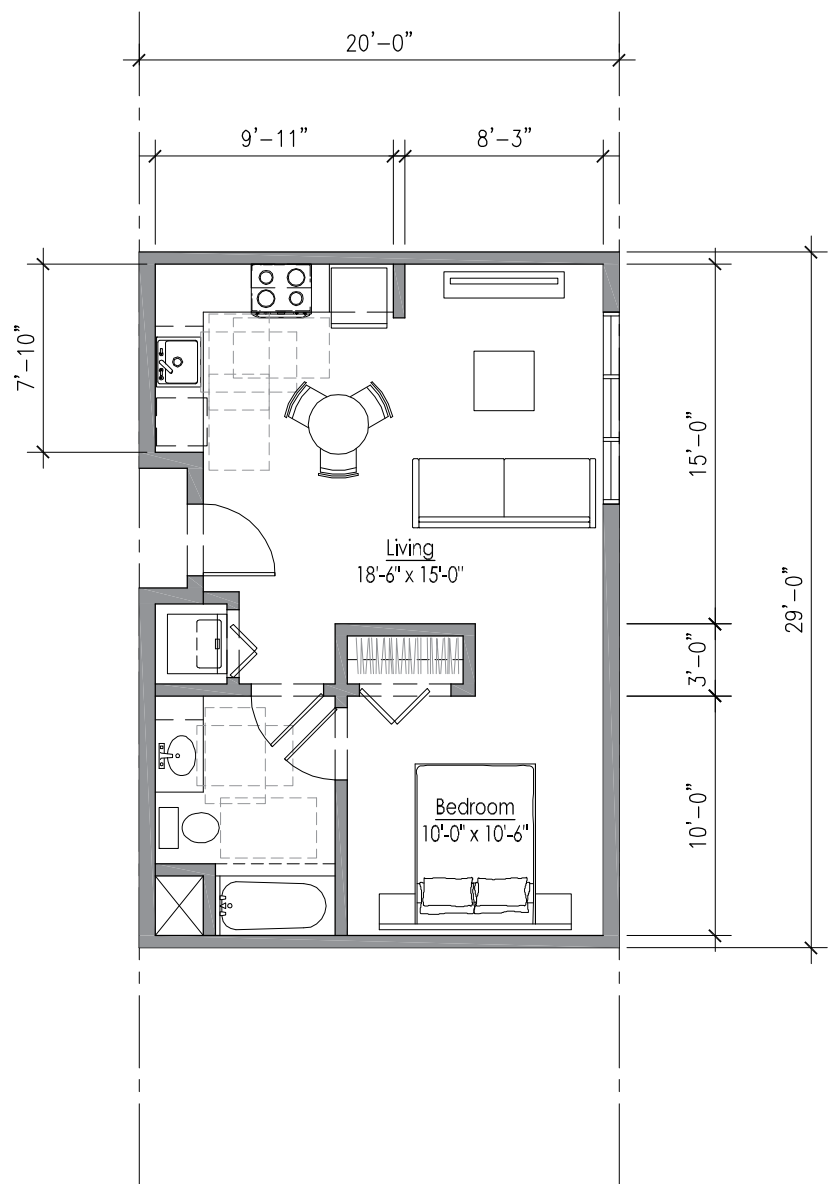


Existing Landscape and Lighting



Amenity, Landscape and Lighting Study



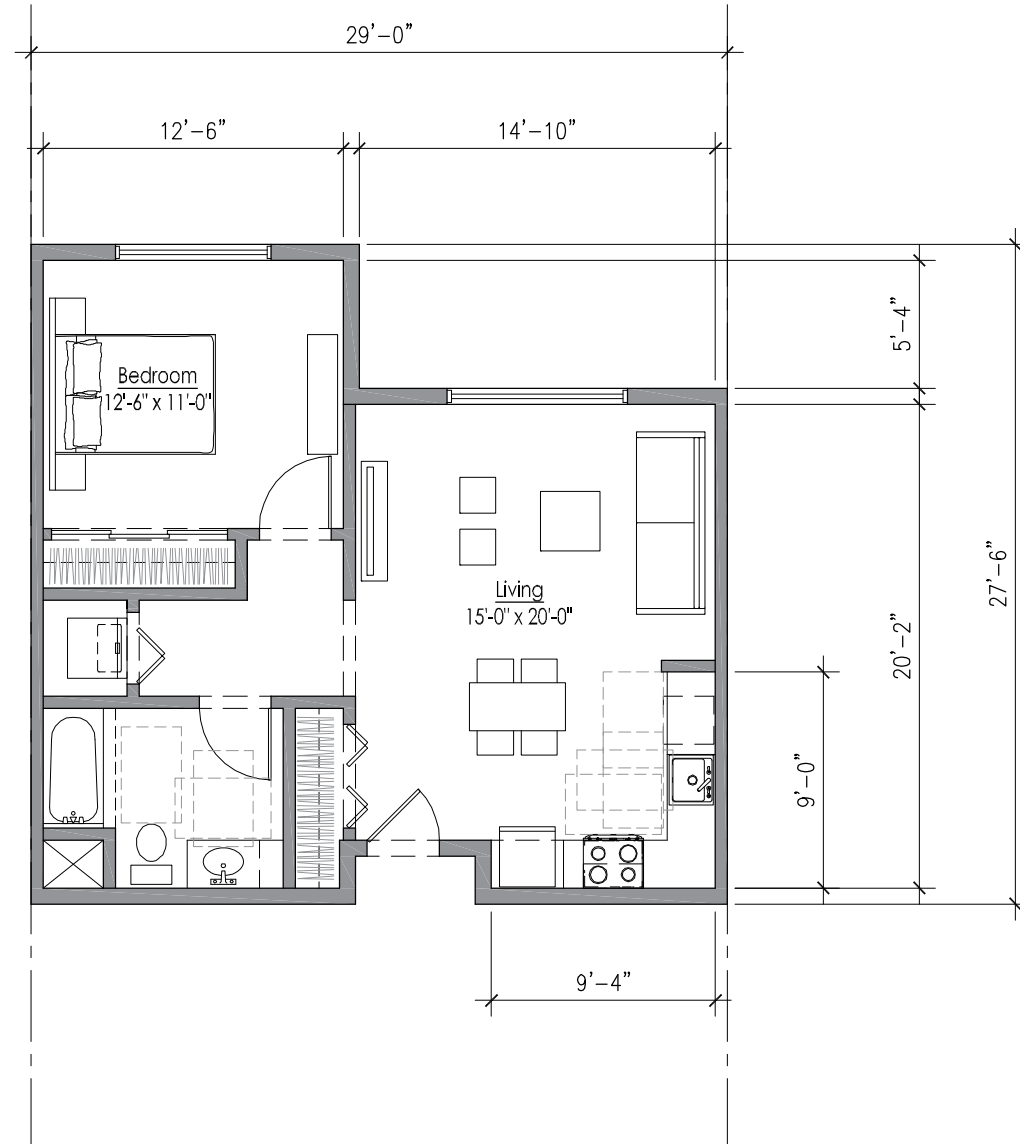


Unit A - Junior One Bed/One Bath

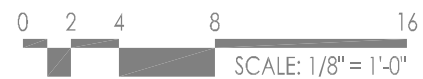
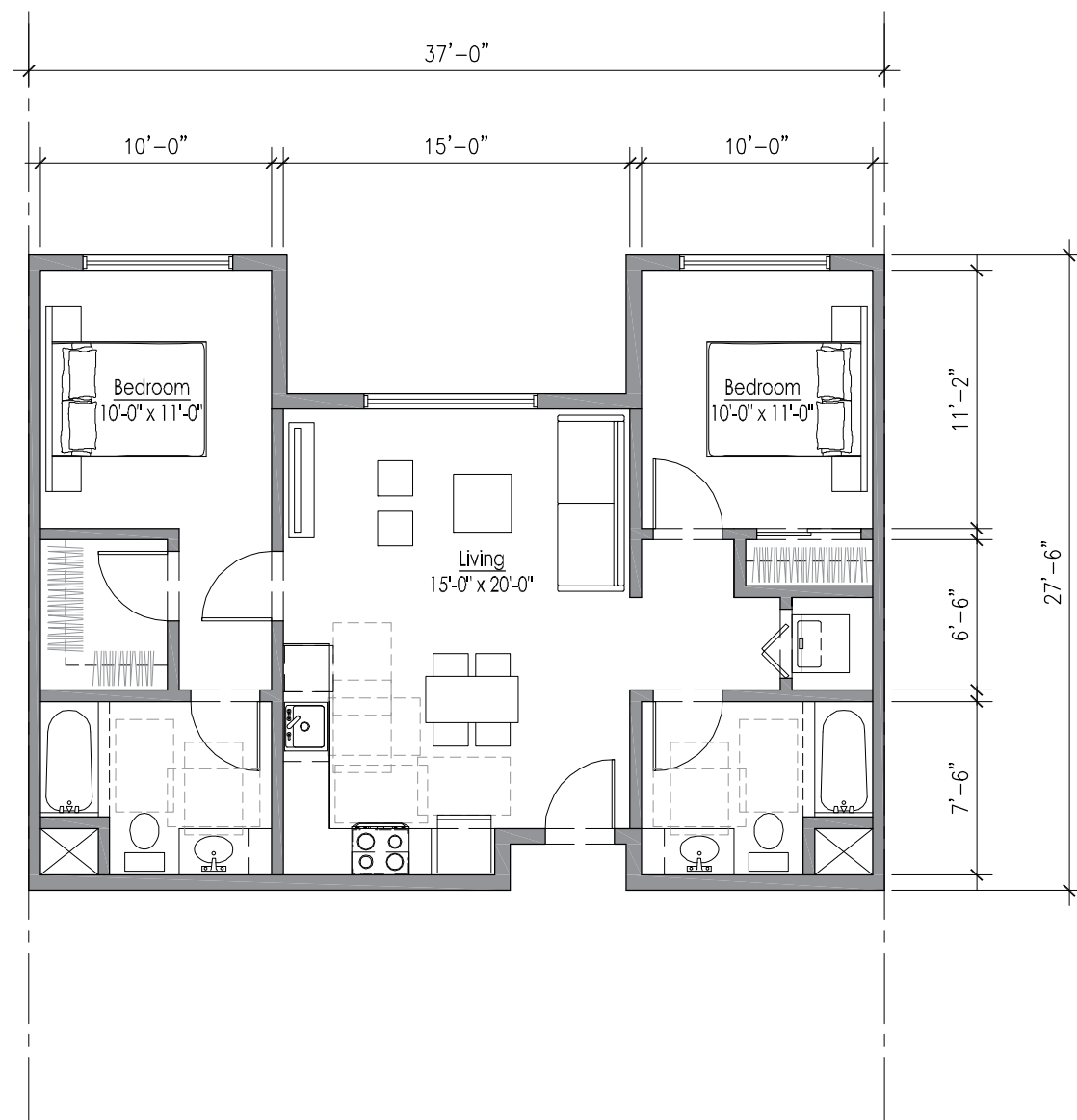


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Unit B - One Bed/One Bath



Unit C - Two Bed/Two Bath



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google maps dated 8/29/2012

6 over 2
90 Units
Parcel D



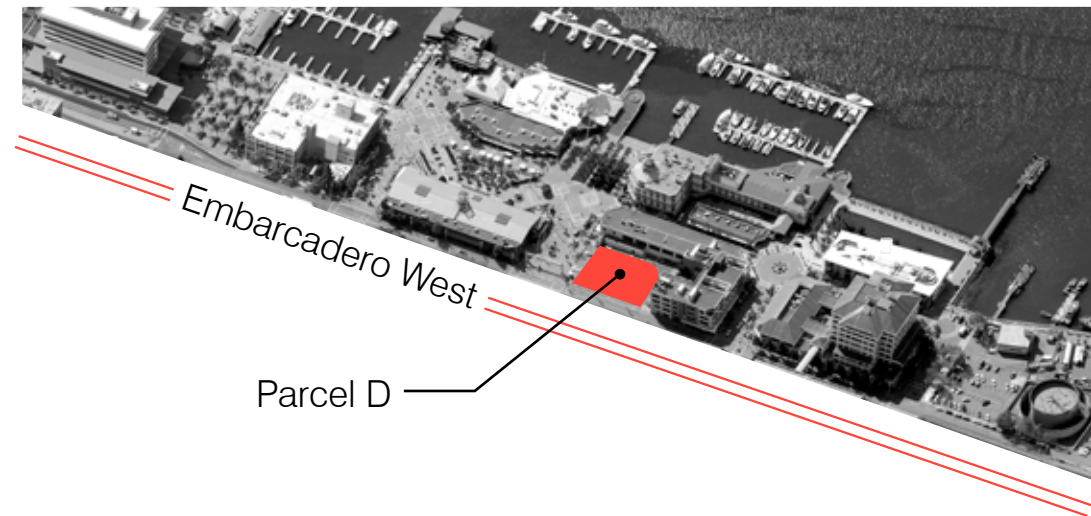
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← Franklin St. → Existing Building ↔ Broadway ↔ **Parcel D** ↔ Existing Building → Washington St. → Existing Buildings → Clay St. →



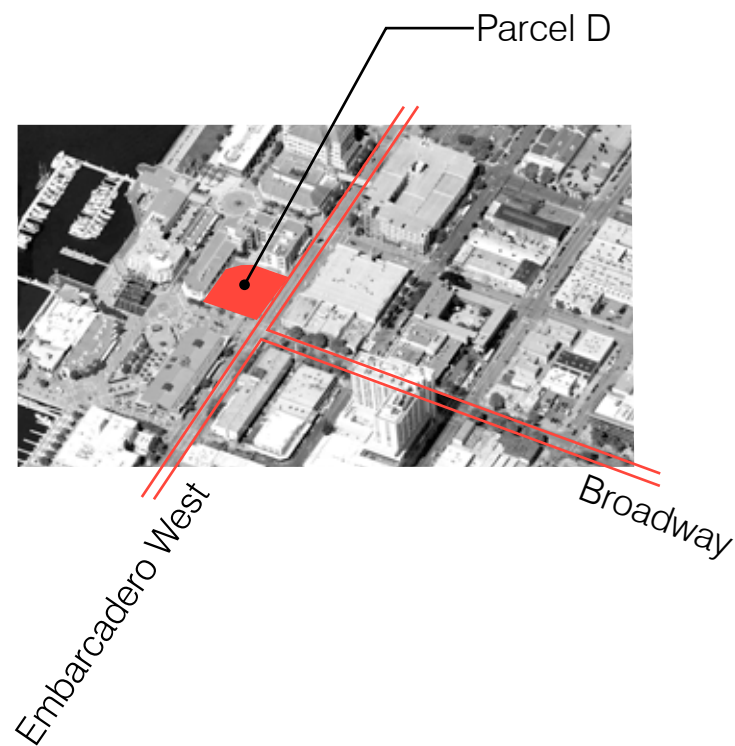
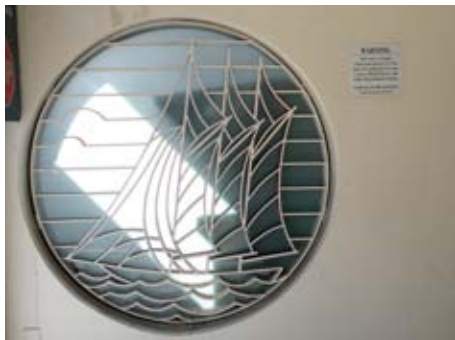
Embarcadero West Panoramic



San Francisco Bay Existing Building Water St. Existing Building **Parcel D** Embacadero West Existing Buildings 2nd St. Existing Buildings



Broadway Panoramic



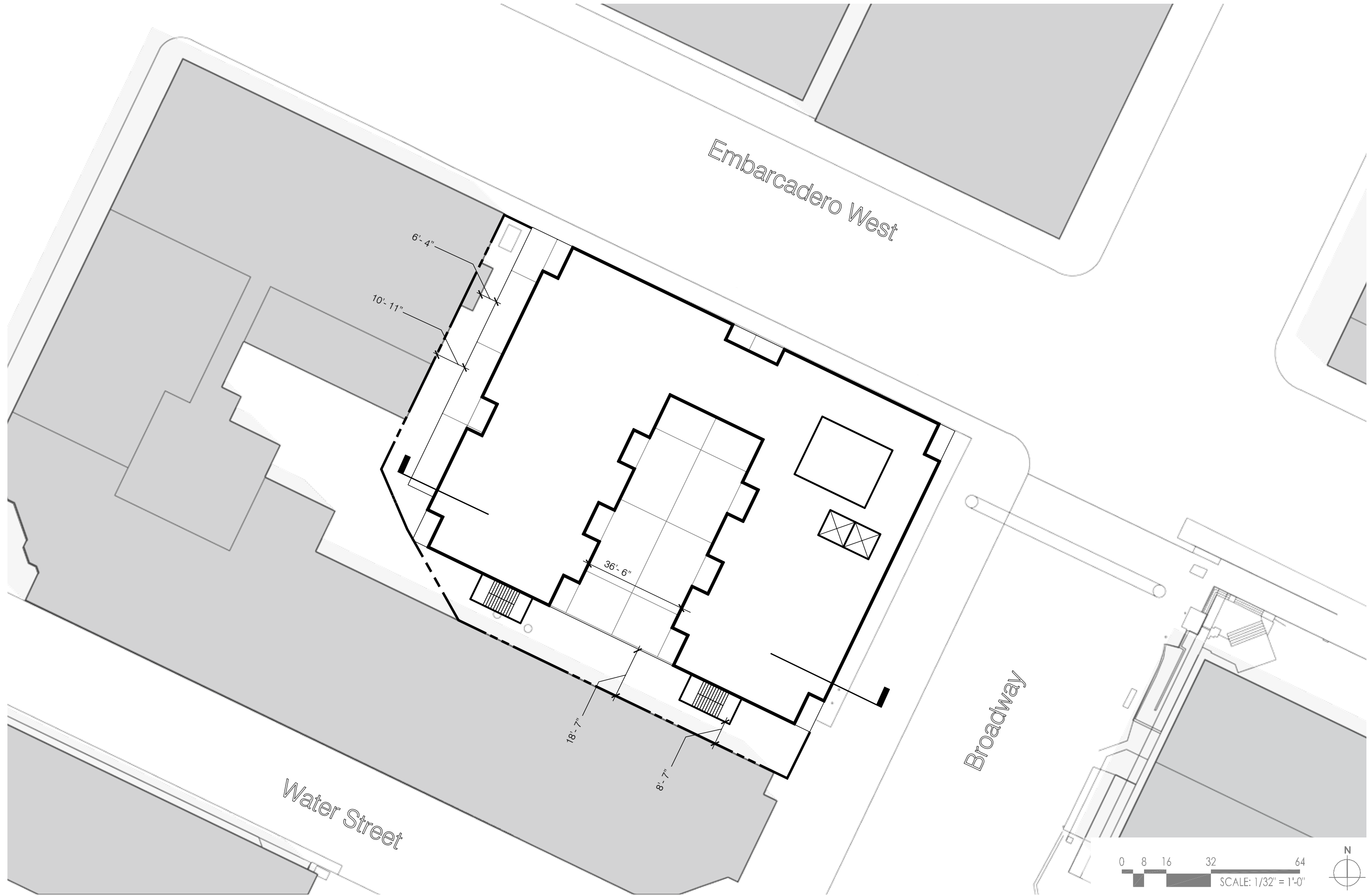
Parcel D Contextual Photos



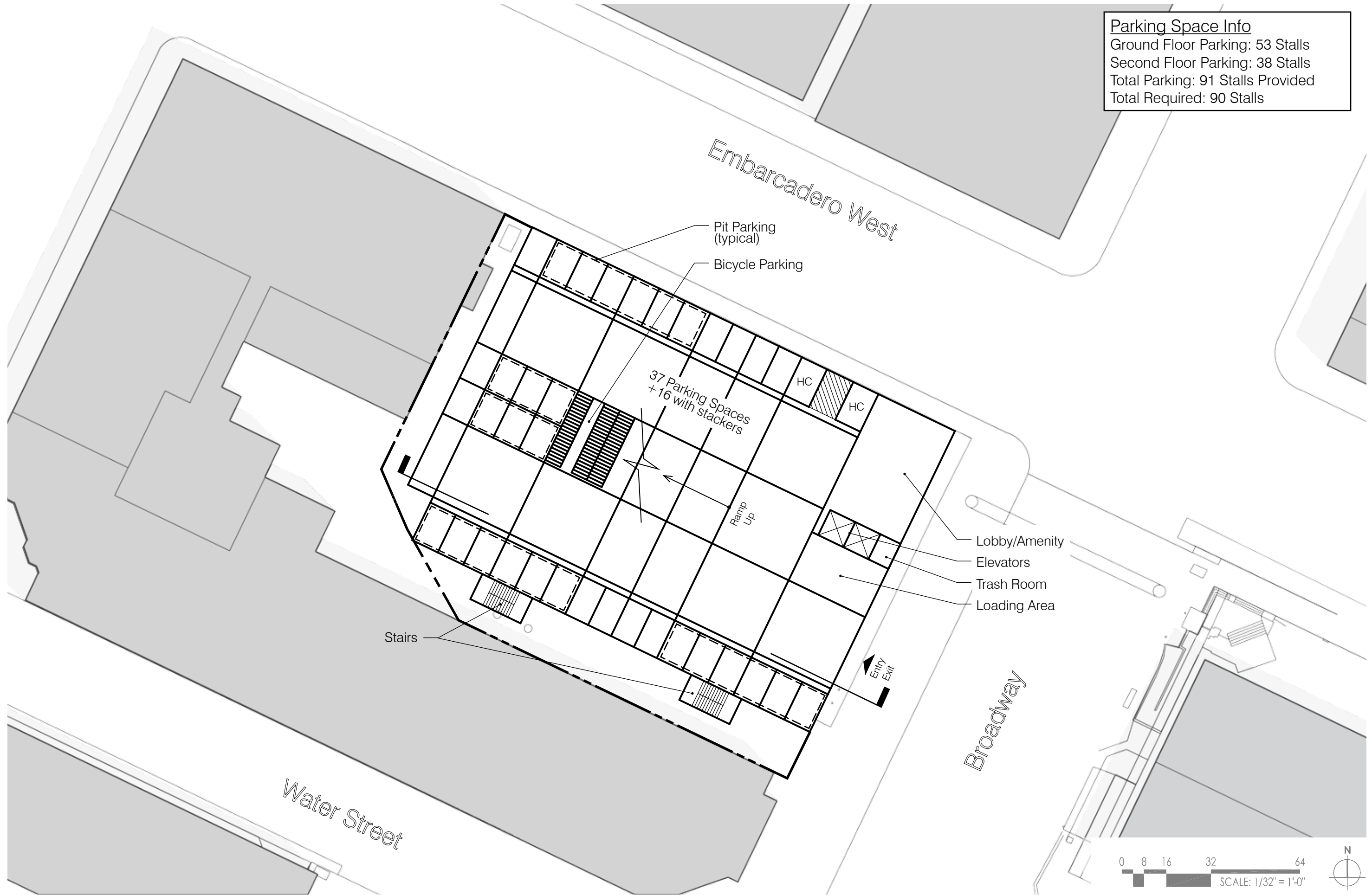
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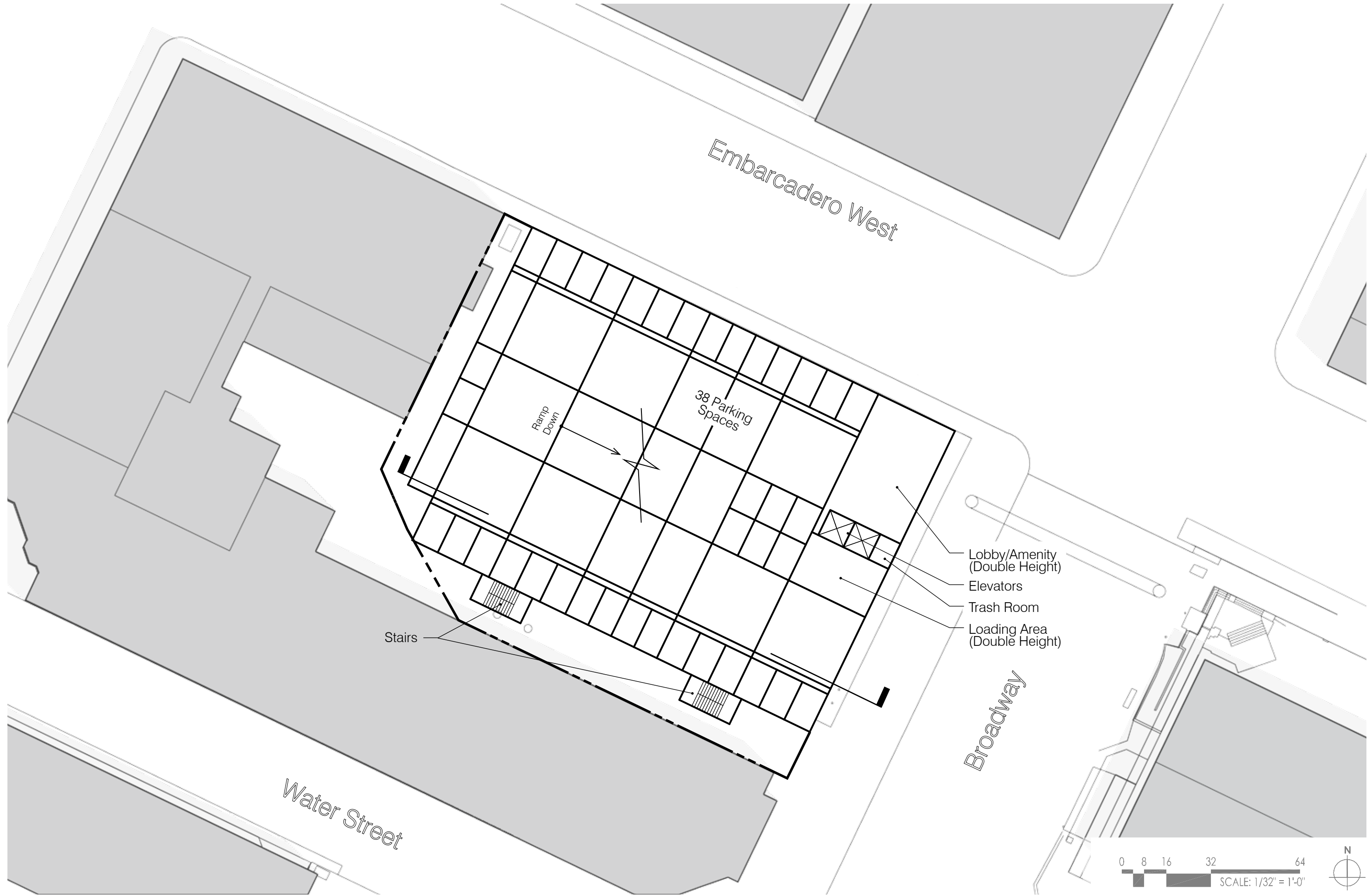


Site Plan



Parking Space Info
Ground Floor Parking: 53 Stalls
Second Floor Parking: 38 Stalls
Total Parking: 91 Stalls Provided
Total Required: 90 Stalls

First Floor Plan



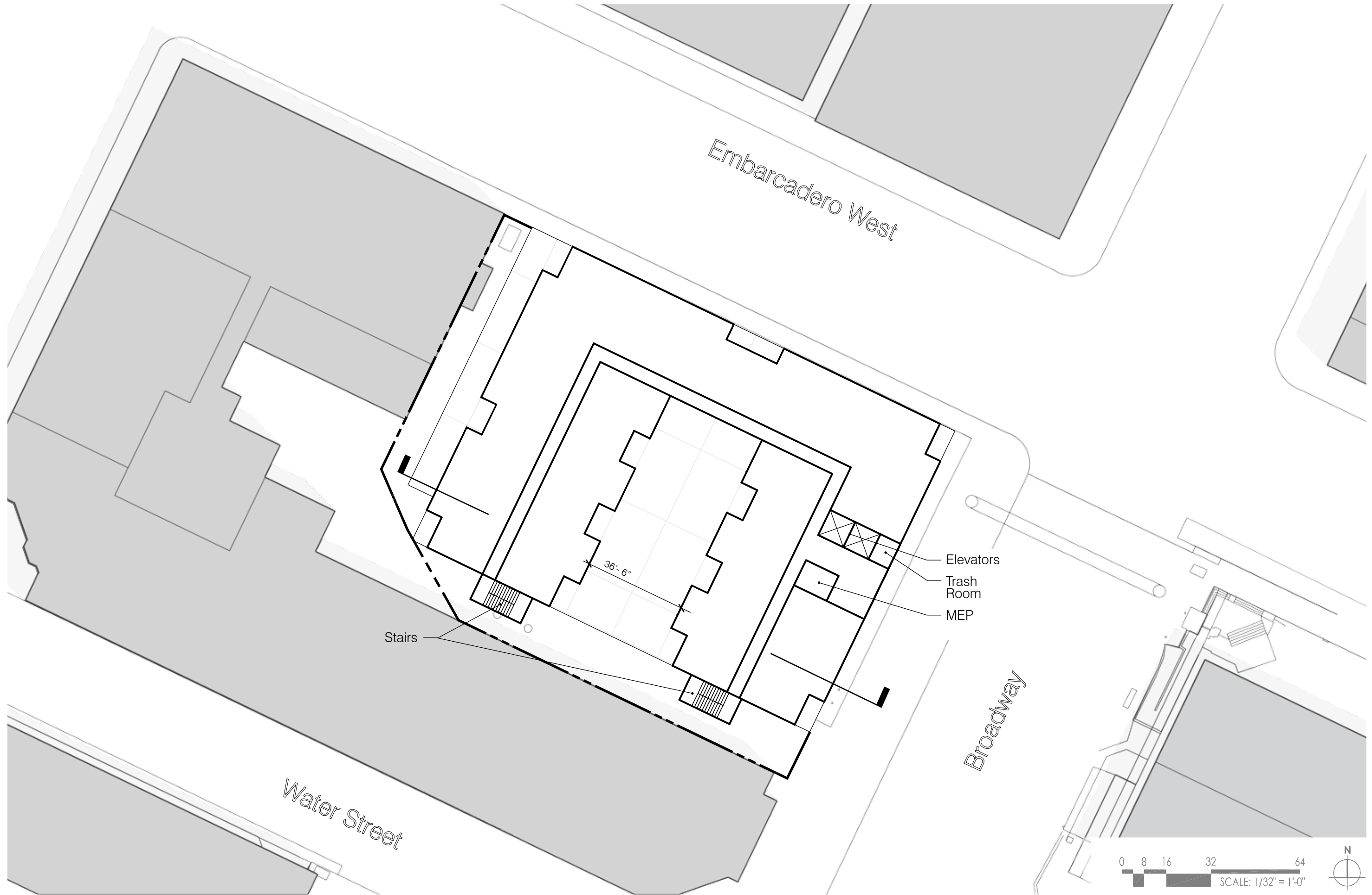
Second Floor Plan



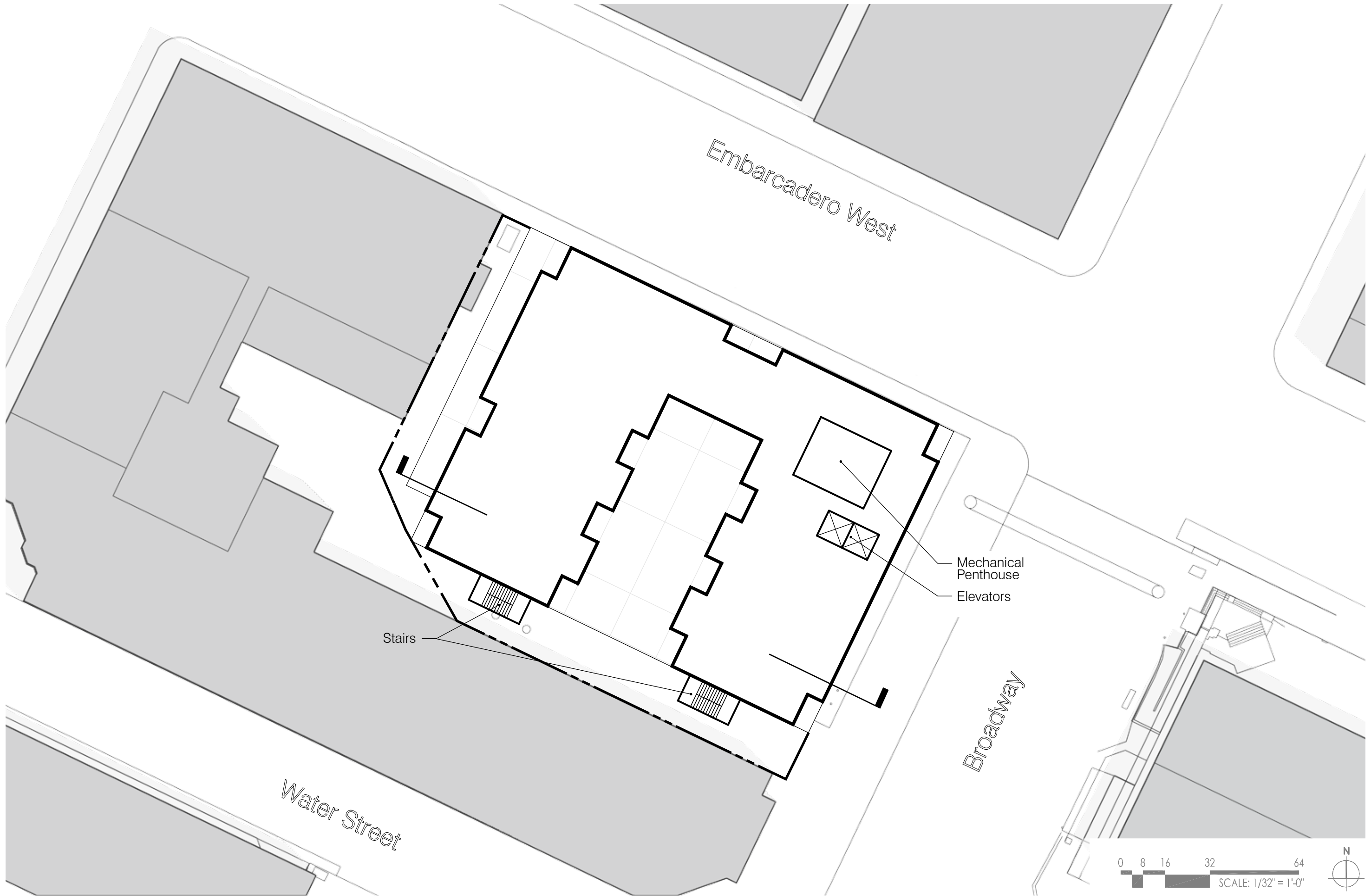
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Typical Plan (Third - Eighth Floor)

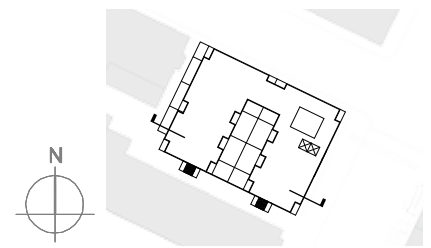
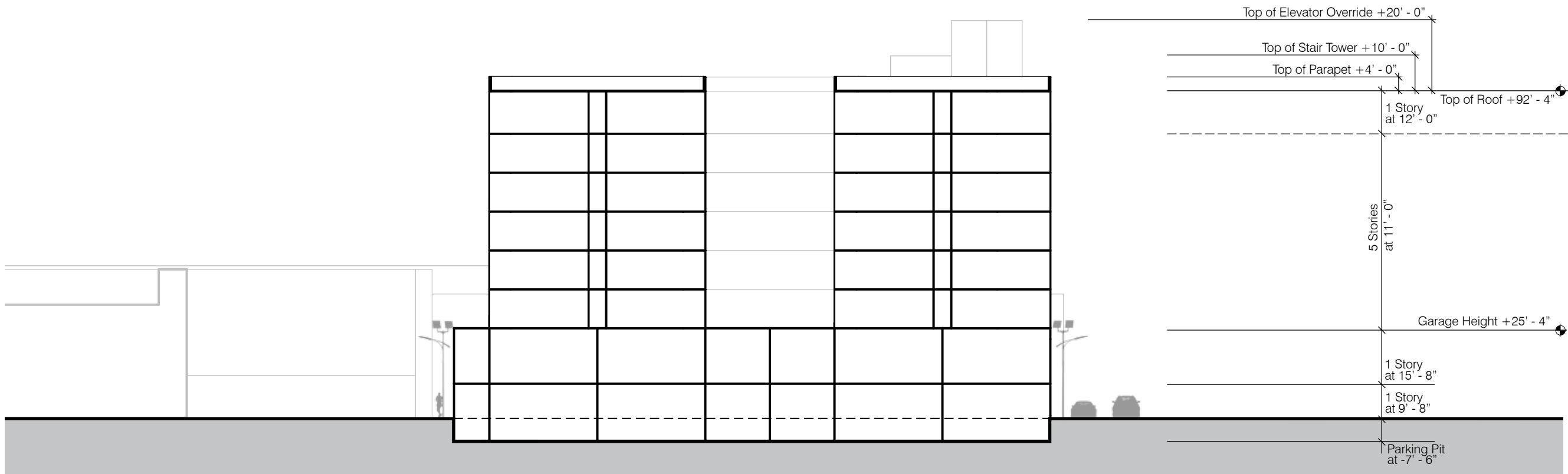


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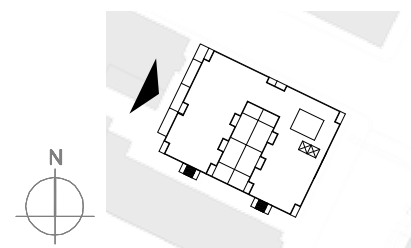
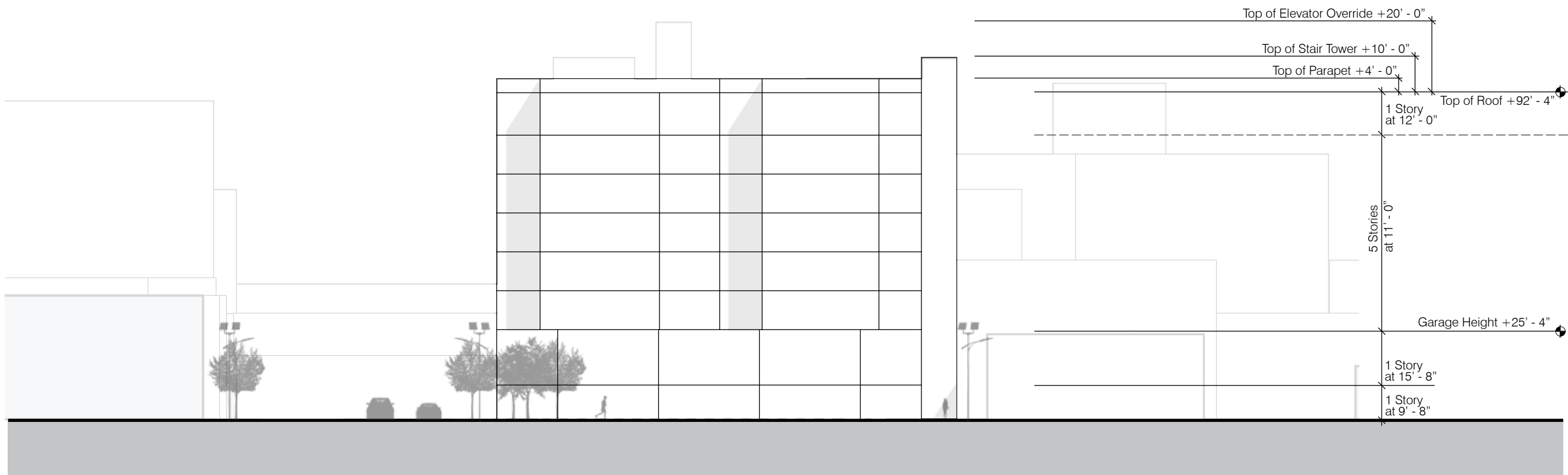


Roof Plan



Section





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SCALE: 1/32" = 1'-0"

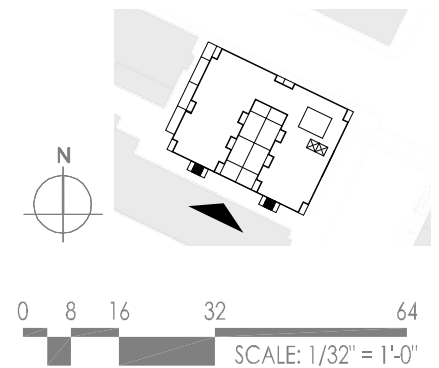
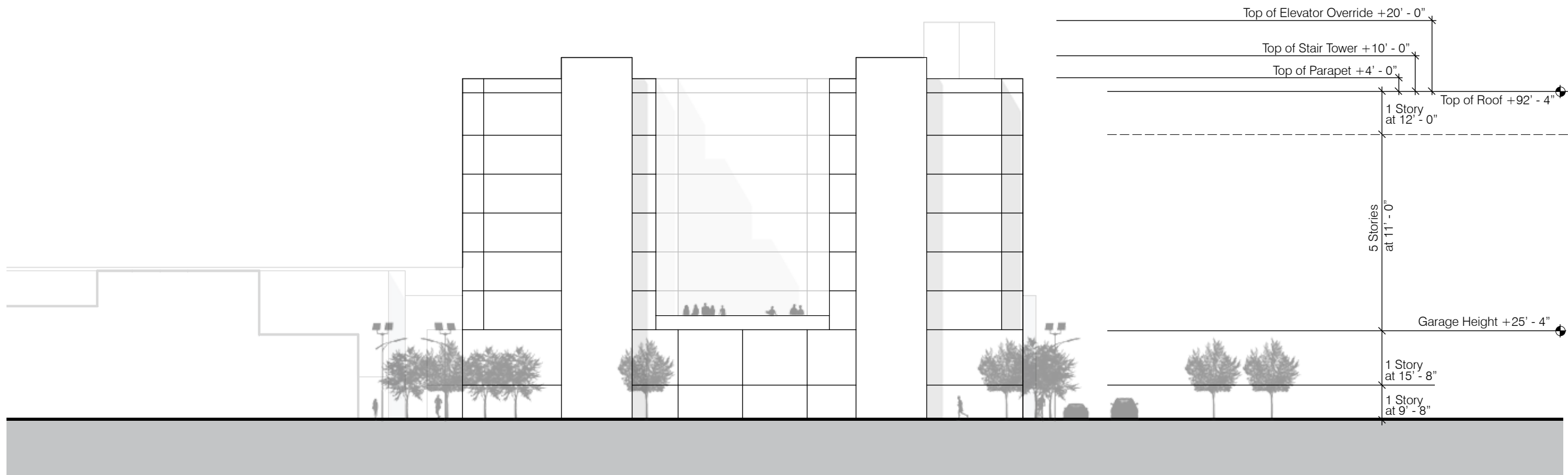
West Elevation



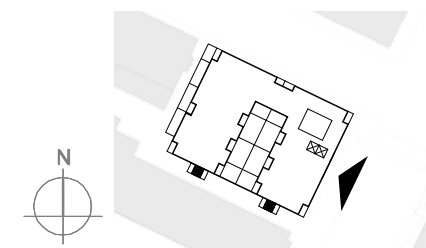
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PARCEL D

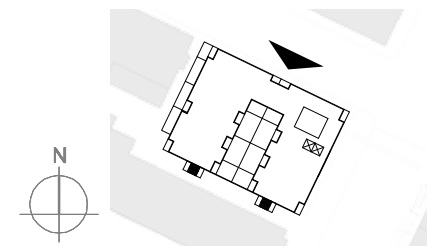
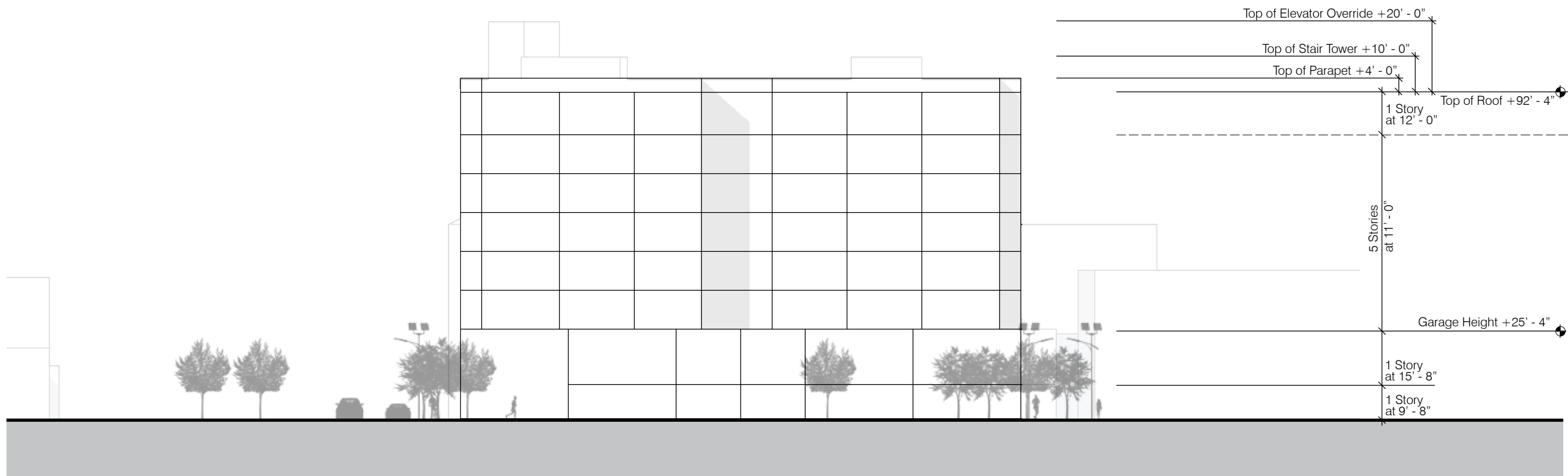
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South Elevation

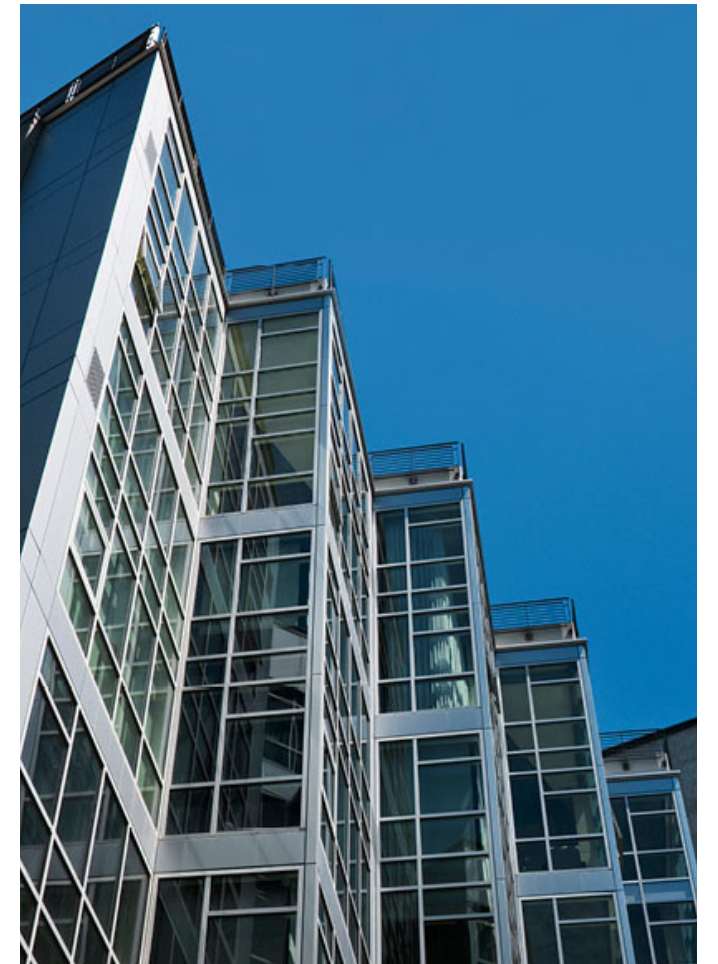
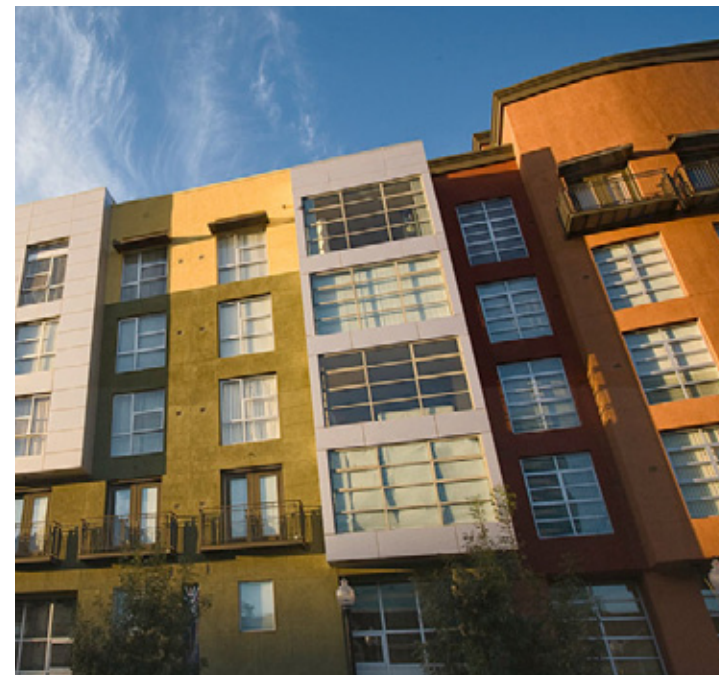
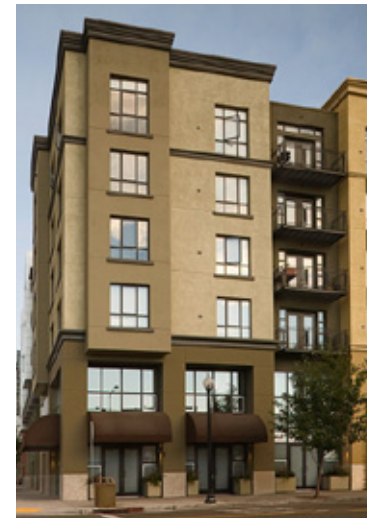


East Elevation



North Elevation

Colors, Finishes and Materials to be
selected during FDP Phase

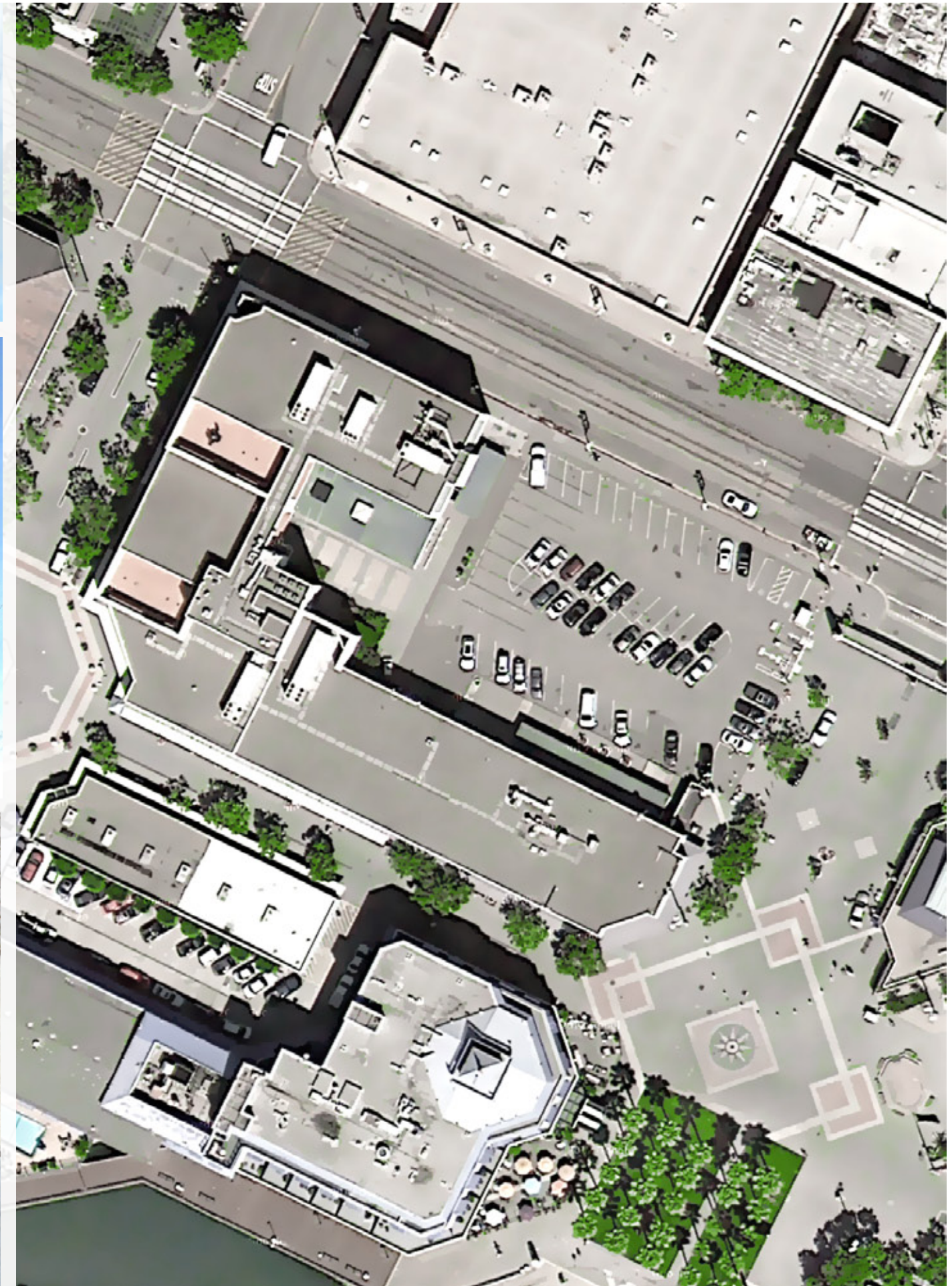
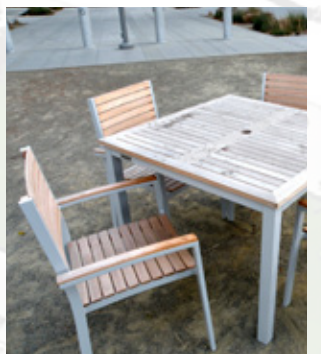
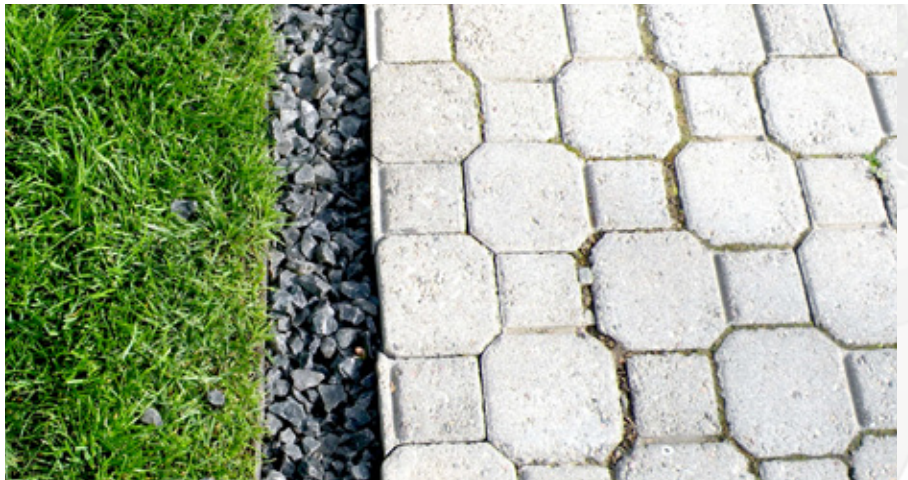


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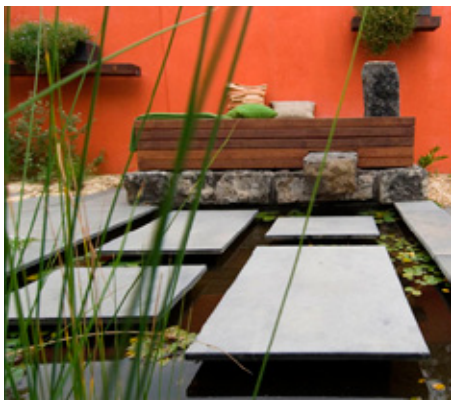
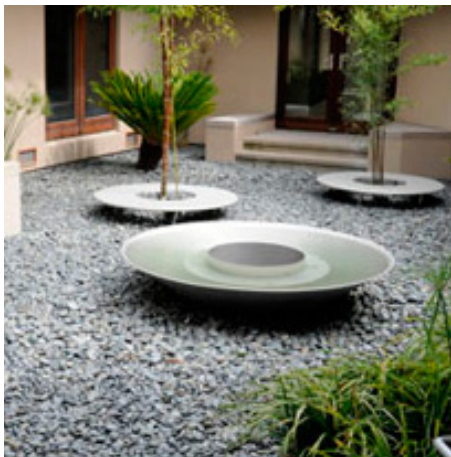
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OAKLAND, CALIFORNIA
PARCEL D



Exterior Design Study



Existing Landscape and Lighting

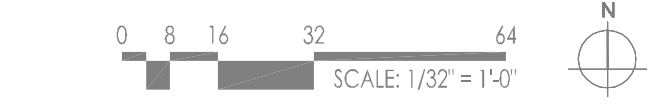


Amenity, Landscape and Lighting Study

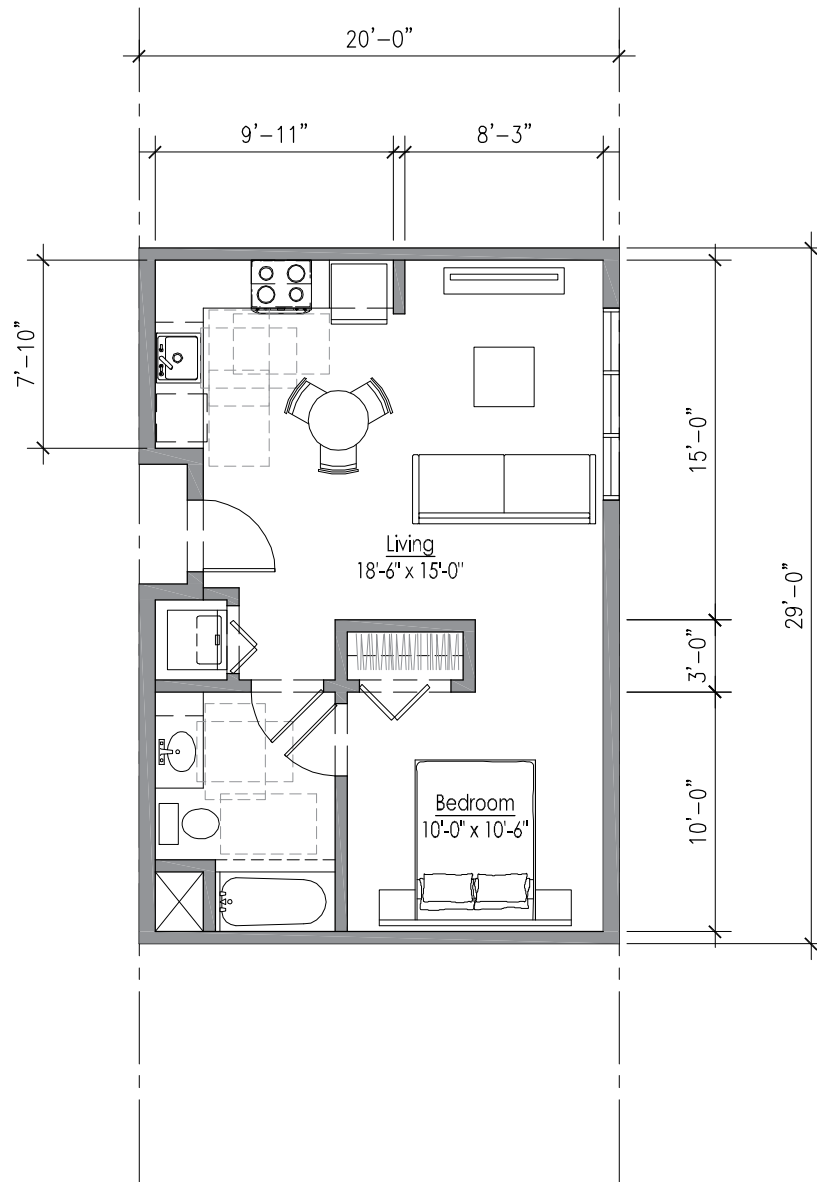


Open Space Calculations

Required Group Open Space:	13,500 sf
Provided Podium Courtyard Space:	3,175 sf
Provided Private Podium Space:	1,025
Provided Private Balcony Space:	2,370 sf
At Grade Open Space:	3,585 sf
Total Space Provided: 3,175 + (1,025 x 2) + (2,370 x 2) + 3,585 = 13,550 sf of Total Open Space	



Proposed Landscape and Lighting Plan

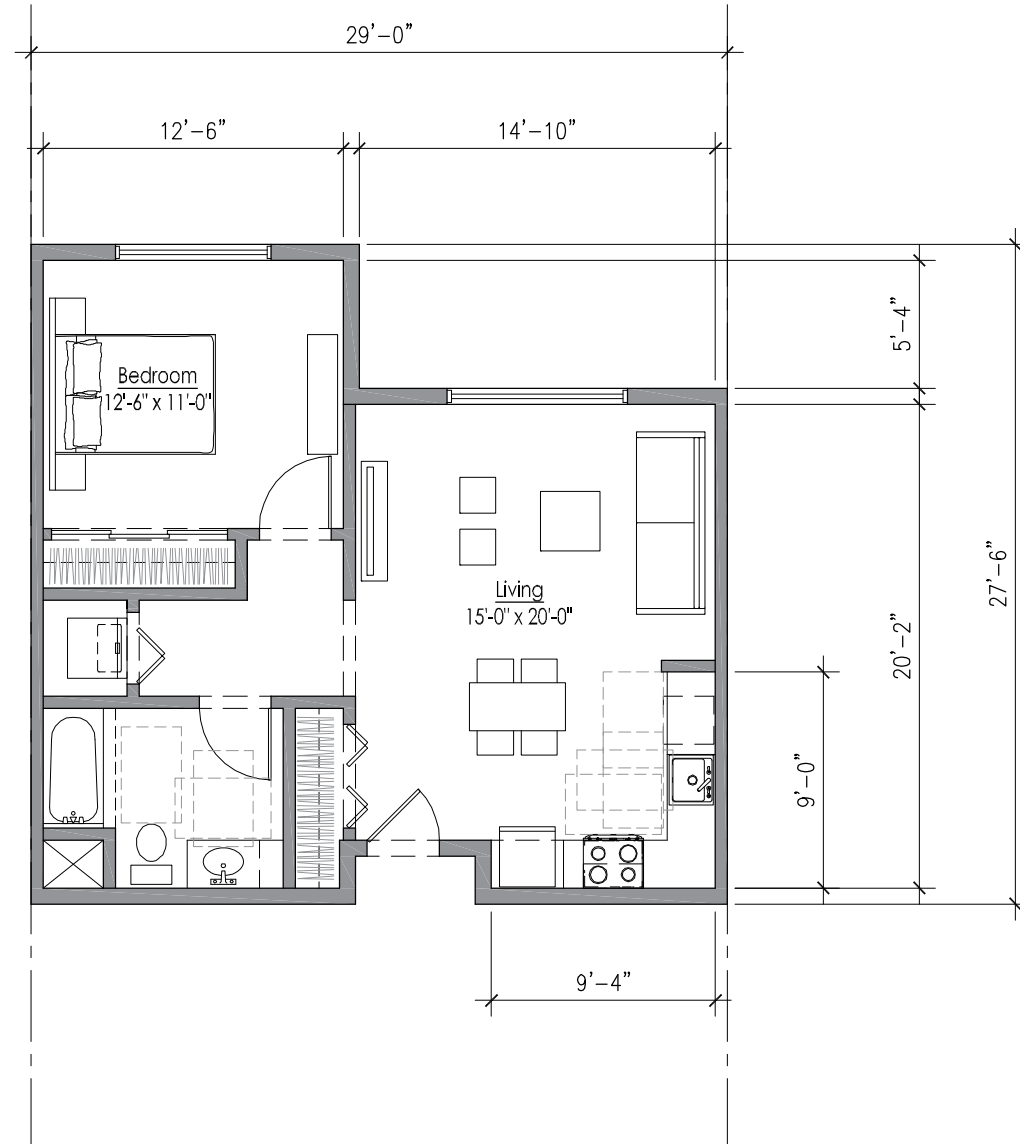


Unit A - Junior One Bed/One Bath

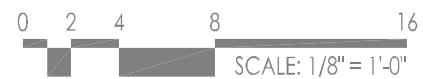
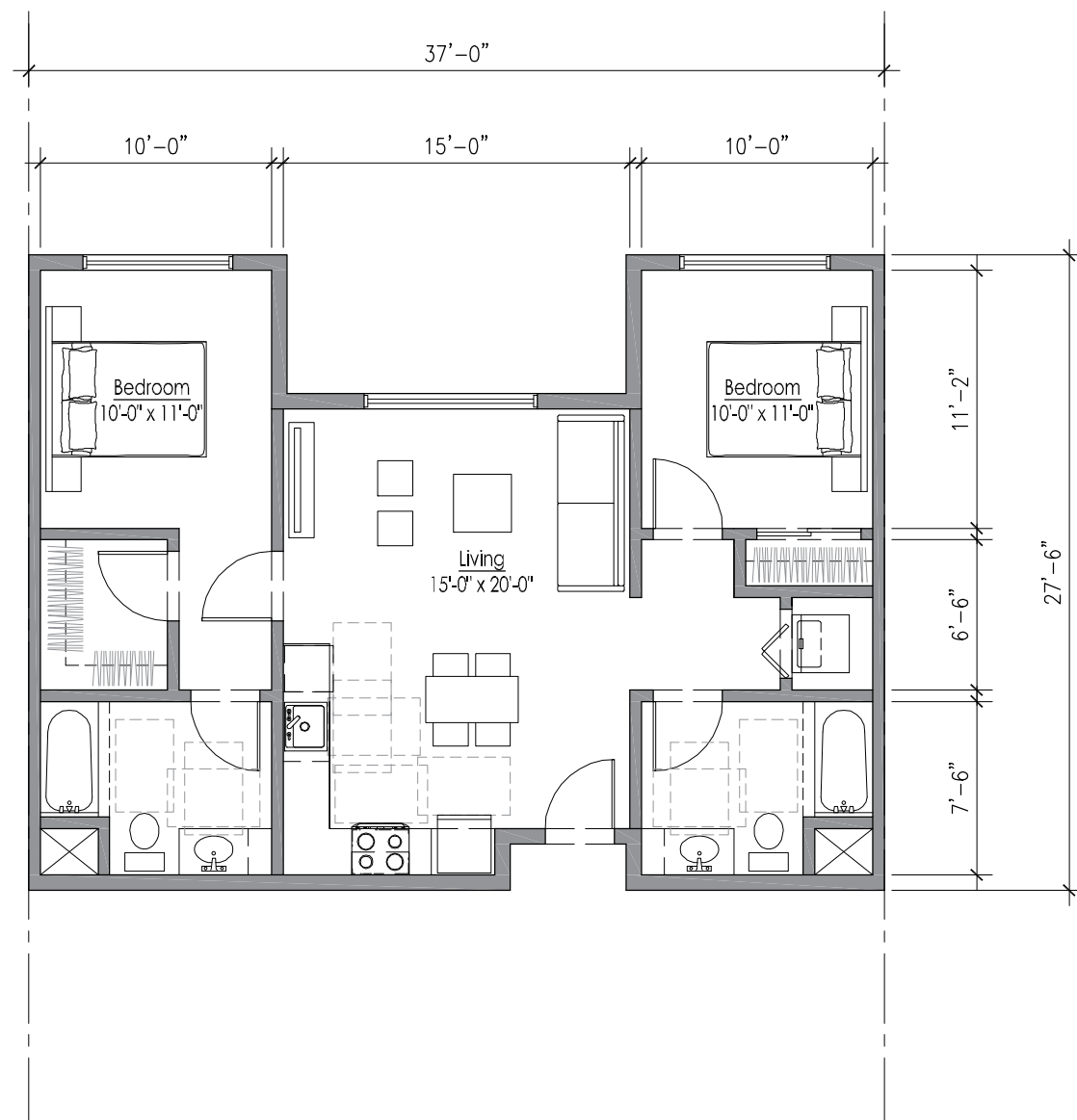


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Unit B - One Bed/One Bath



Unit C - Two Bed/Two Bath



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google maps dated 8/29/2012

13 over 4
167 Units
Parcel D



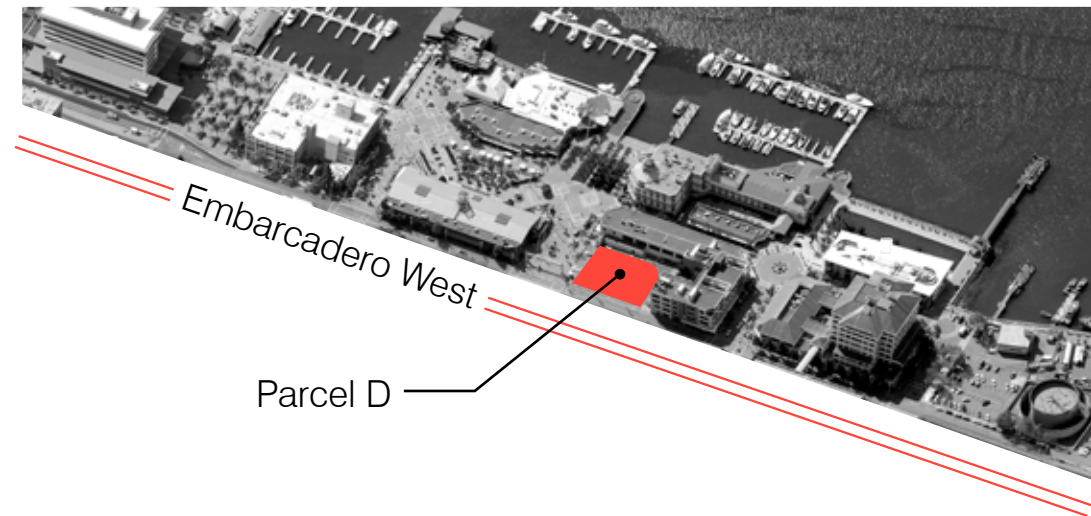
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Embarcadero West Panoramic

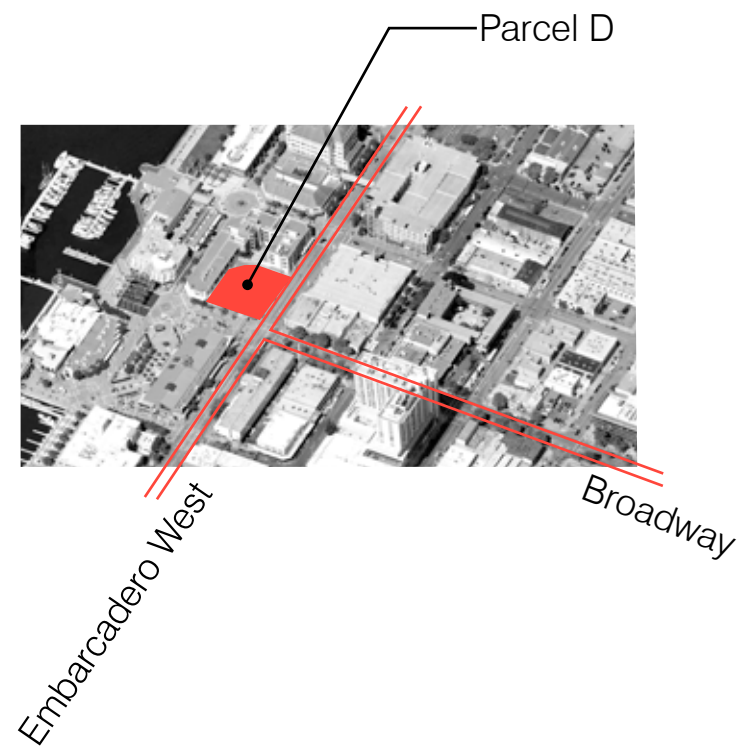
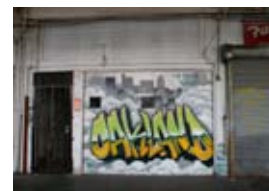
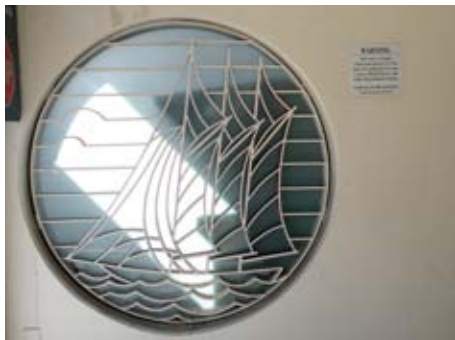


San Francisco Bay Existing Building Water St. Existing Building **Parcel D** Embacadero West Existing Buildings 2nd St. Existing Buildings

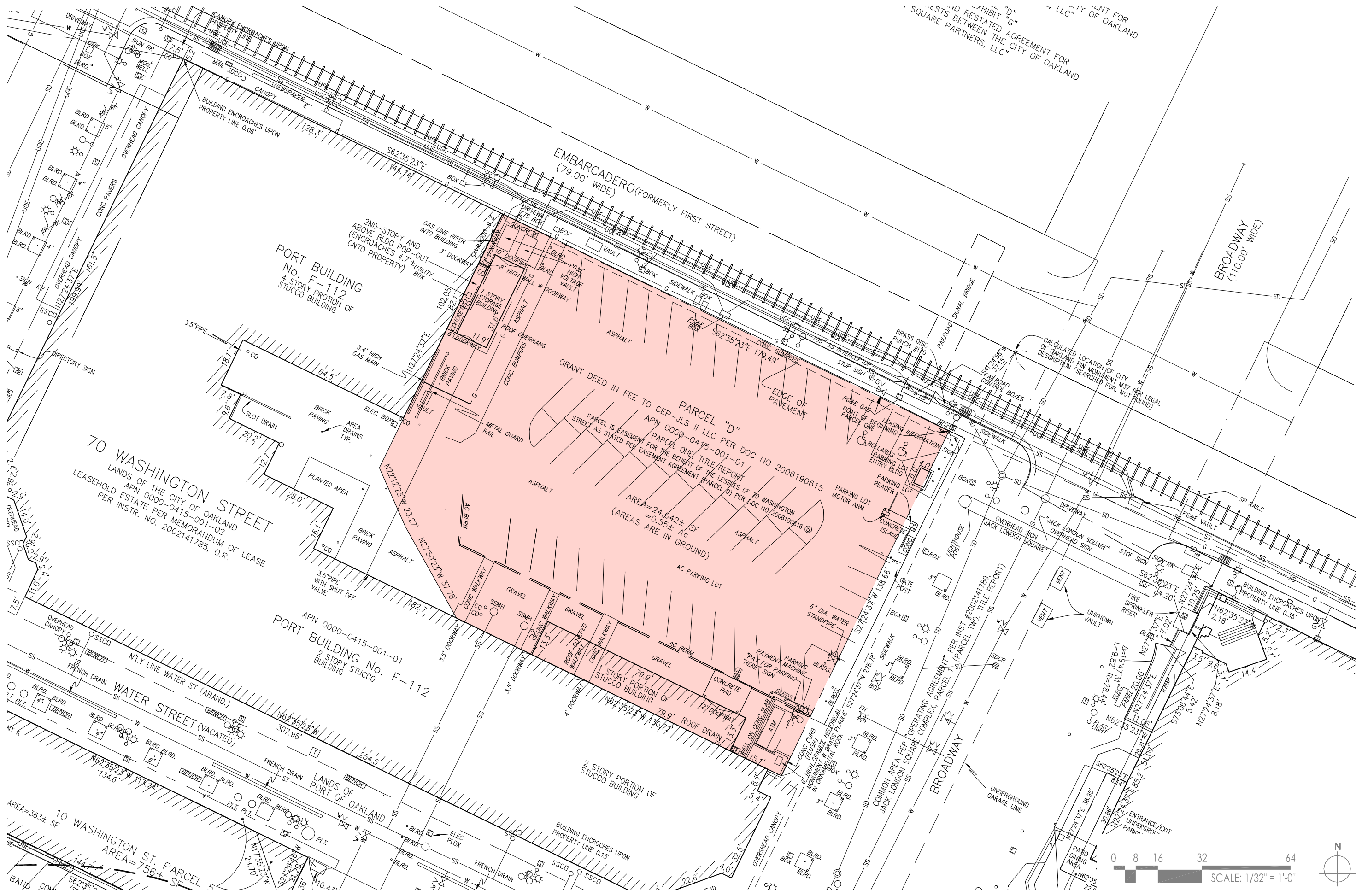


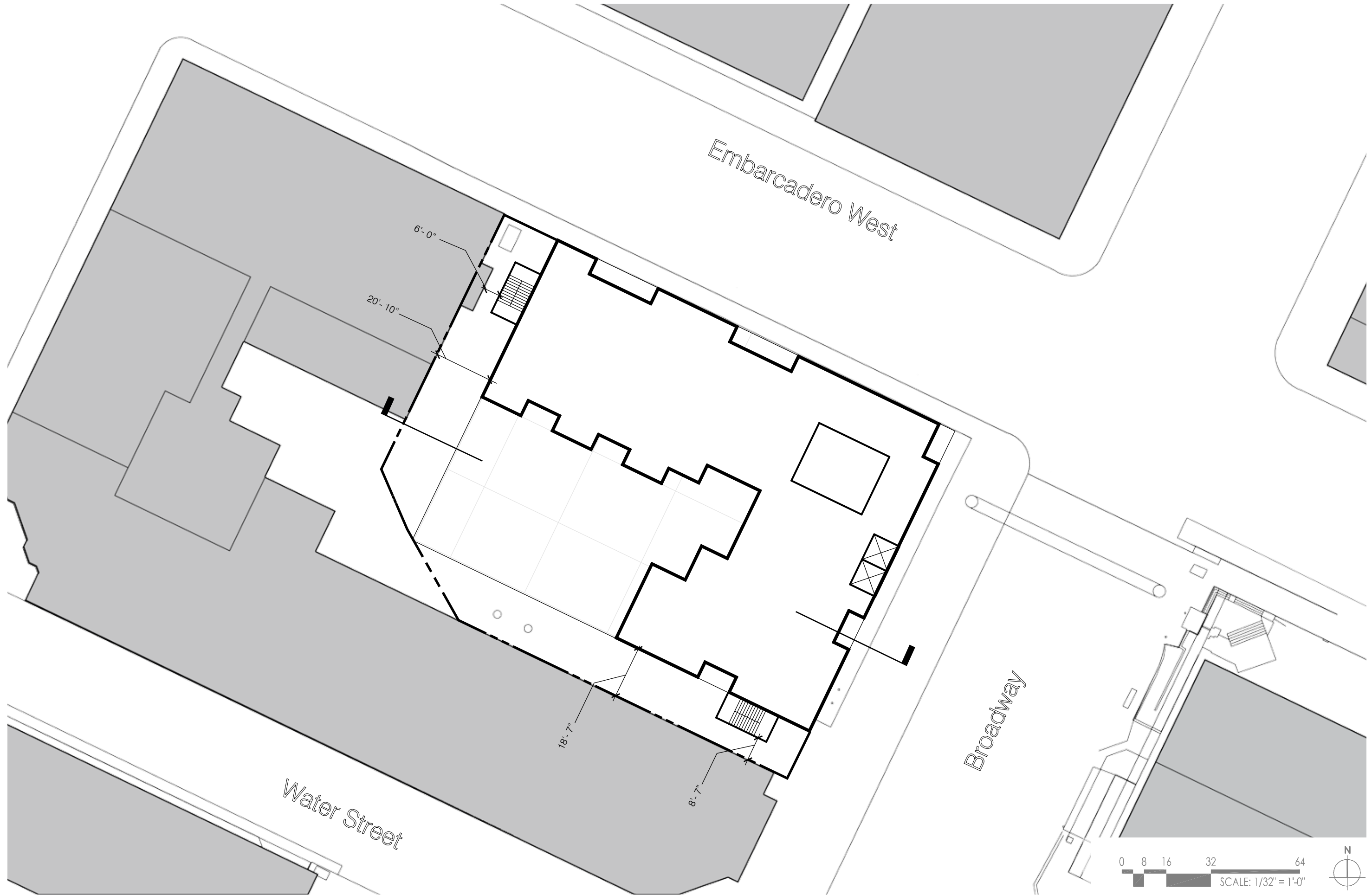
Parcel D Broadway

Broadway Panoramic



Parcel D Contextual Photos





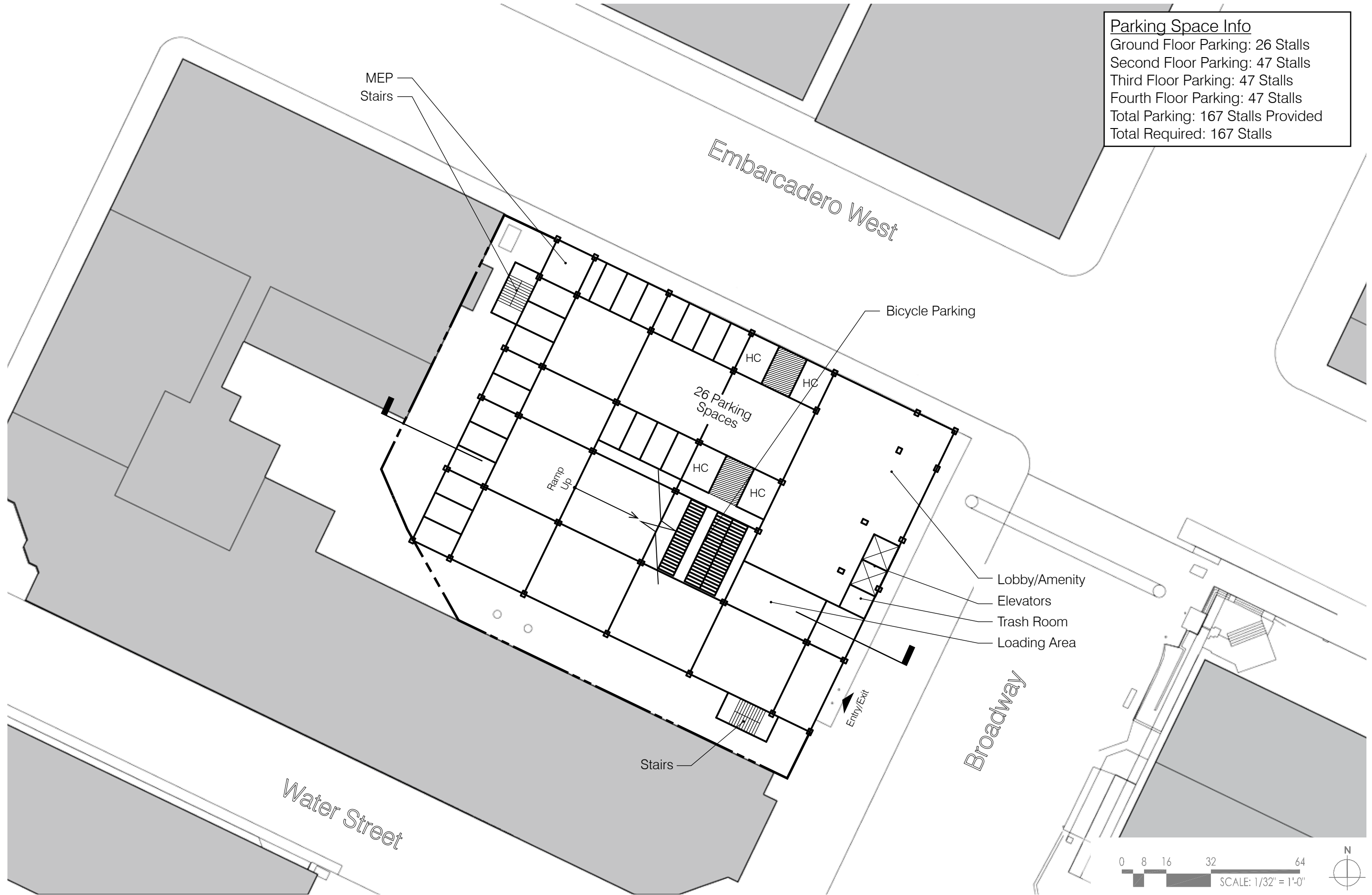
Site Plan



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OAKLAND, CALIFORNIA

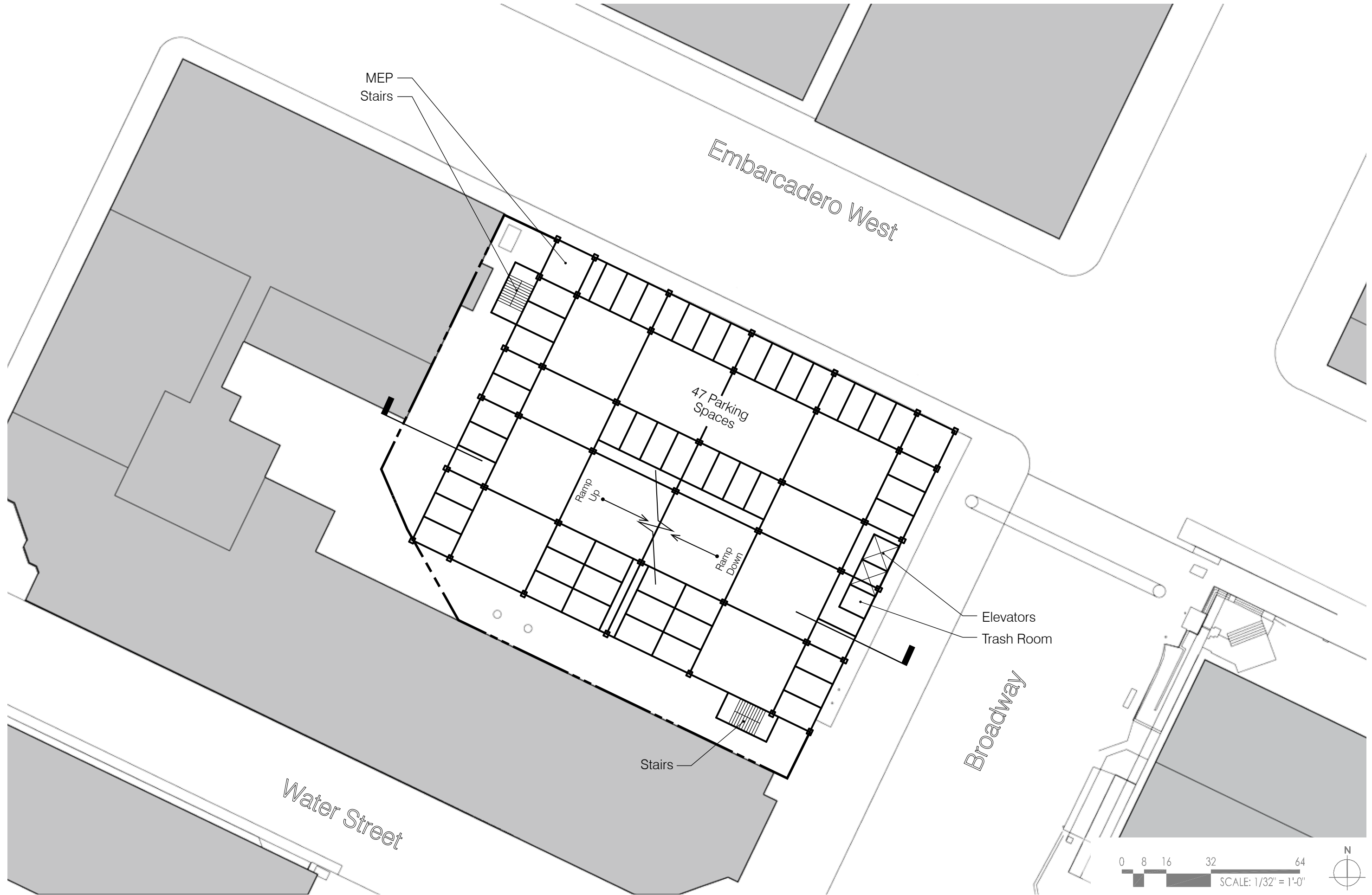
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Parking Space Info
 Ground Floor Parking: 26 Stalls
 Second Floor Parking: 47 Stalls
 Third Floor Parking: 47 Stalls
 Fourth Floor Parking: 47 Stalls
 Total Parking: 167 Stalls Provided
 Total Required: 167 Stalls

First Floor Plan



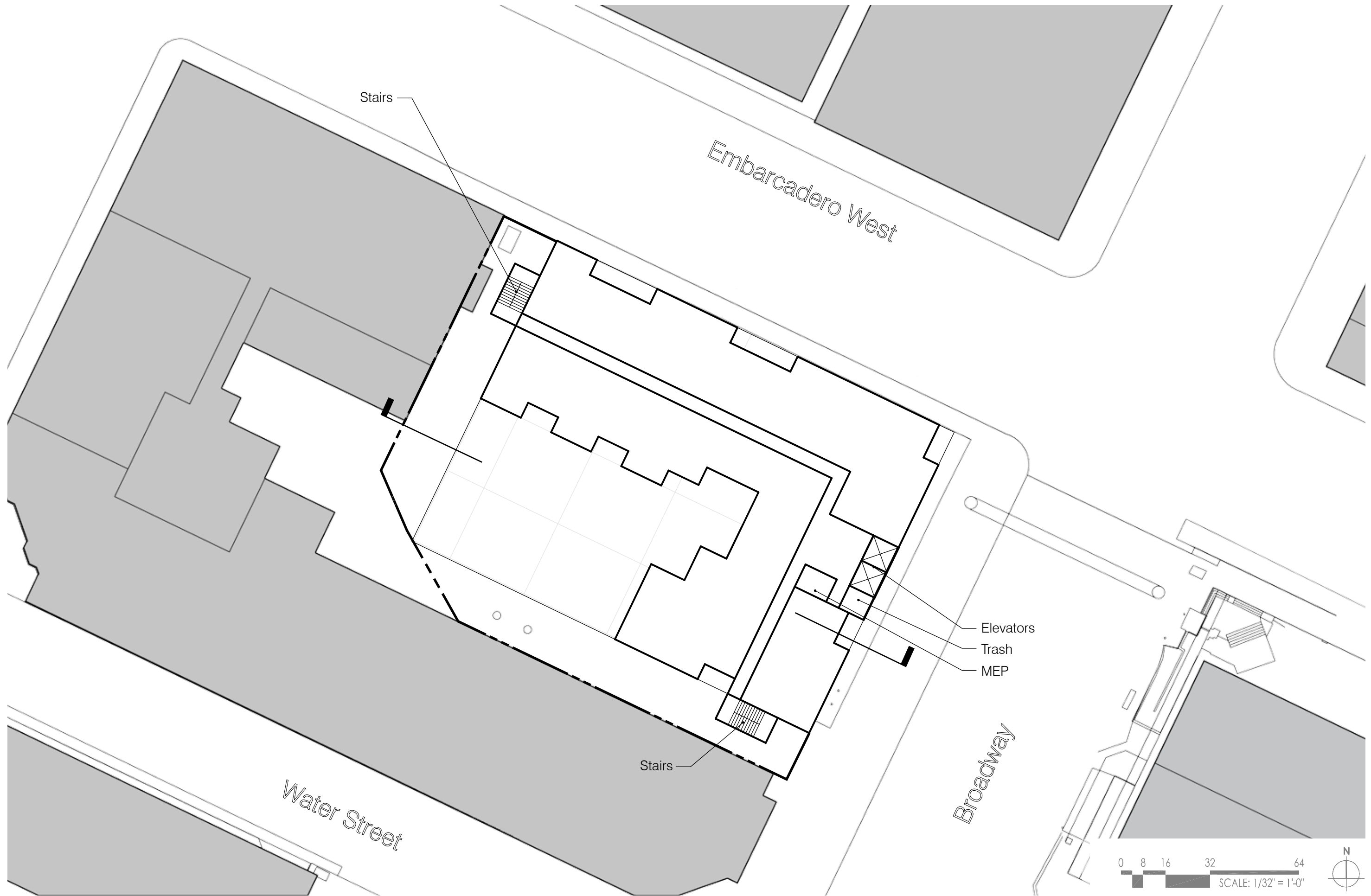
Second - Fourth Floor Plan



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OAKLAND, CALIFORNIA

PARCEL D

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Stairs

Embarcadero West

Elevators
Trash
MEP

Stairs

Water Street

Broadway



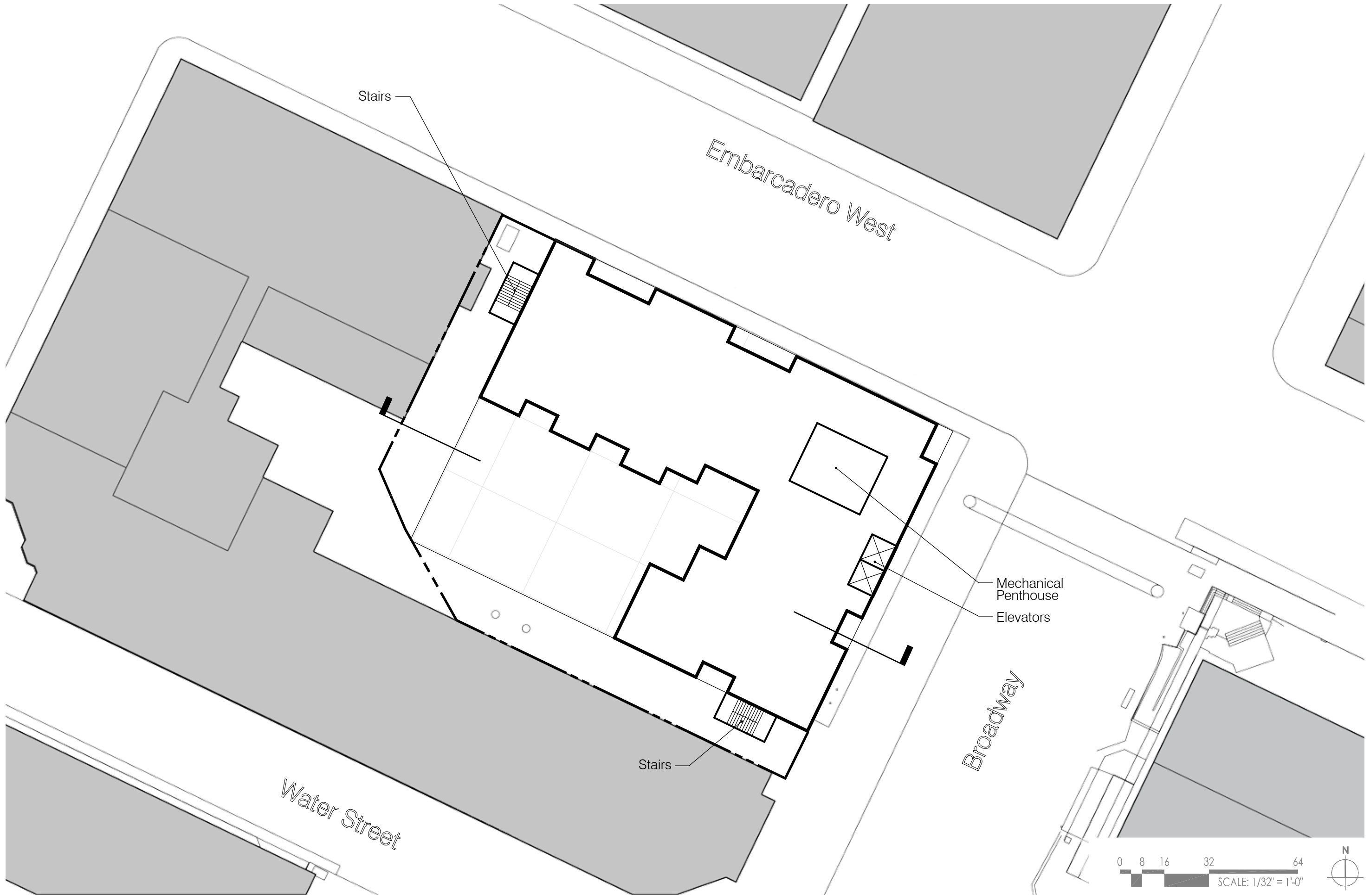
Typical Plan (Fifth - Seventeenth Floor)

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Stairs

Embarcadero West

Mechanical
Penthouse

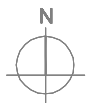
Elevators

Broadway

Stairs

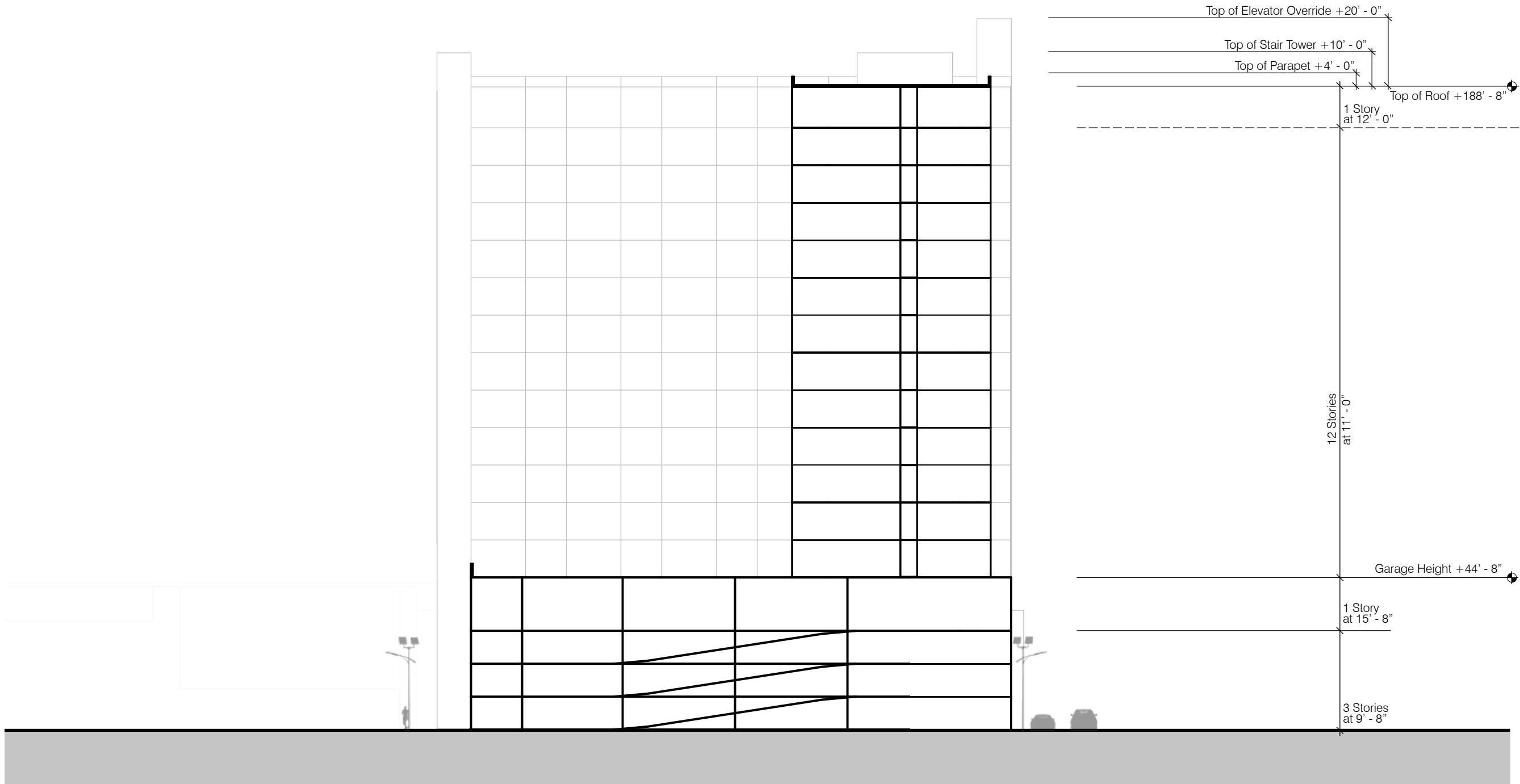
Water Street

0 8 16 32 64
SCALE: 1/32" = 1'-0"

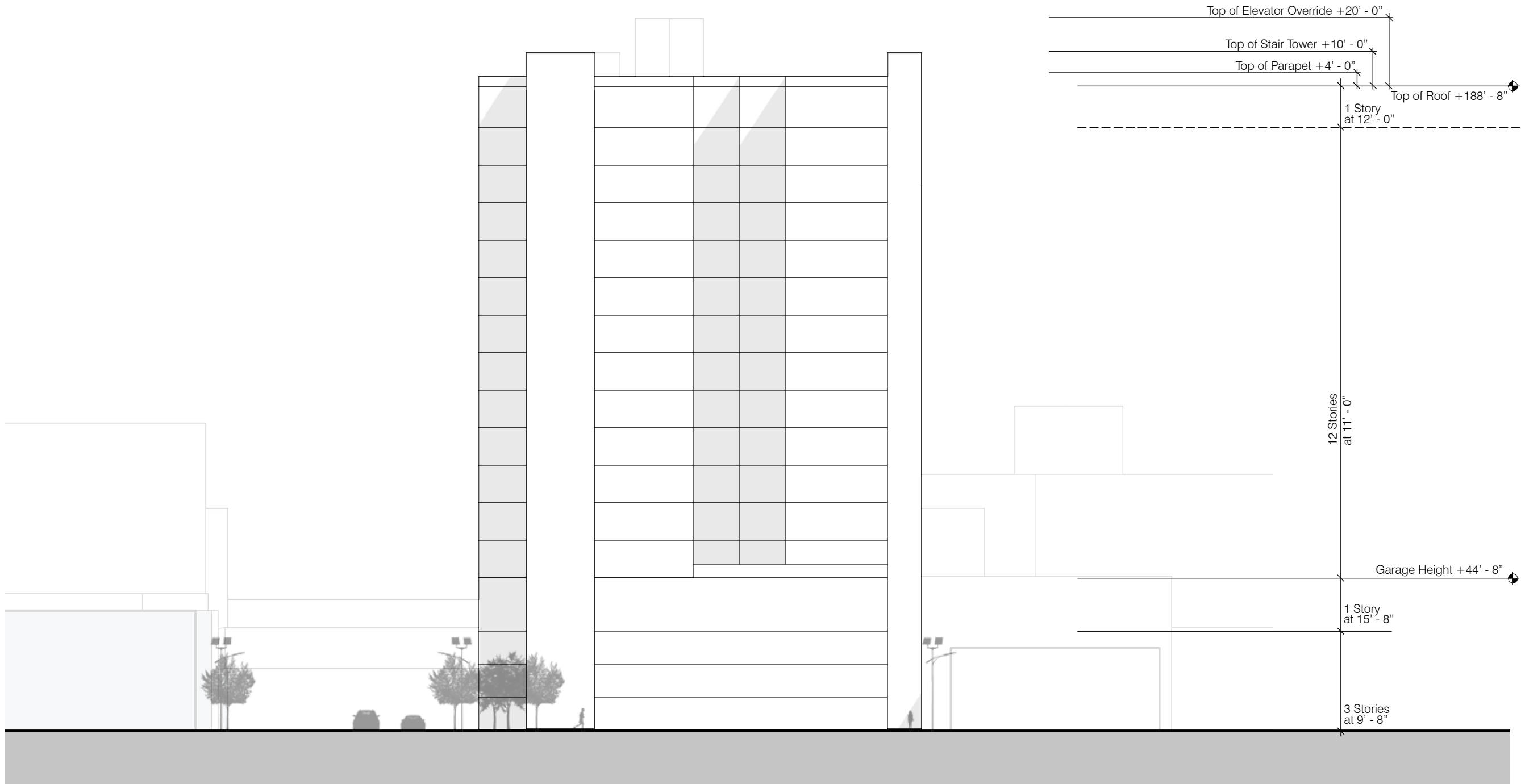


Roof Plan

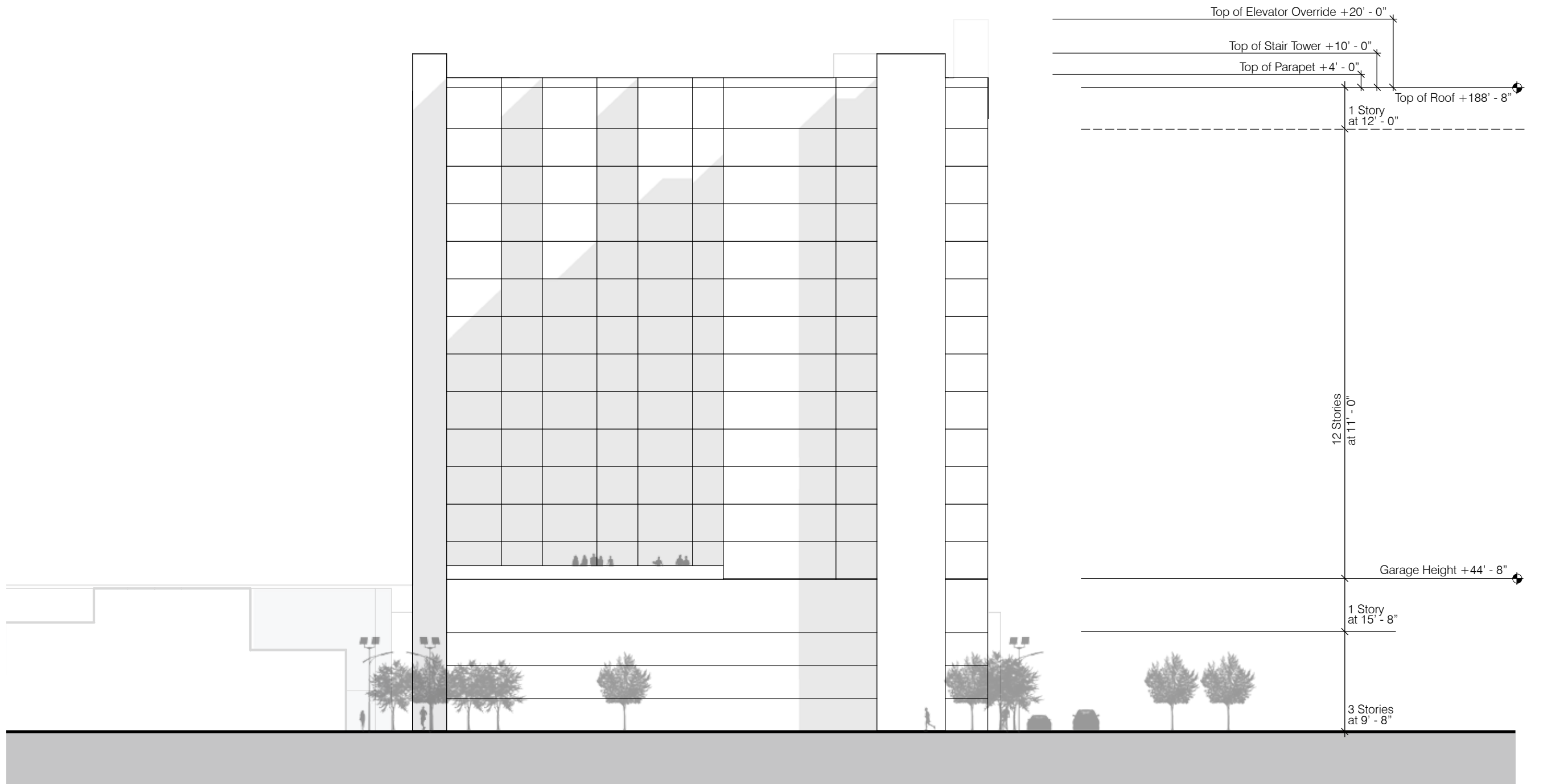




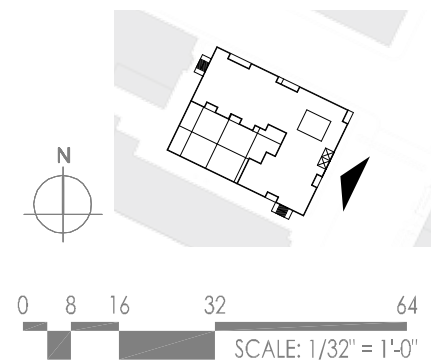
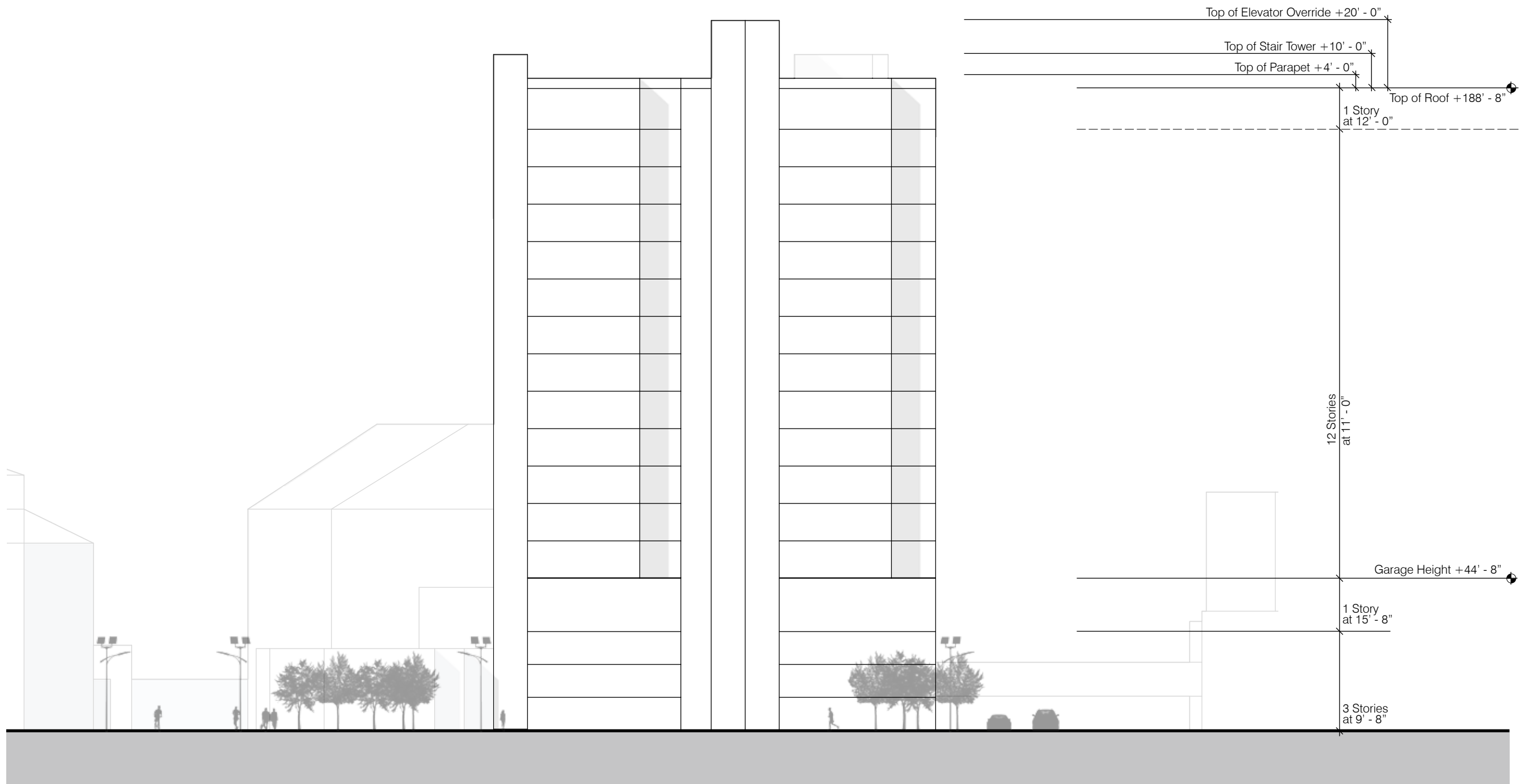
Section



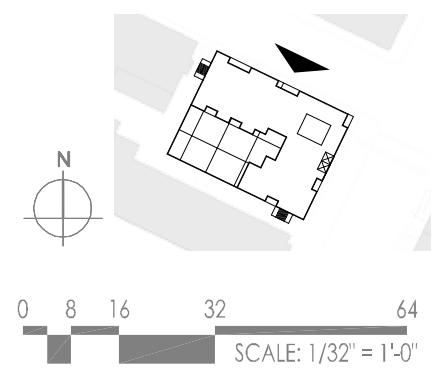
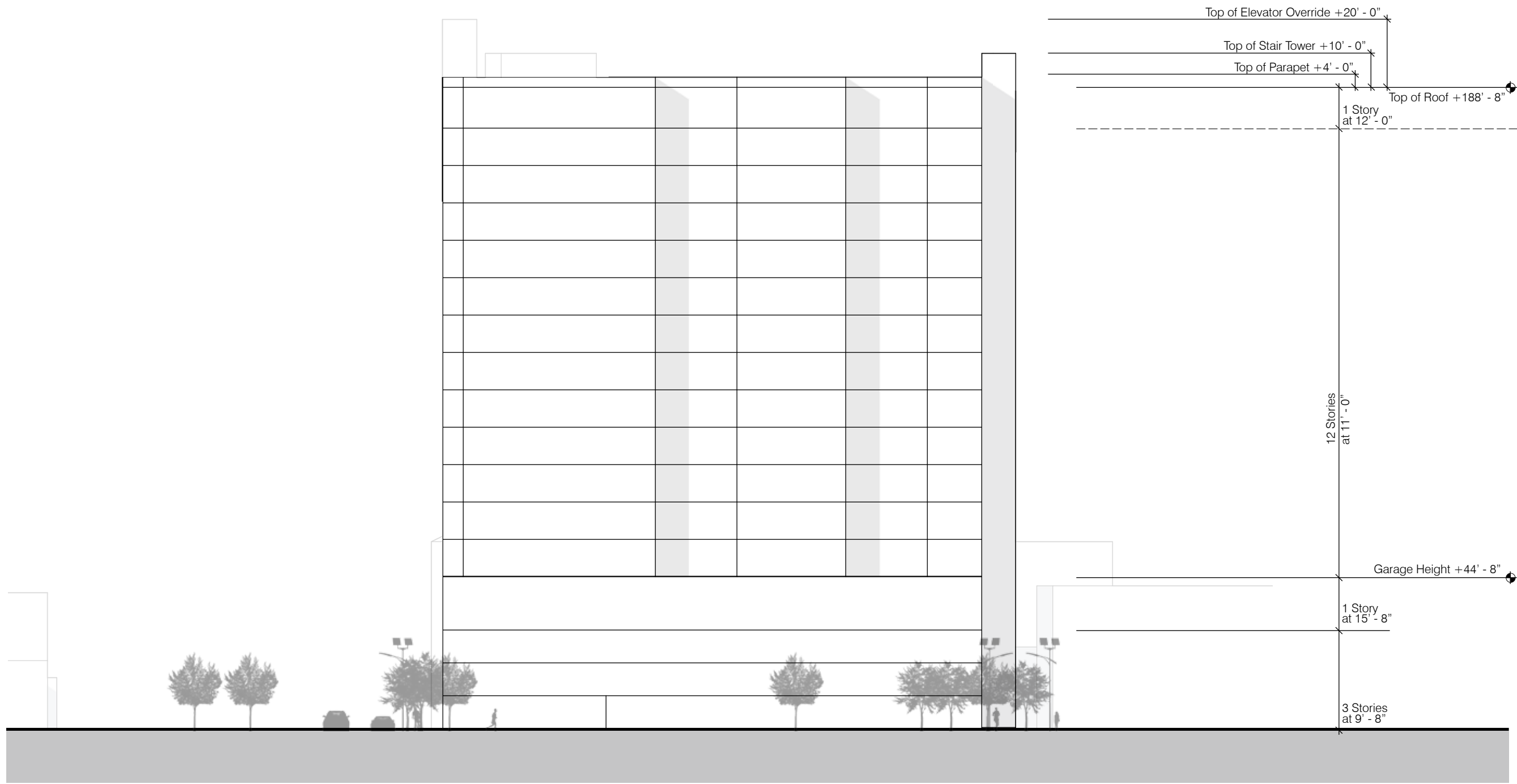
West Elevation



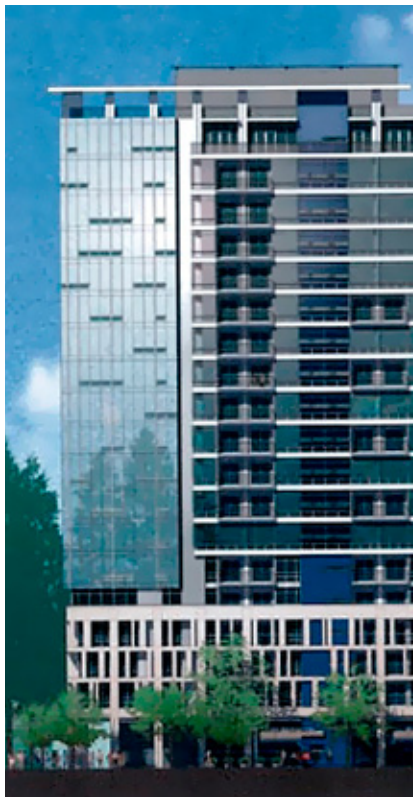
South Elevation



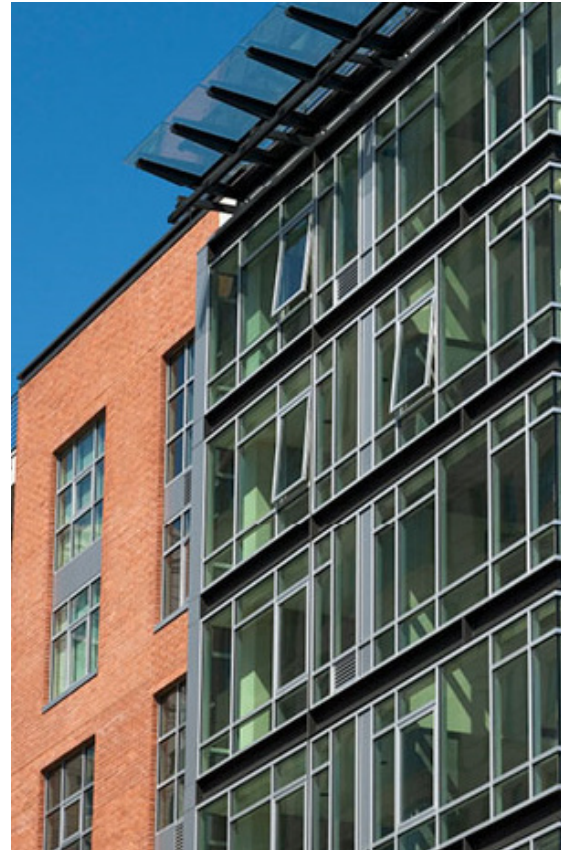
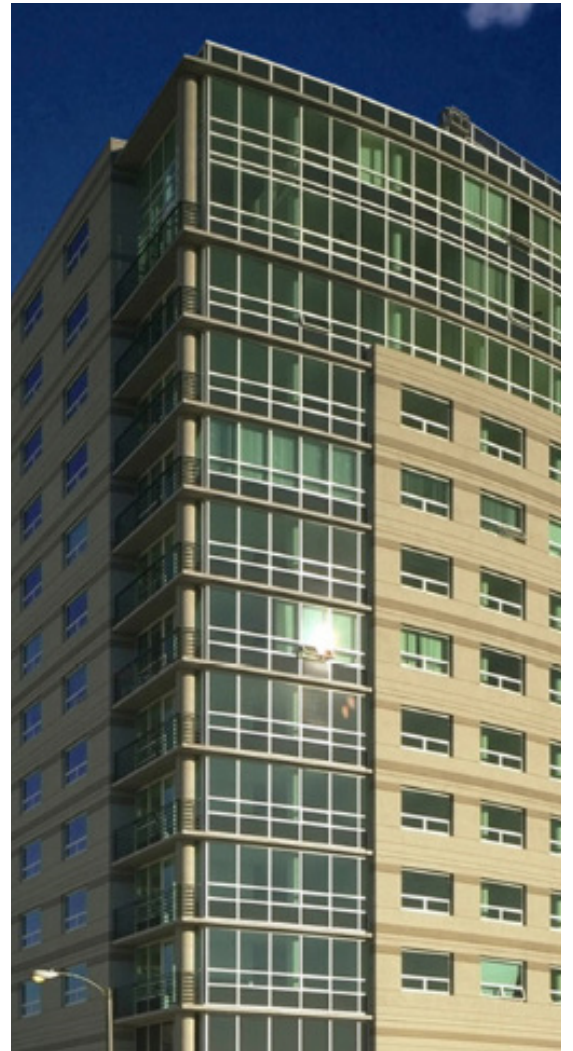
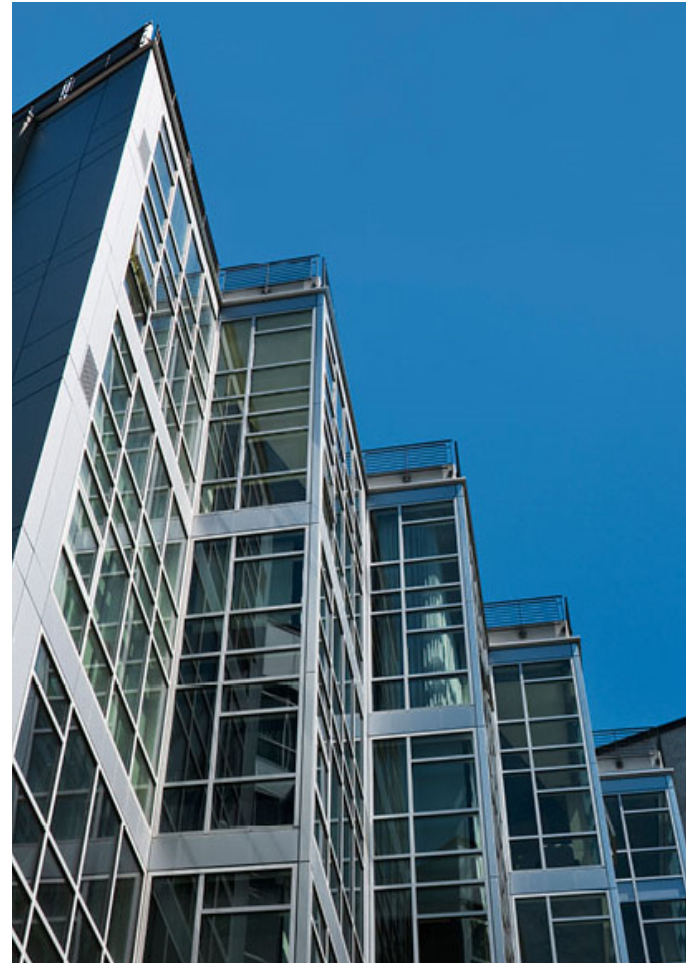
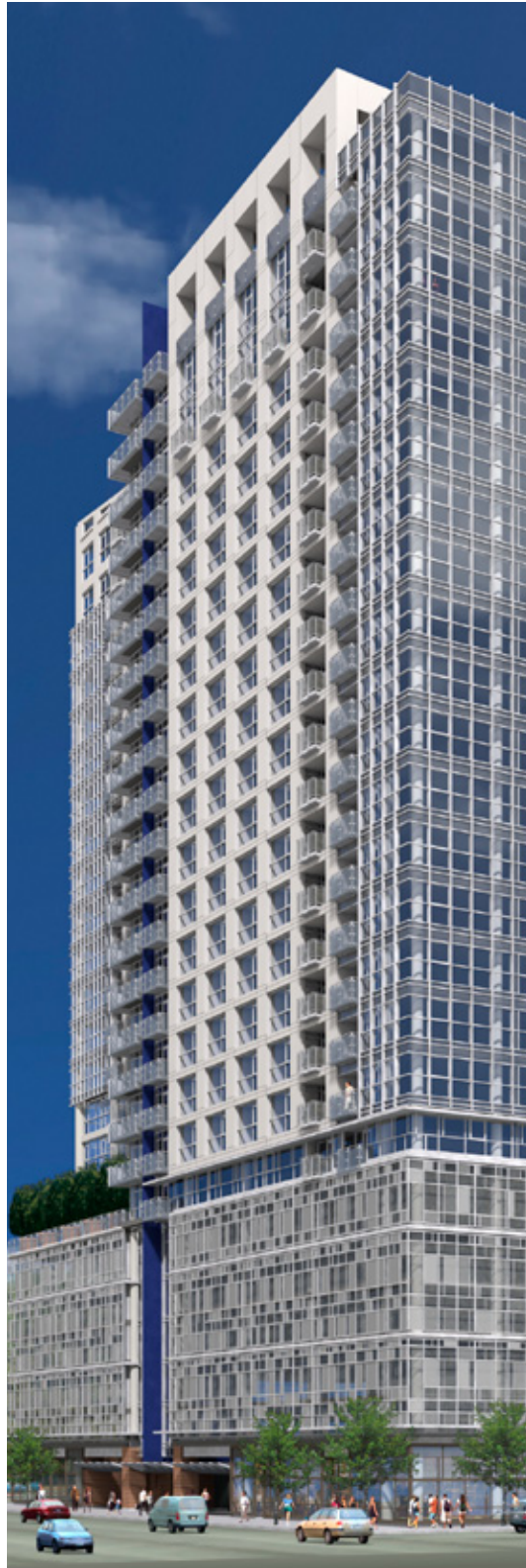
East Elevation



North Elevation



Colors, Finishes and Materials to be selected during FDP Phase



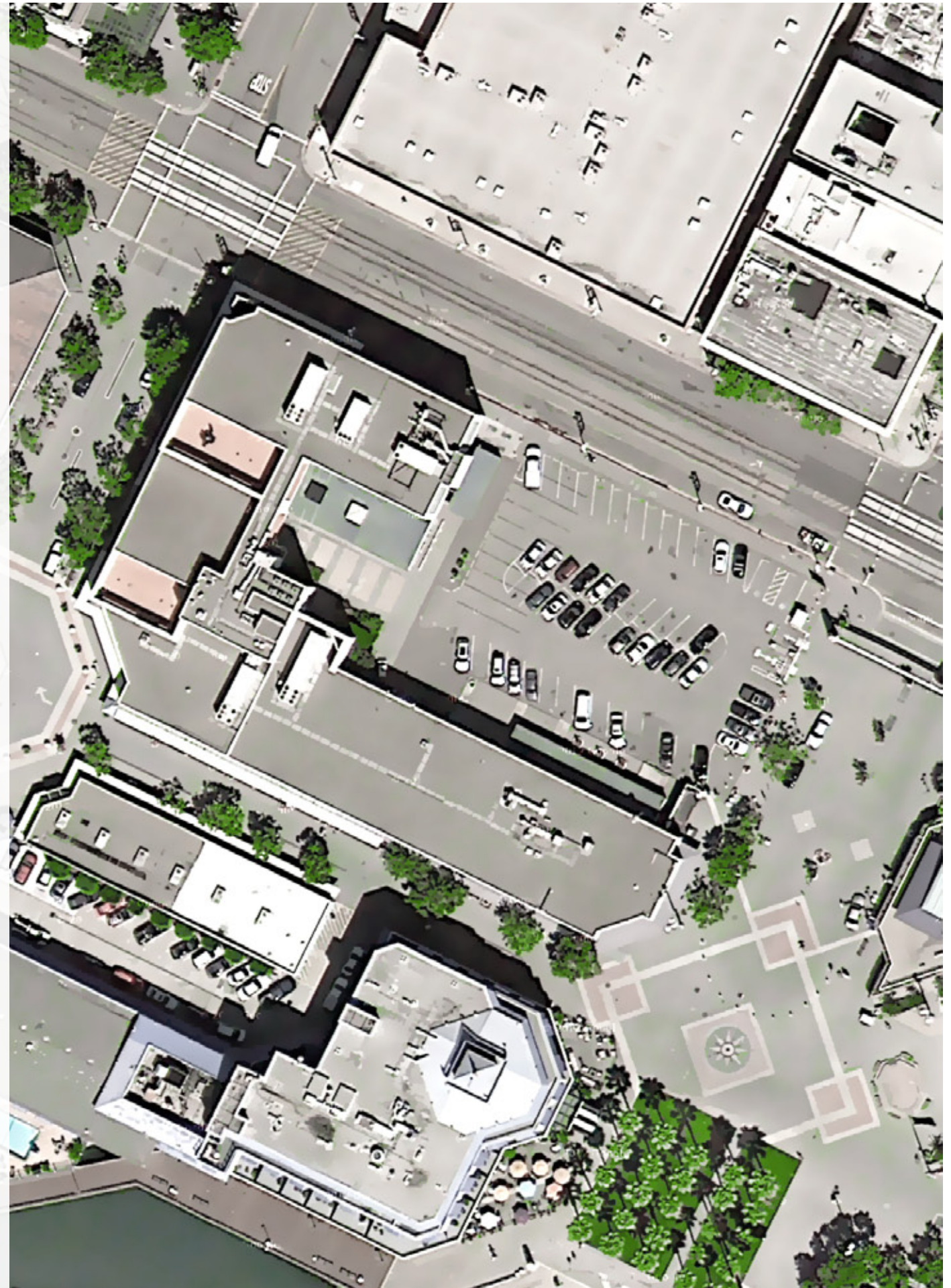
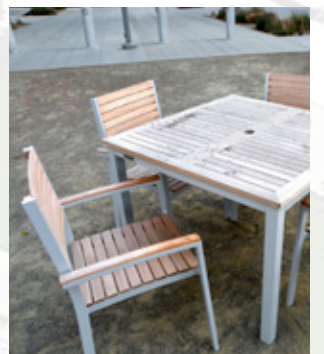
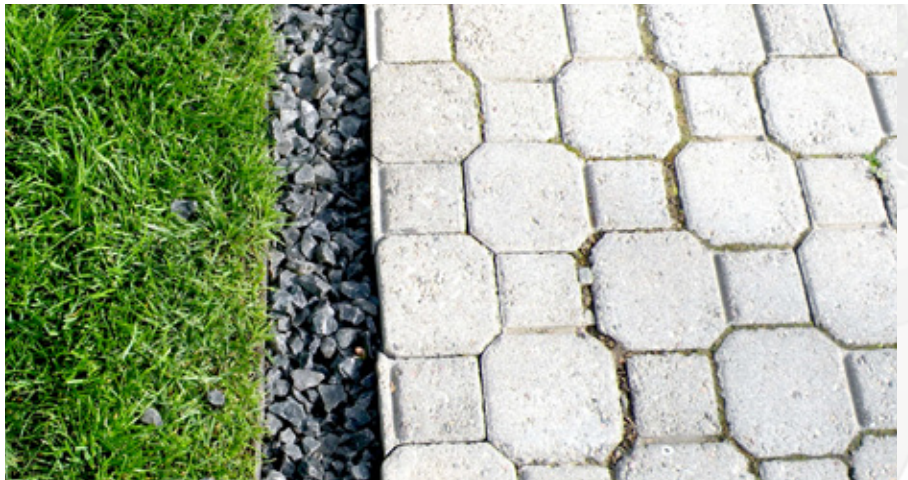
Exterior Design Study



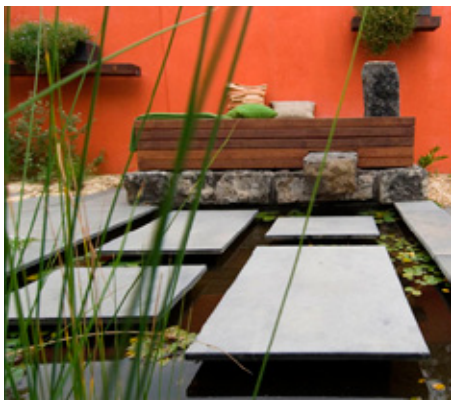
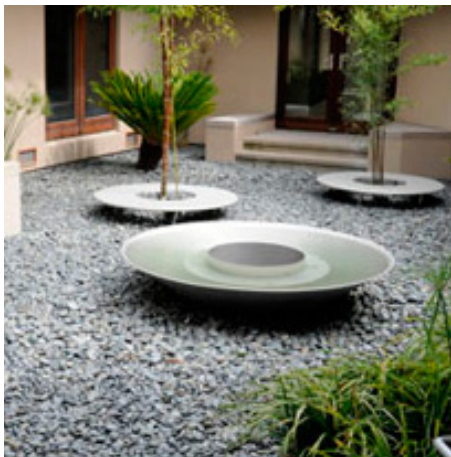
JACK LONDON SQUARE
OAKLAND, CALIFORNIA

PARCEL D

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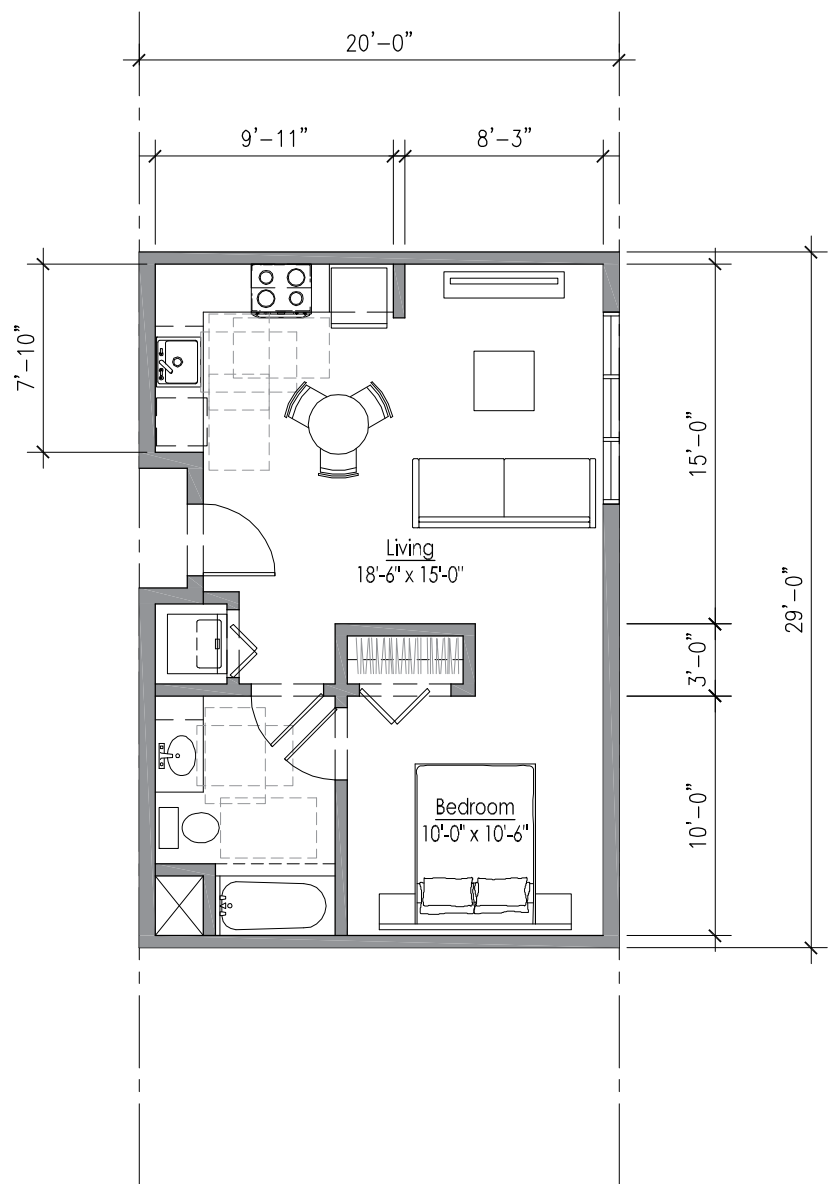
Existing Landscape and Lighting



Amenity, Landscape and Lighting Study

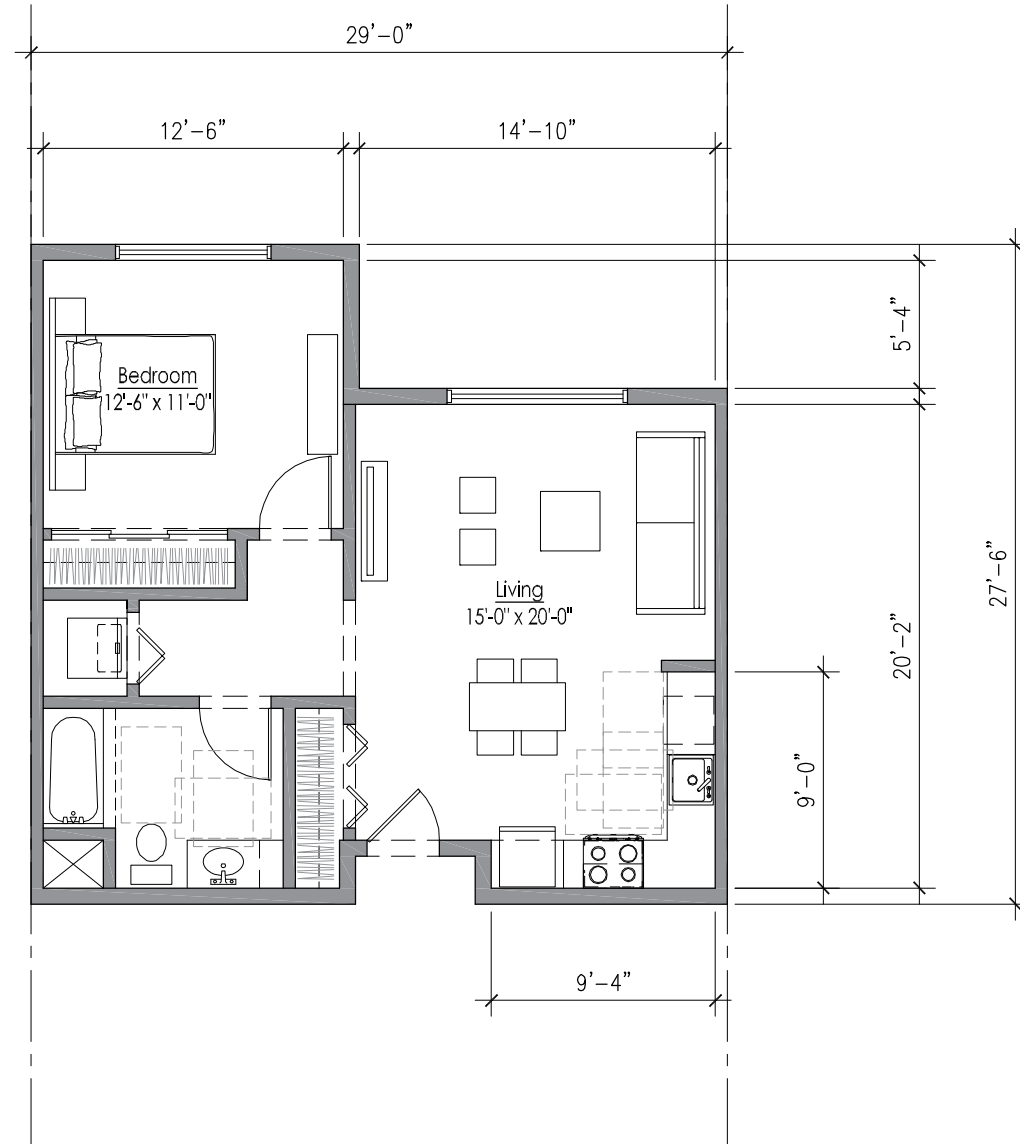


Proposed Landscape and Lighting Plan

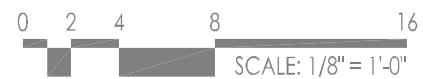
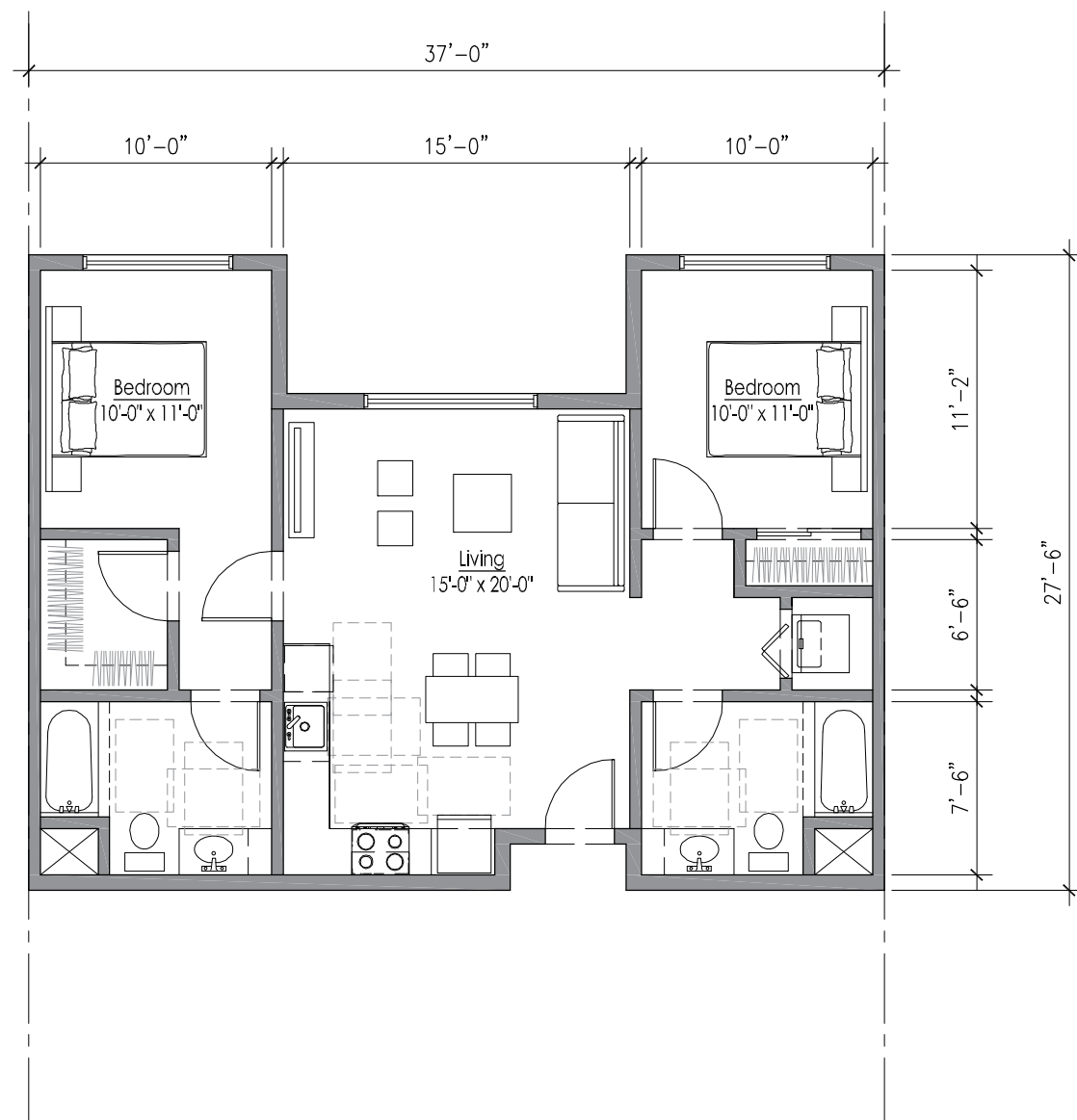


Unit A - Junior One Bed/One Bath





Unit B - One Bed/One Bath



Unit C - Two Bed/Two Bath



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google maps dated 8/29/2012

4 over 2
217 Units
Parcel F-2



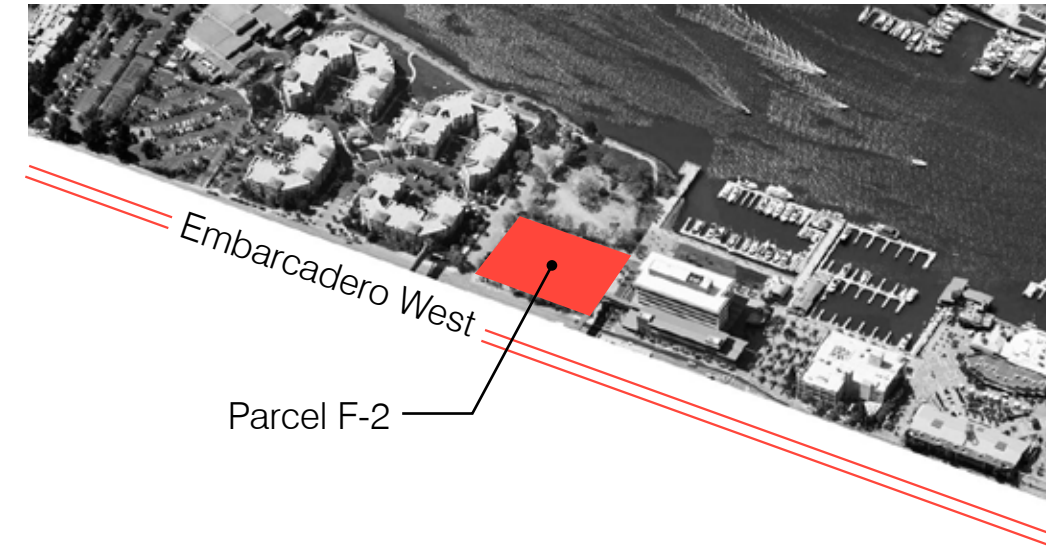
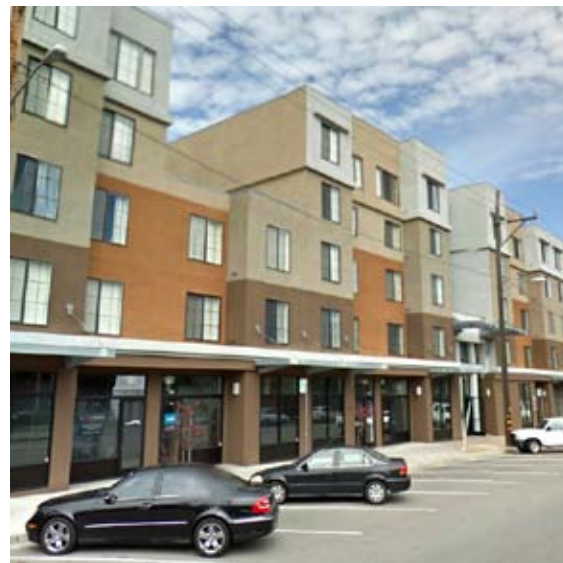
JACK LONDON SQUARE
OAKLAND, CALIFORNIA

PARCEL F-2

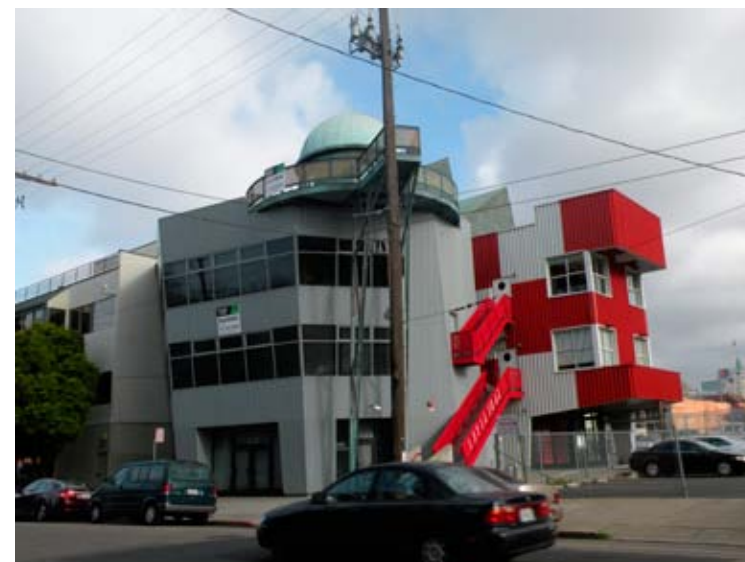
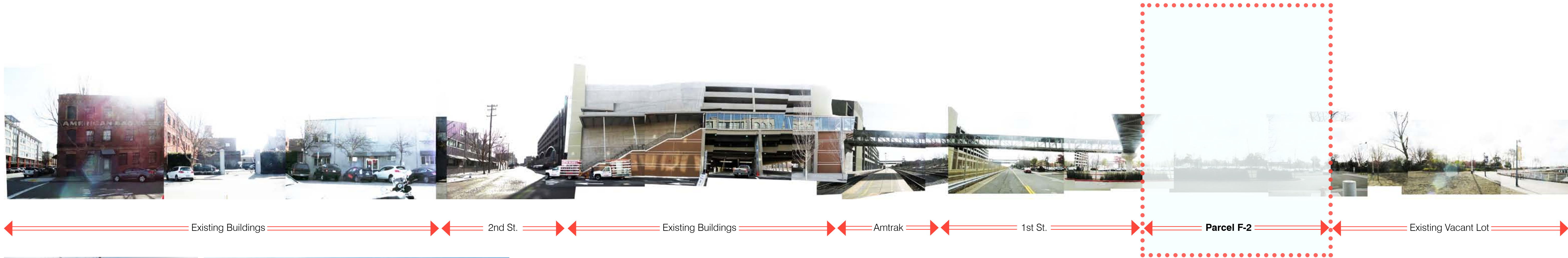
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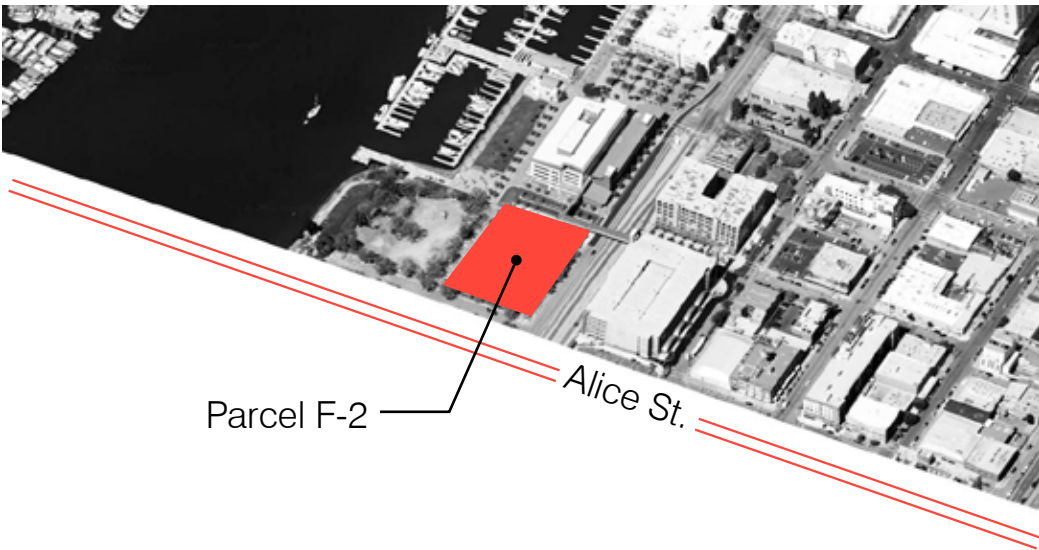
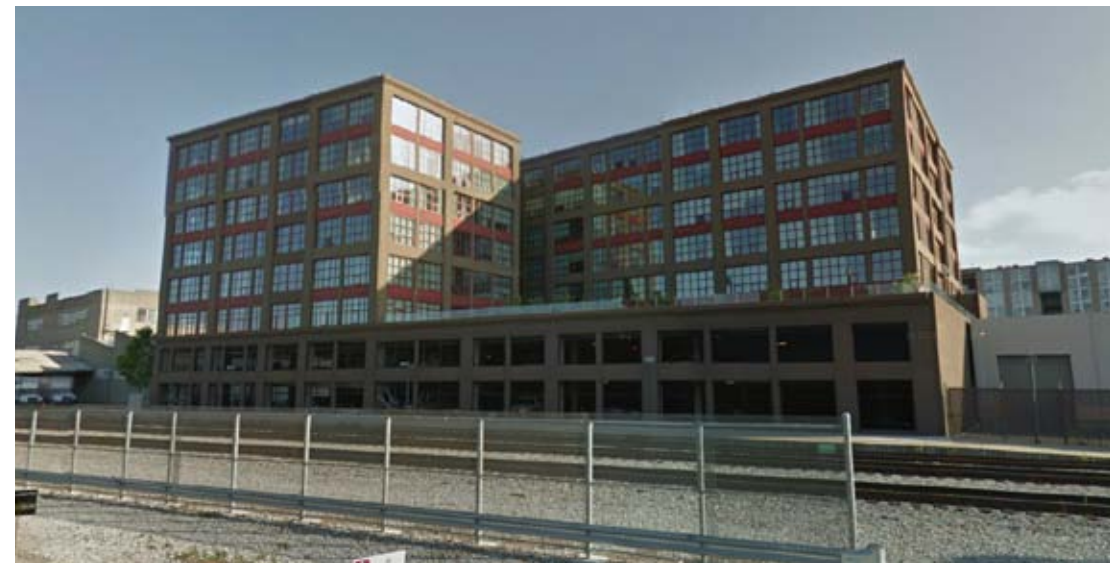
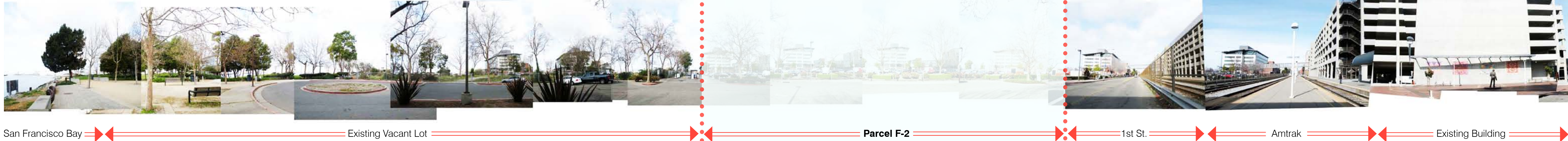
Existing Buildings Alice St. Parcel F-2 Harrison St. Existing Buildings Webster St.



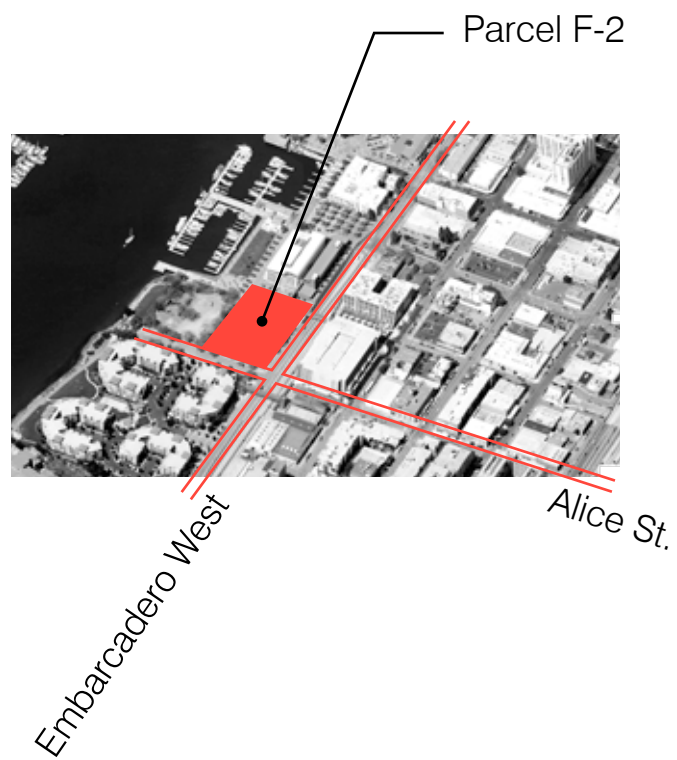
Embarcadero West Panoramic



Harrison Street Panoramic



Alice Street Panoramic



Parcel F-2 Contextual Photos

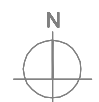
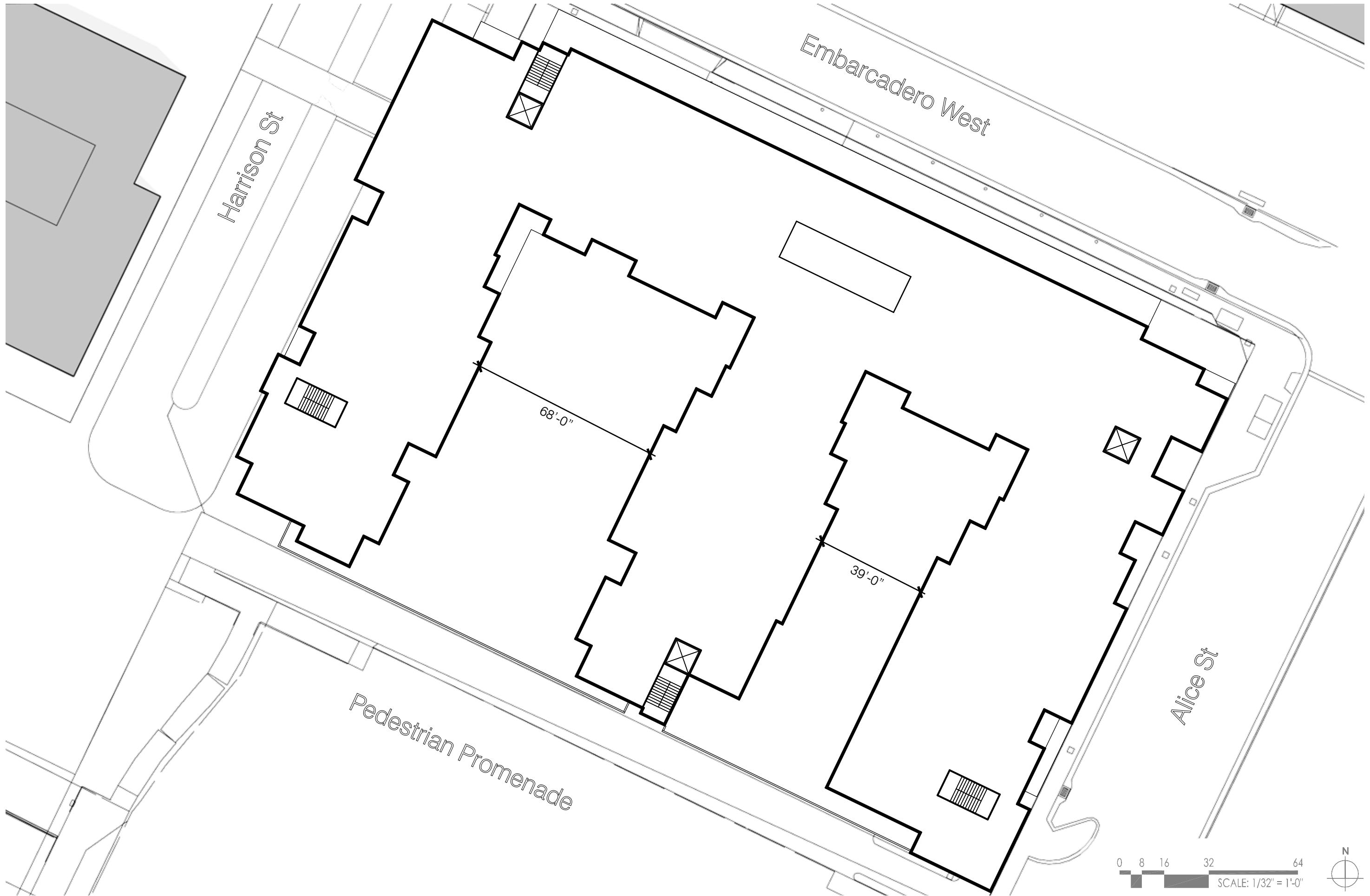


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PARCEL F-2

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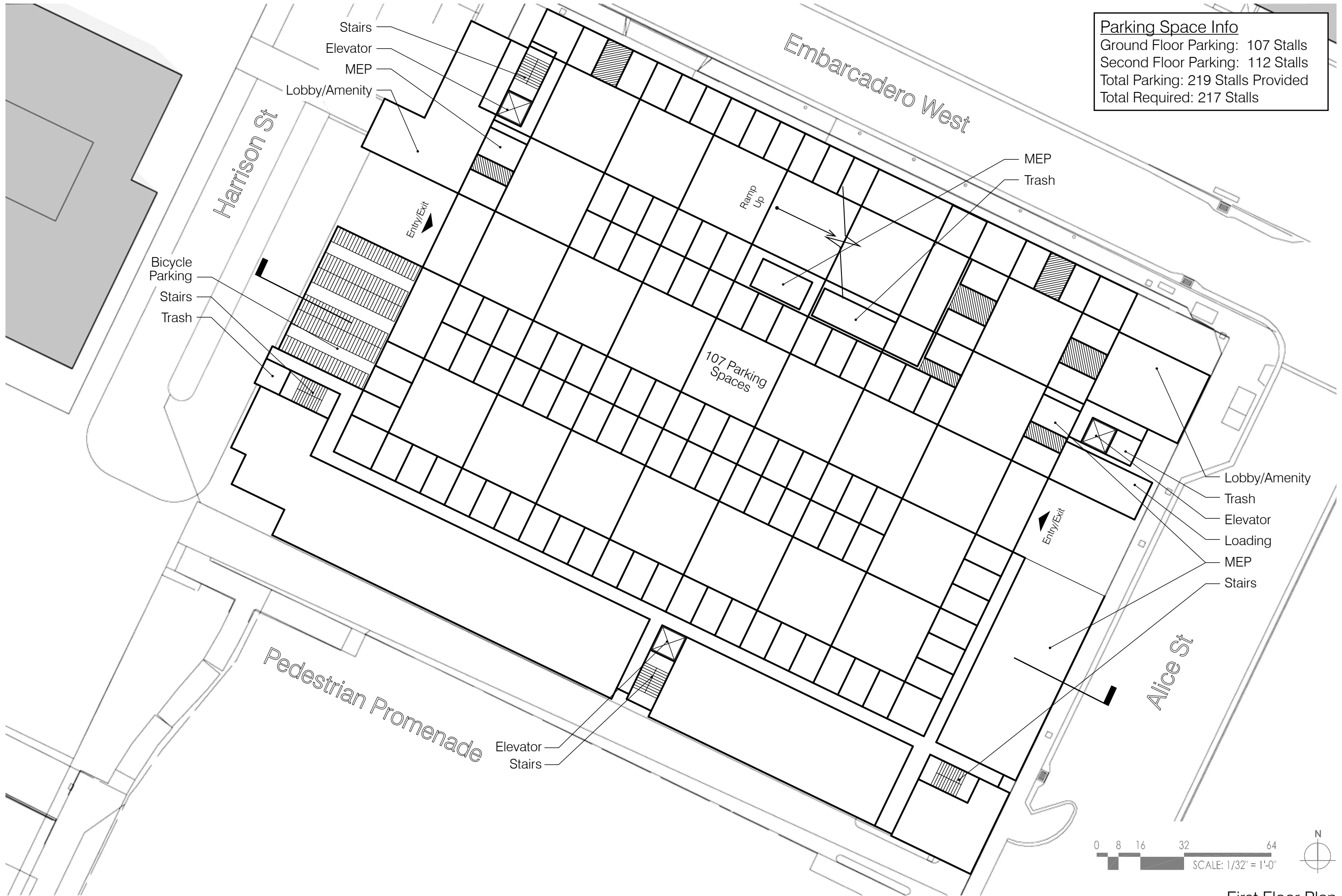
Site Plan



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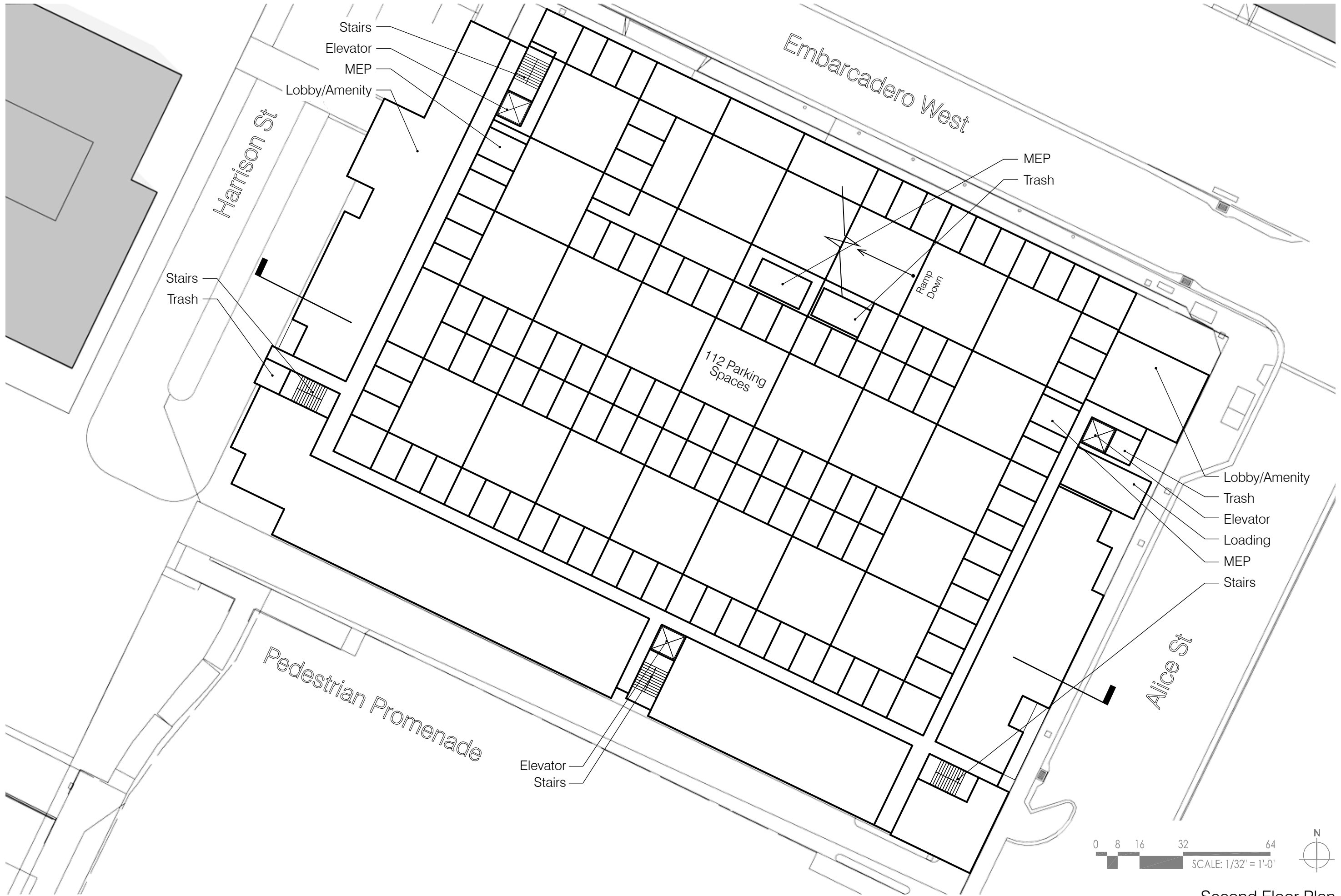
PARCEL F-2

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Parking Space Info
Ground Floor Parking: 107 Stalls
Second Floor Parking: 112 Stalls
Total Parking: 219 Stalls Provided
Total Required: 217 Stalls

First Floor Plan



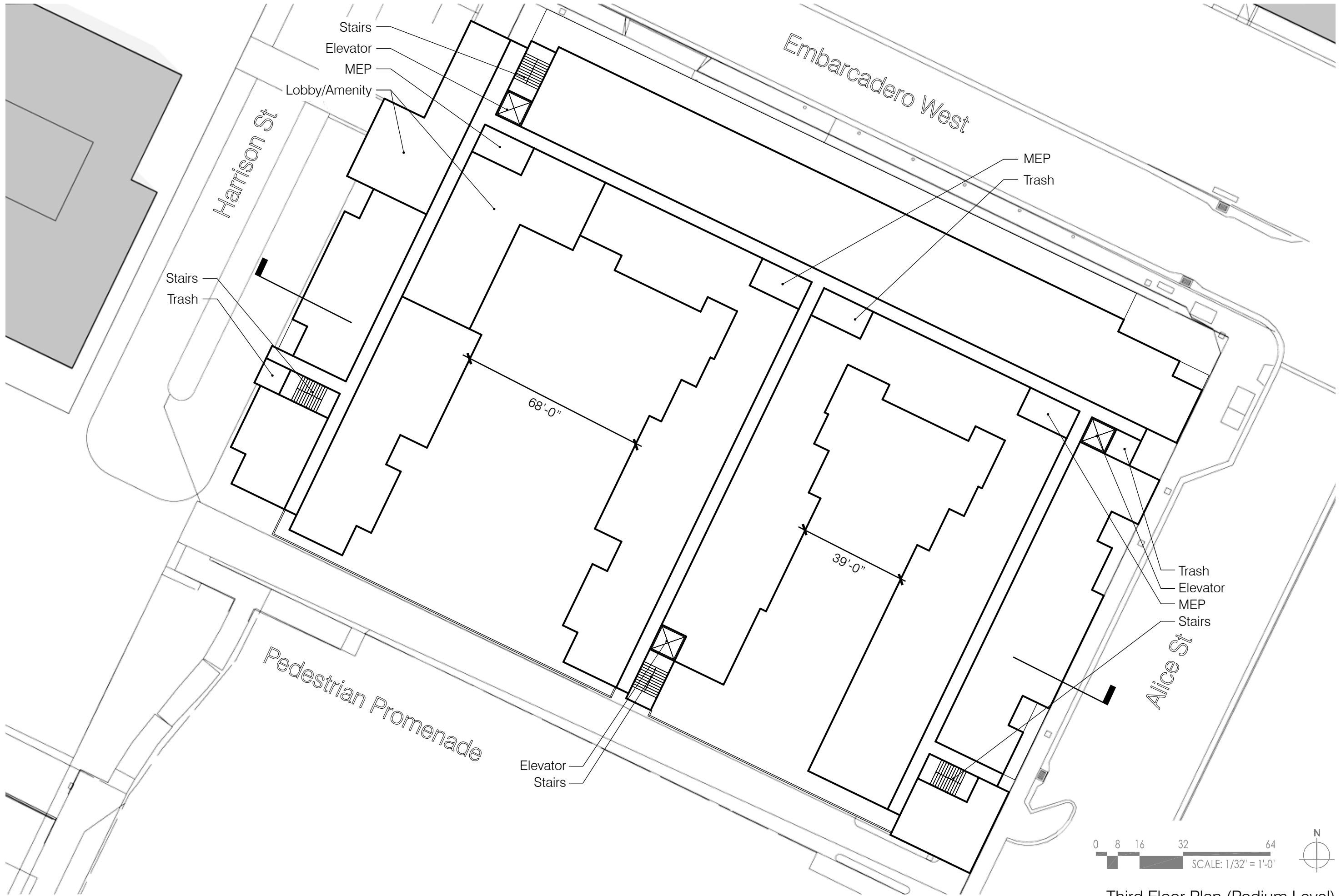
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PARCEL F-2

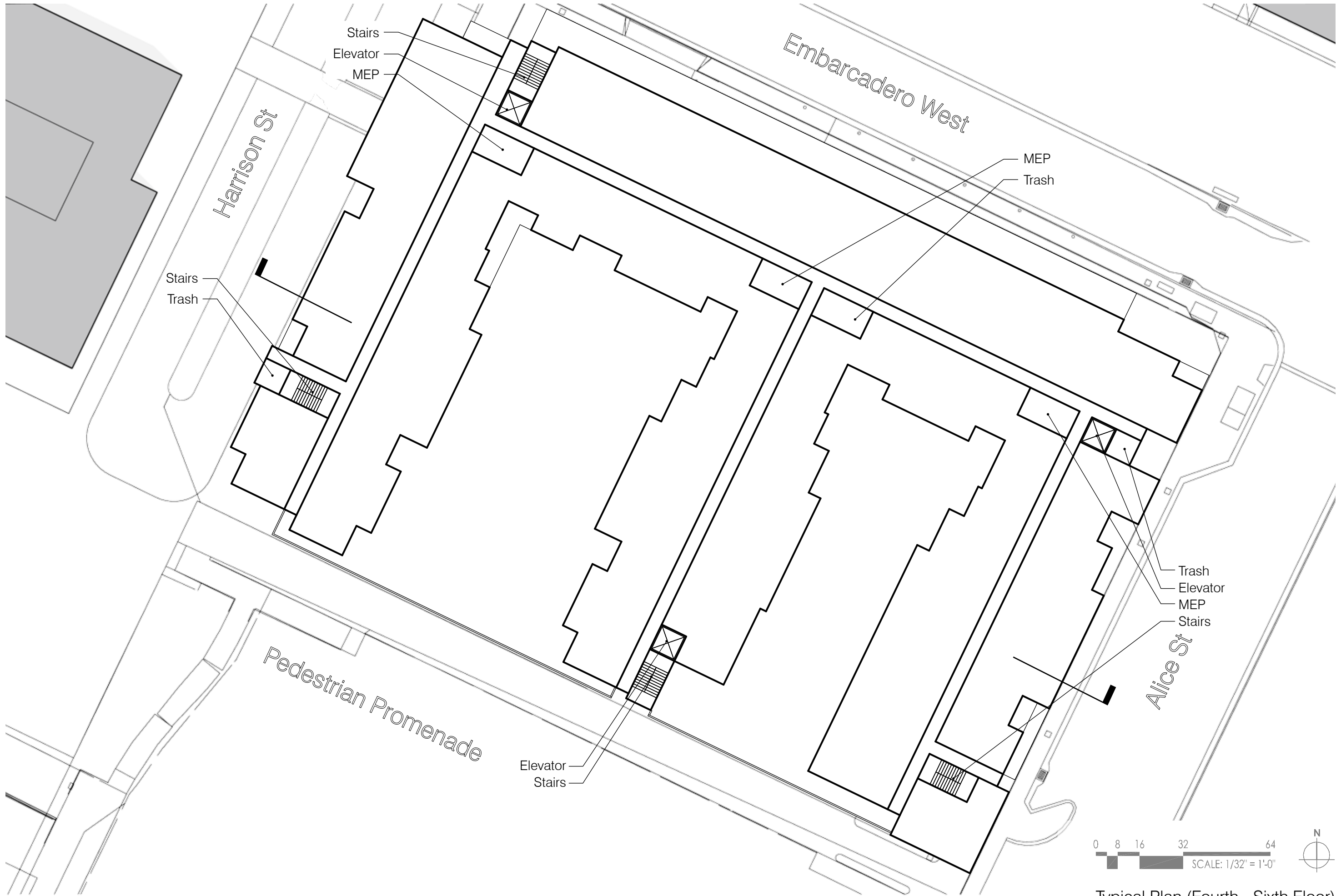
JACK LONDON SQUARE
OAKLAND, CALIFORNIA



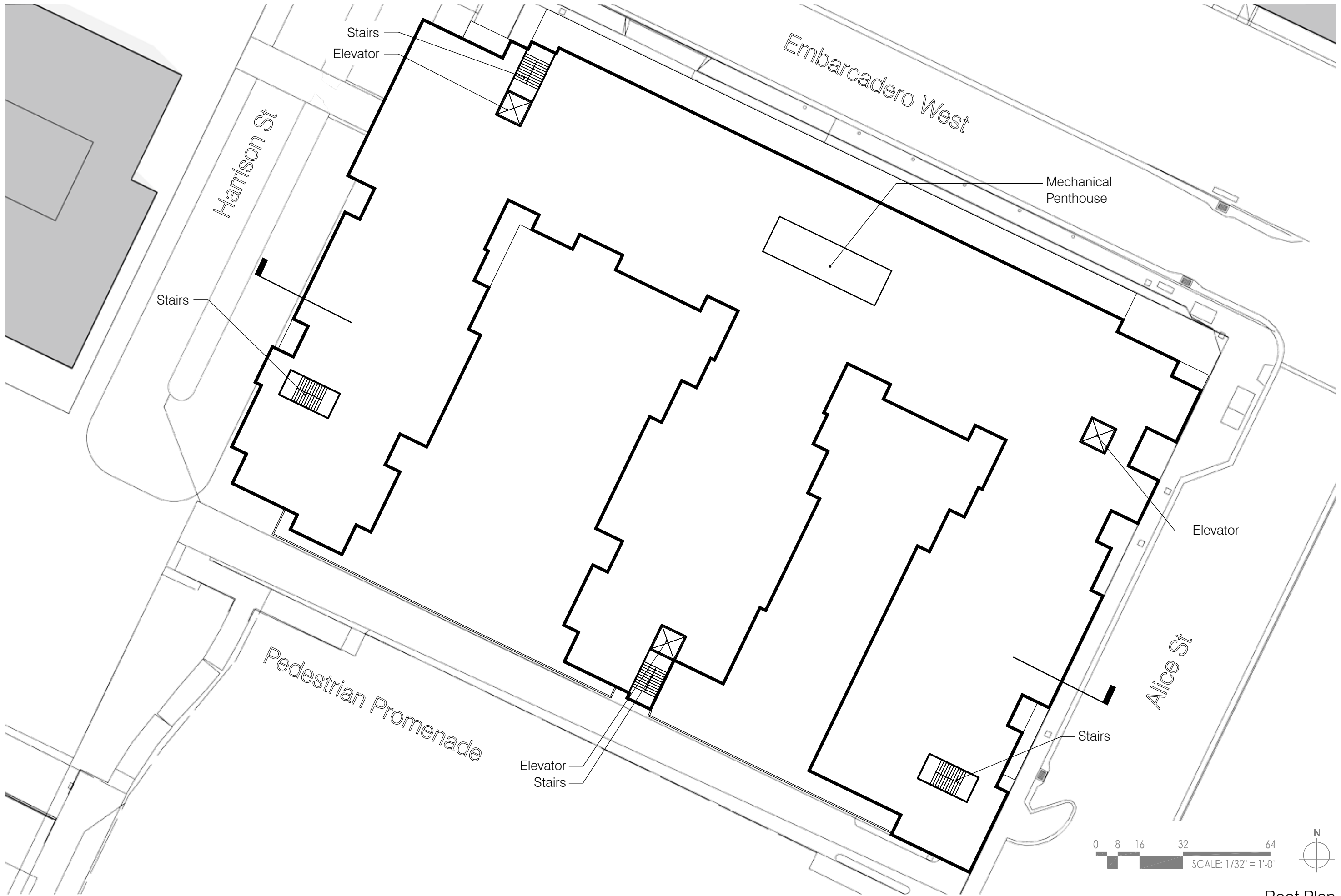
Second Floor Plan



0 8 16 32 64
SCALE: 1/32" = 1'-0"
Third Floor Plan (Podium Level)



Typical Plan (Fourth - Sixth Floor)



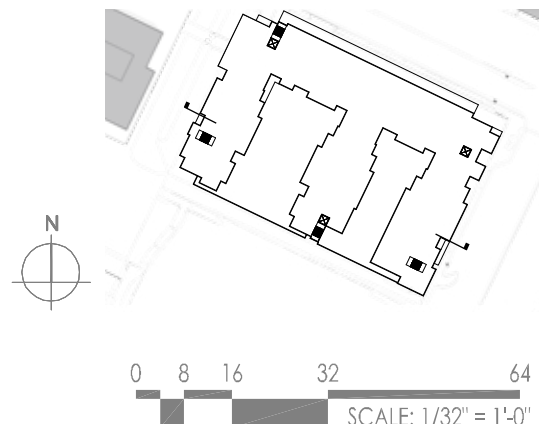
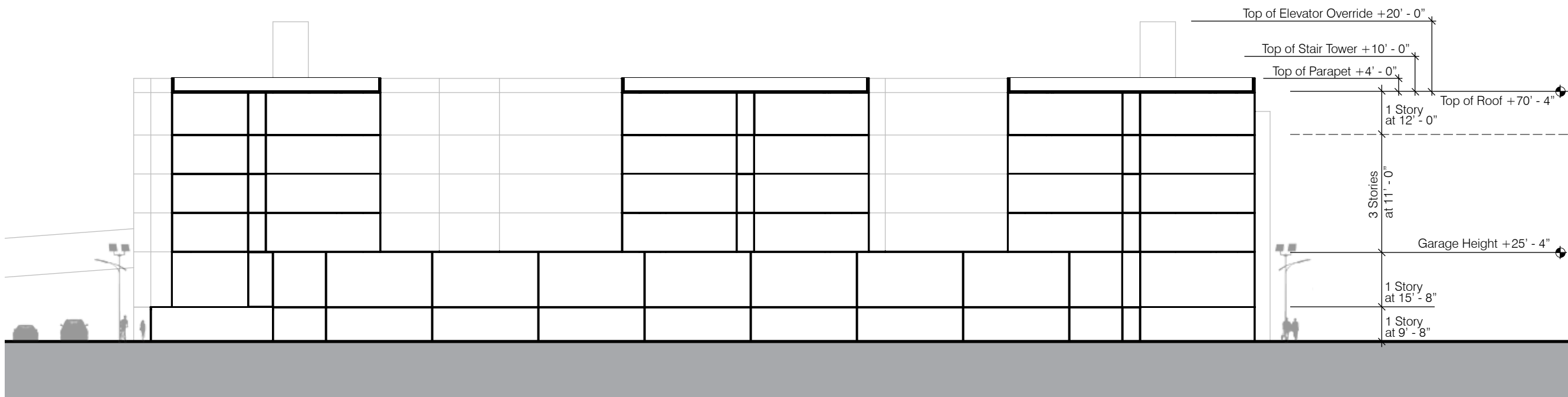
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PARCEL F-2

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Roof Plan

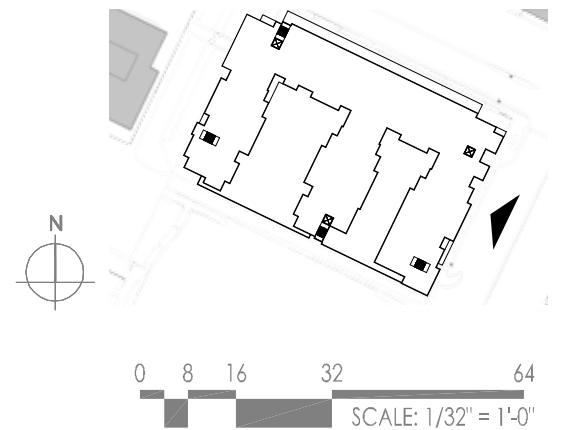
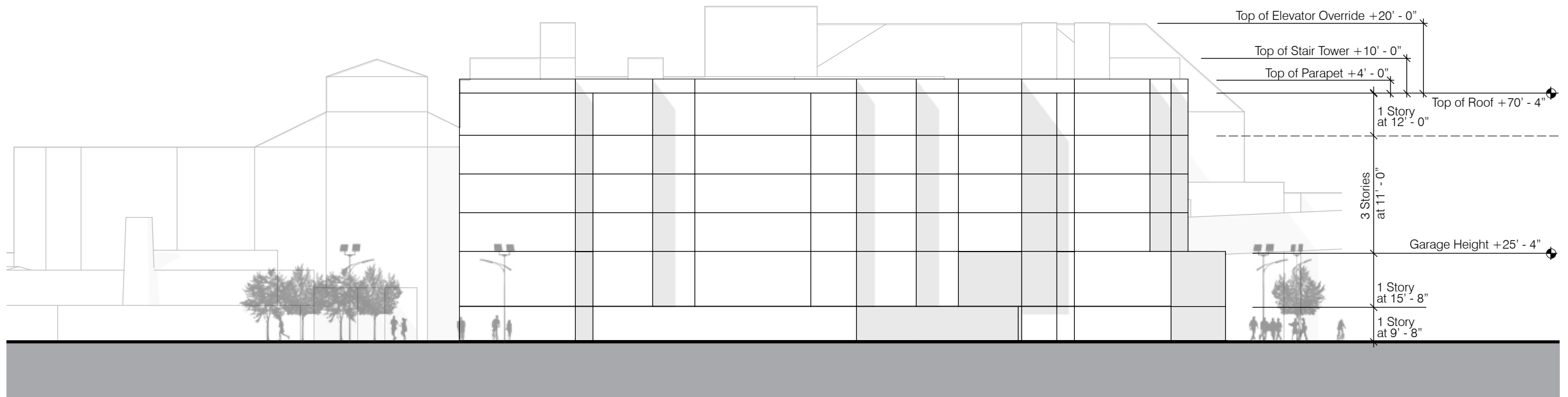


Section

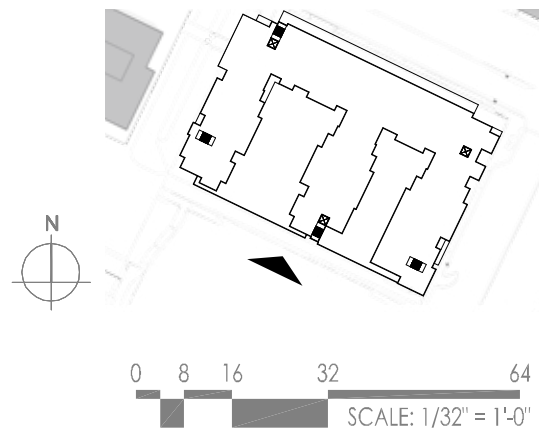
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OAKLAND, CALIFORNIA
PARCEL F-2

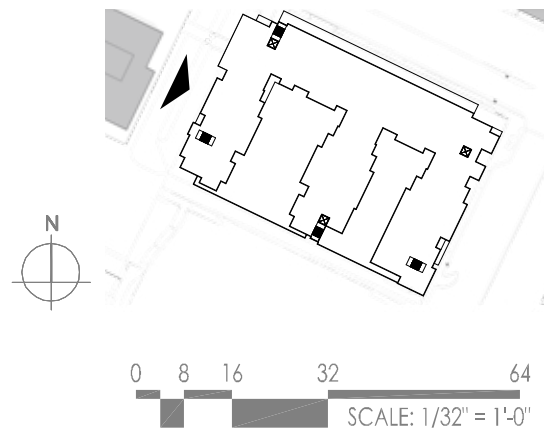
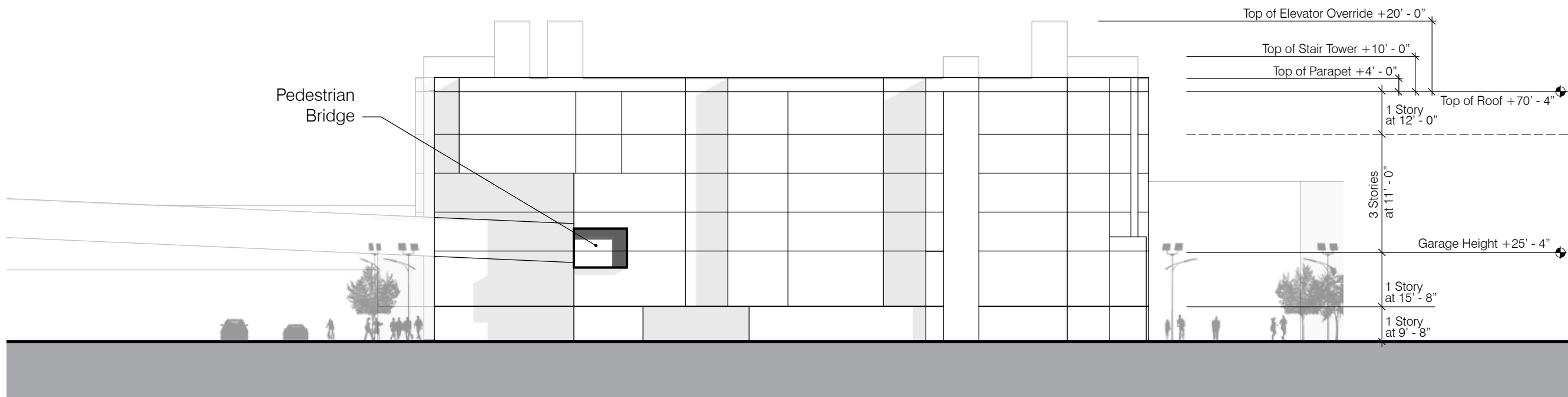




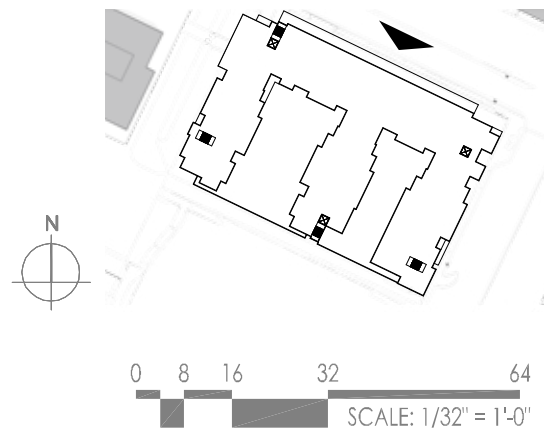
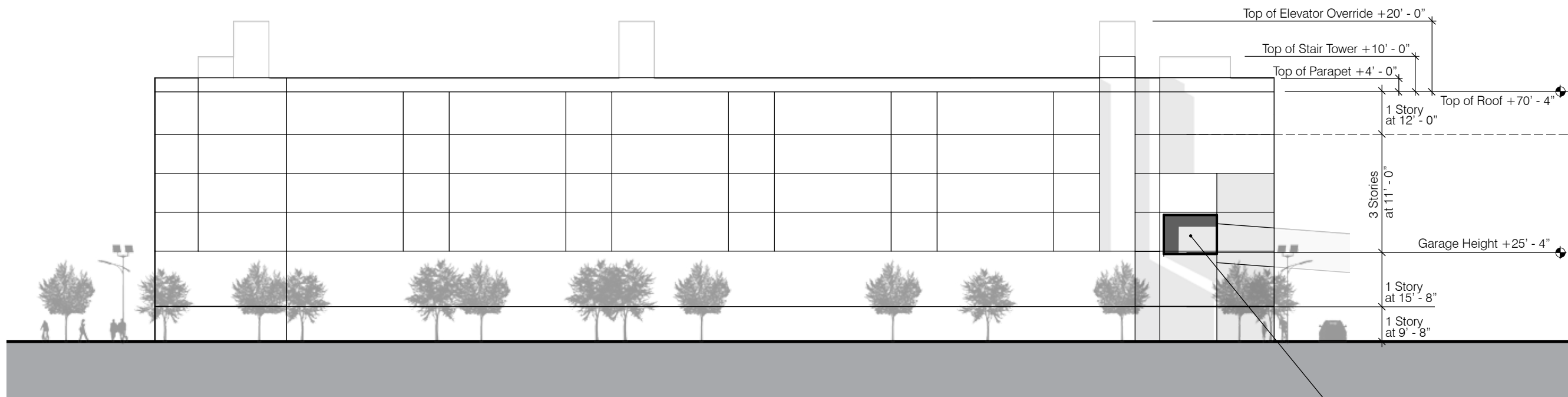
East Elevation



South Elevation

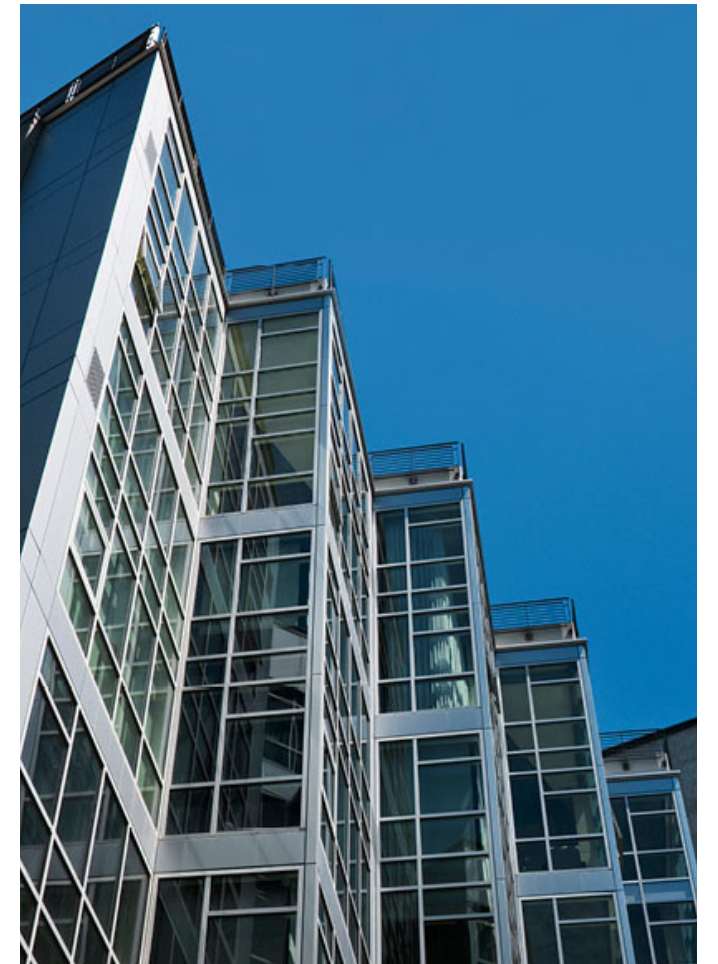
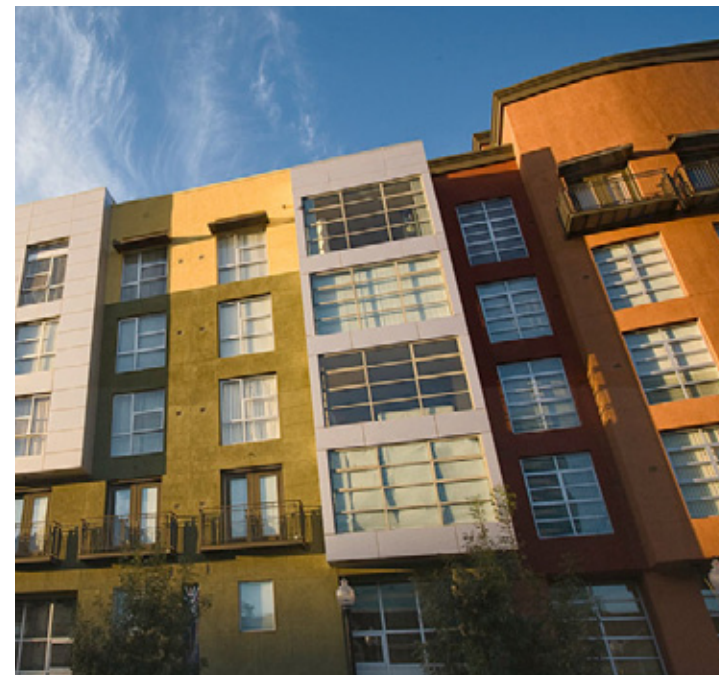
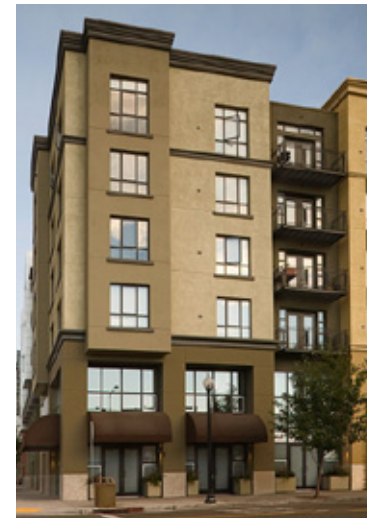


West Elevation



North Elevation

Colors, Finishes and Materials to be
selected during FDP Phase



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PARCEL F-2

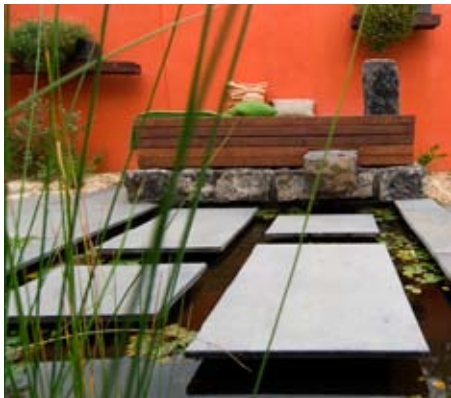
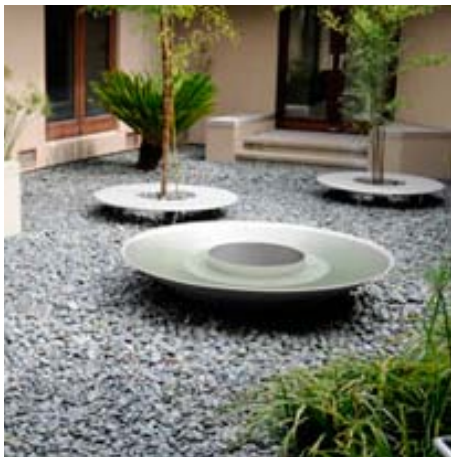
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OAKLAND, CALIFORNIA



Exterior Design Study



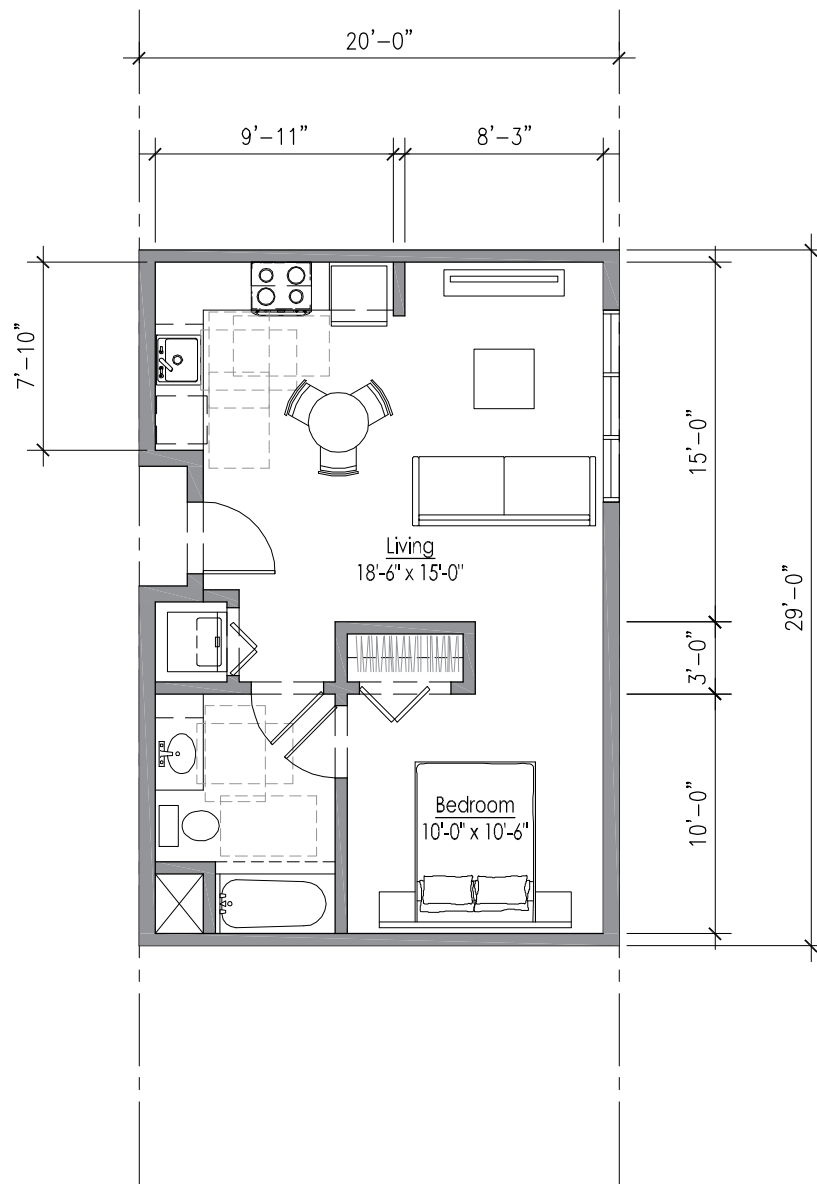
Existing Landscape and Lighting



Amenity, Landscape and Lighting Study







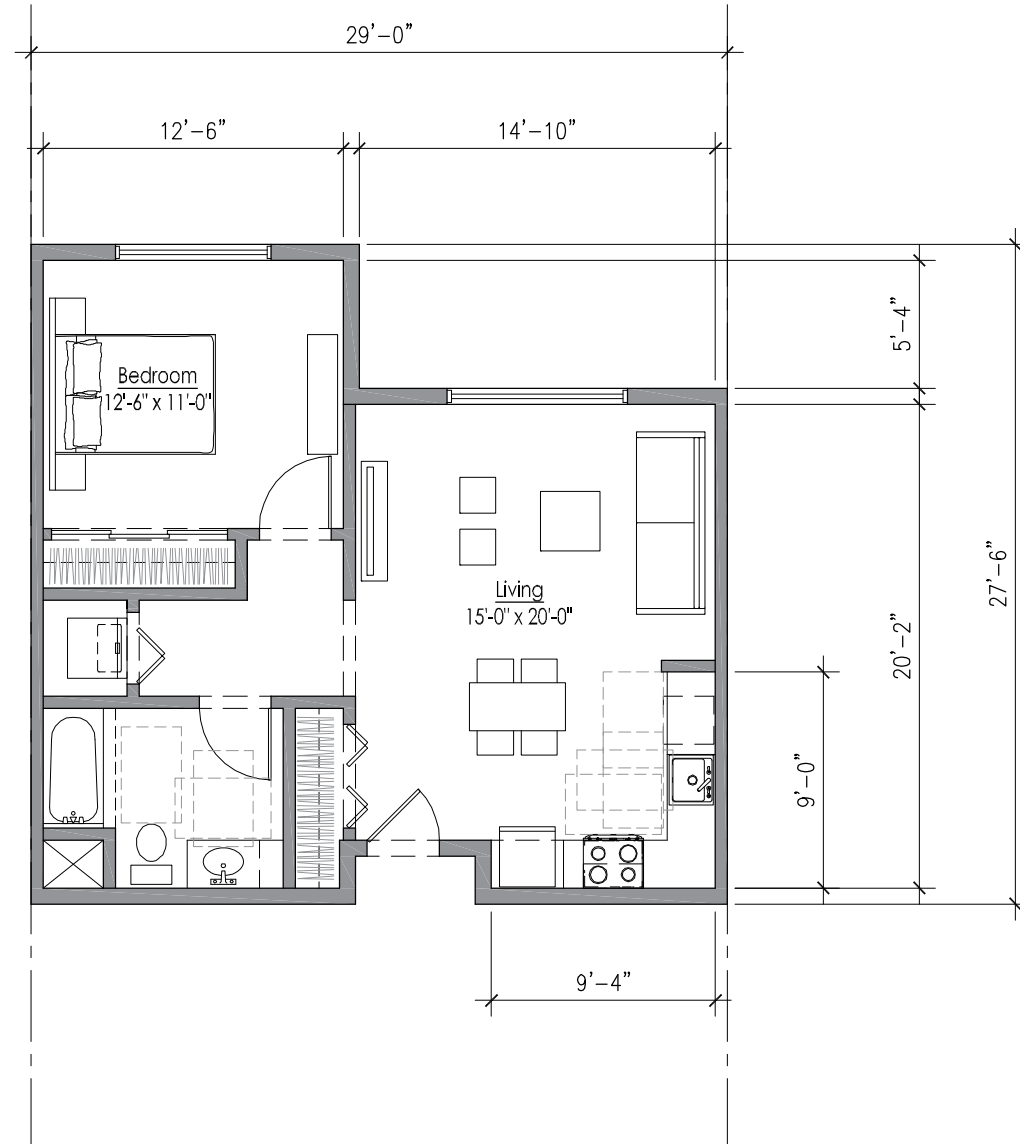
Unit A - Junior One Bed/One Bath



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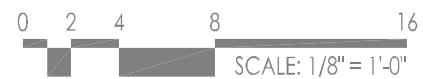
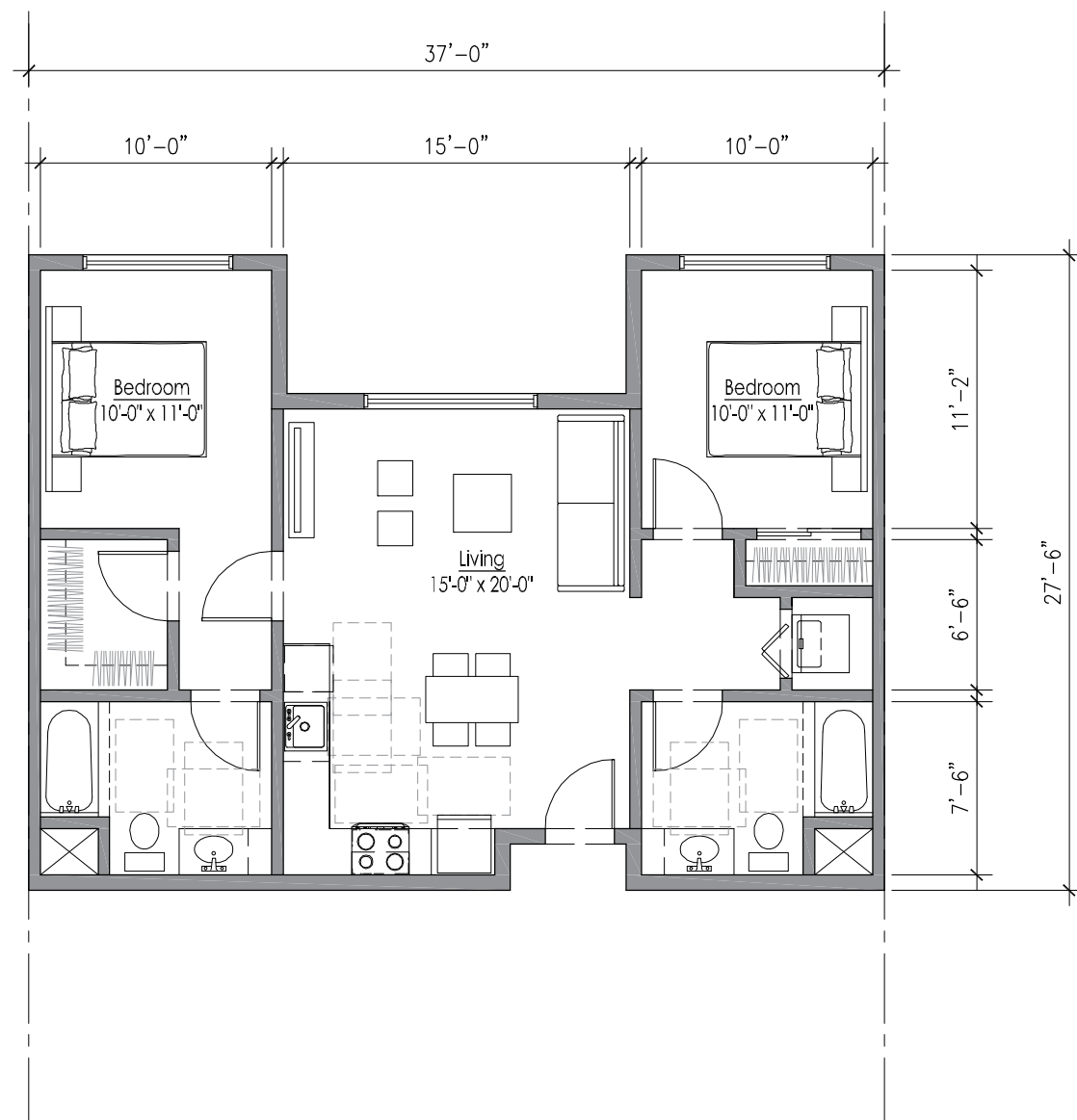
PARCEL F-2

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Unit B - One Bed/One Bath





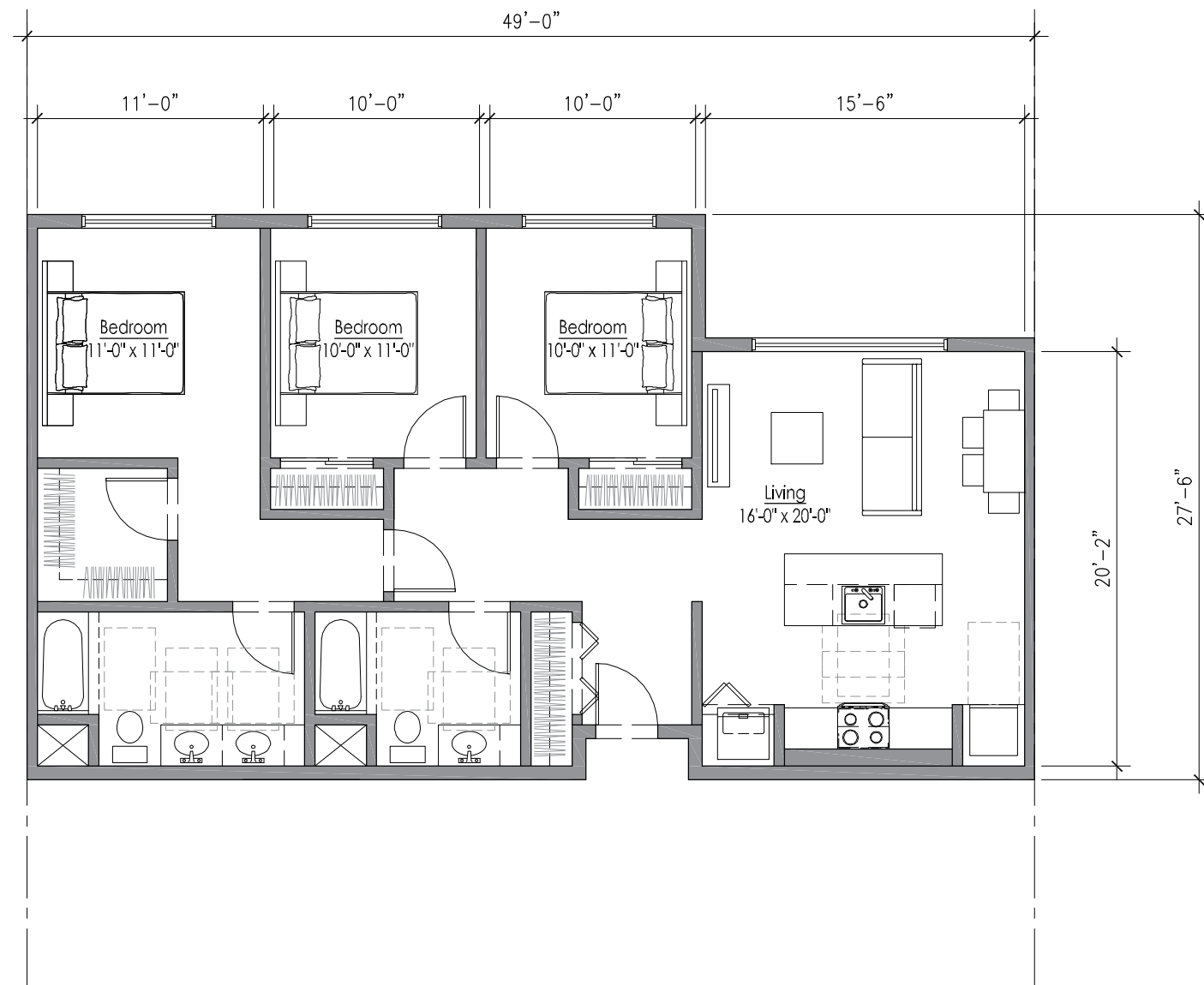
Unit C - Two Bed/Two Bath



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PARCEL F-2

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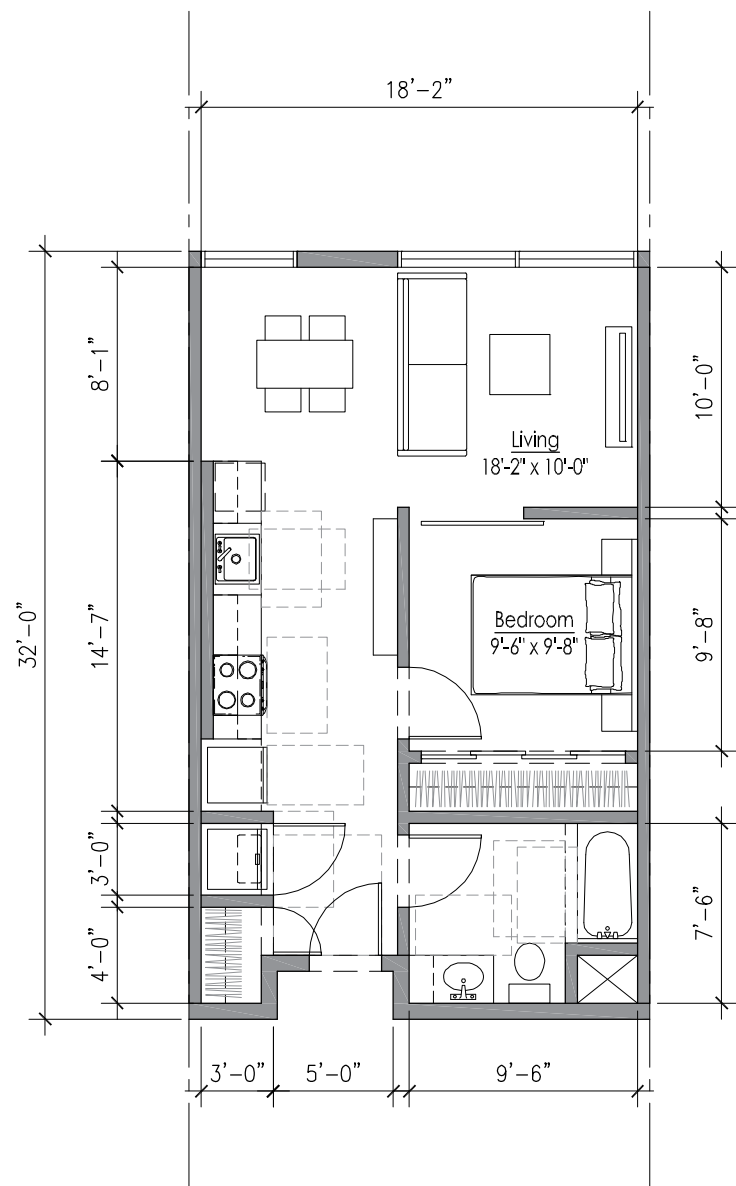
Unit D - Three Bed/Two Bath



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PARCEL F-2

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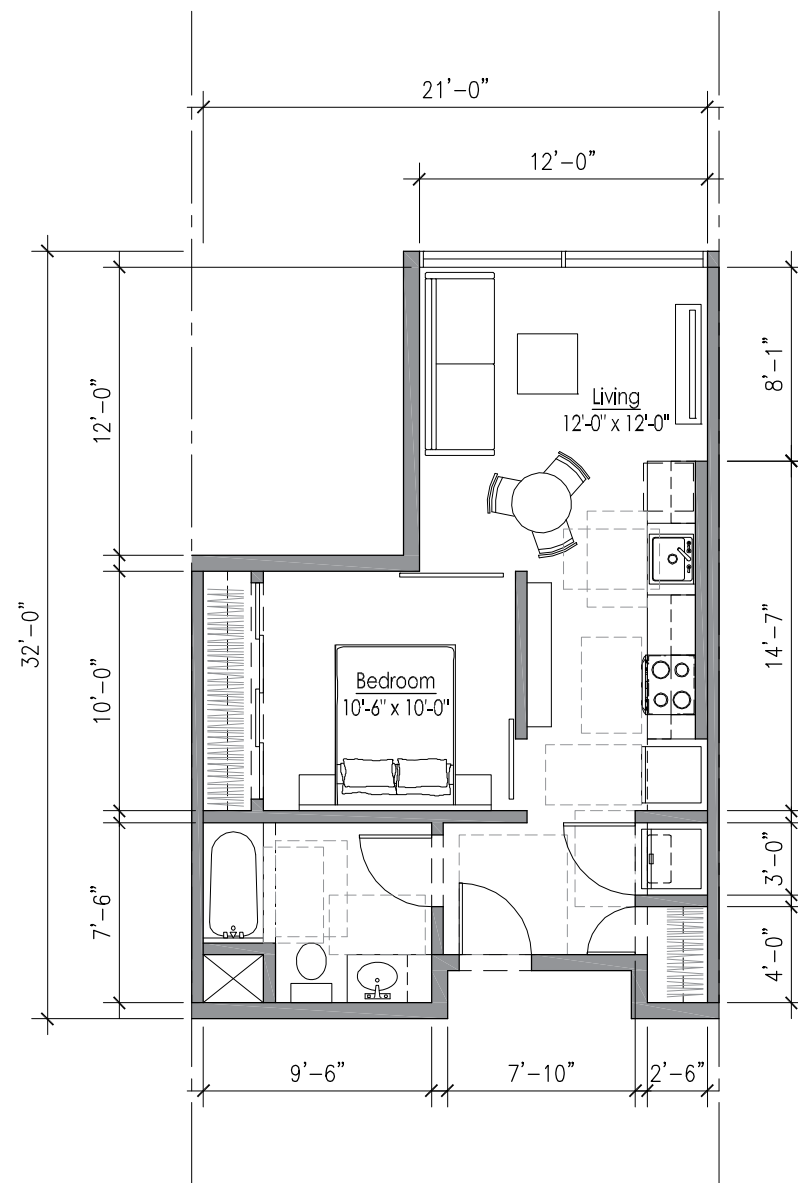
Unit E - Junior One Bed/One Bath



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PARCEL F-2

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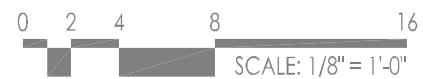
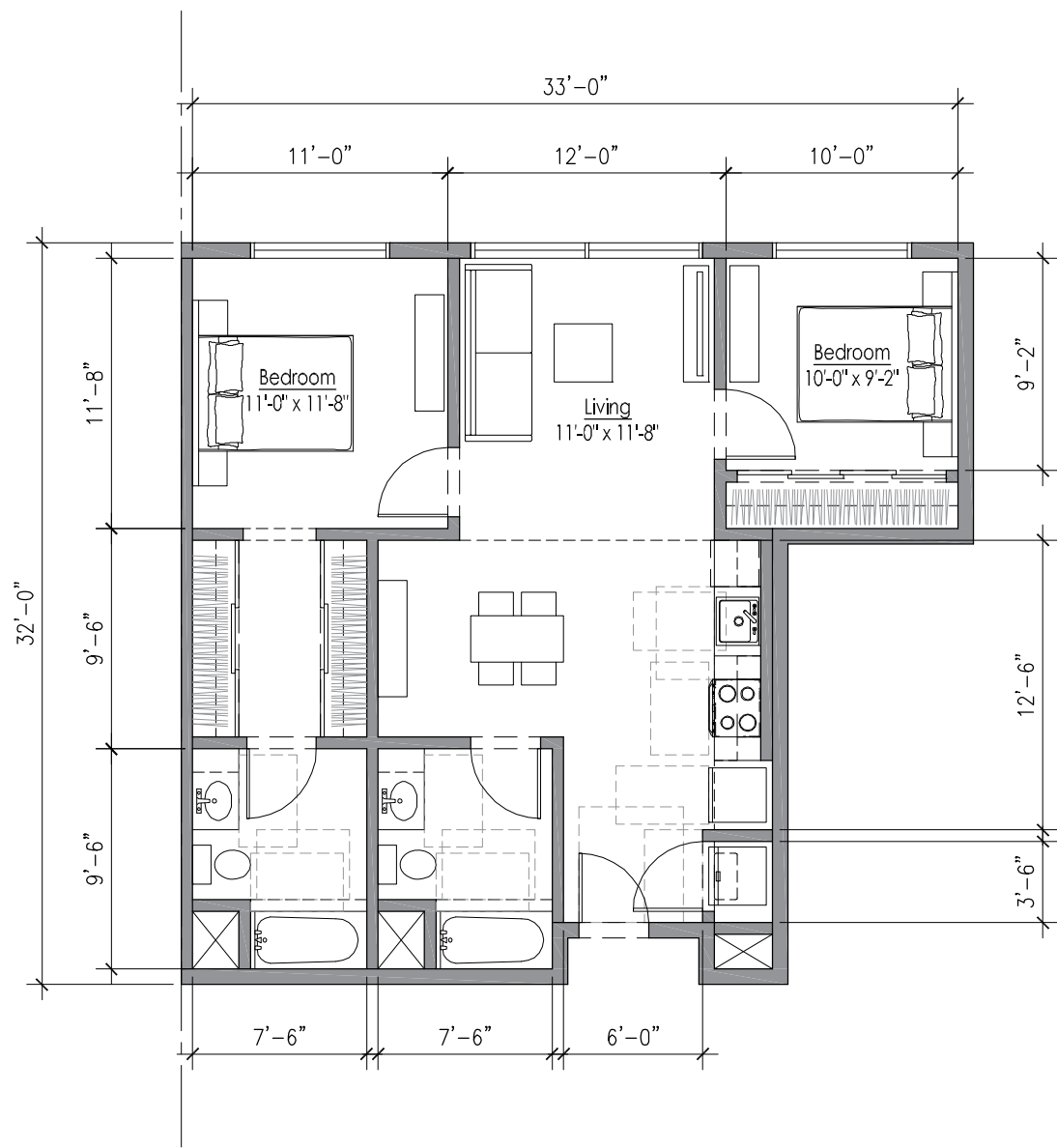
Unit F - Junior One Bed/One Bath



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PARCEL F-2

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Unit G - Two Bed/Two Bath



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google maps dated 8/29/2012

6 over 2
282 Units
Parcel F-2



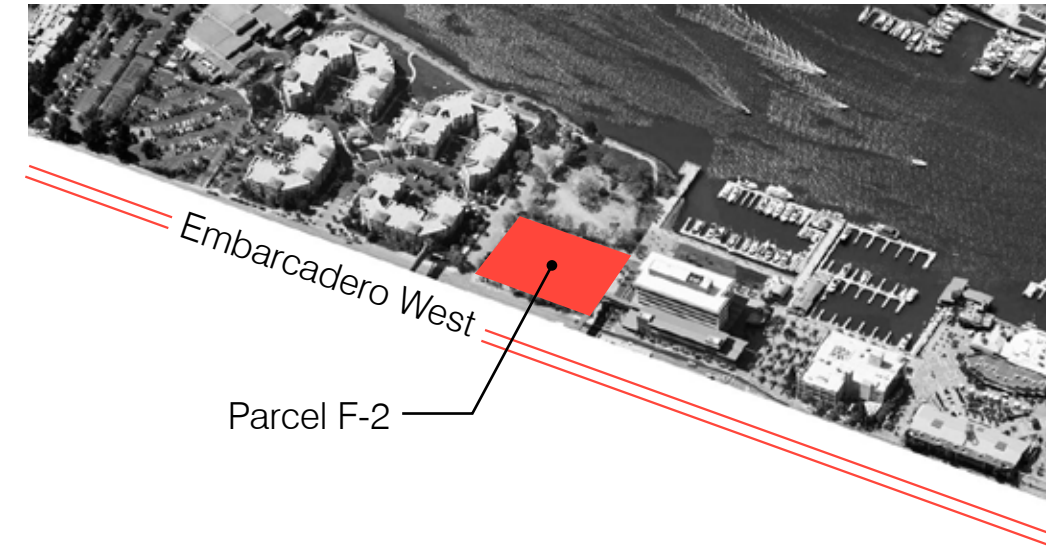
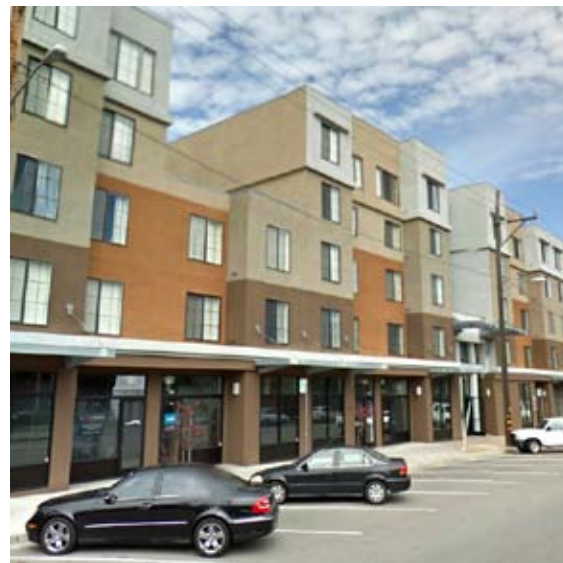
JACK LONDON SQUARE
OAKLAND, CALIFORNIA

PARCEL F-2

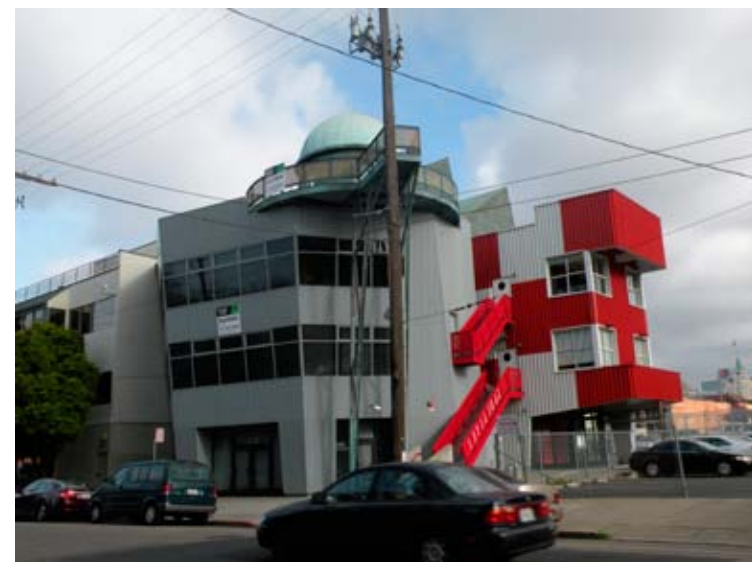
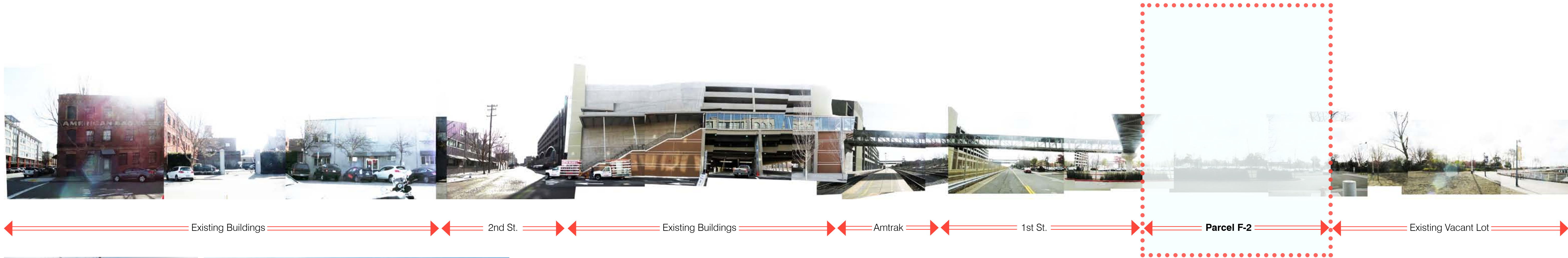
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PROJECT NO: 47841
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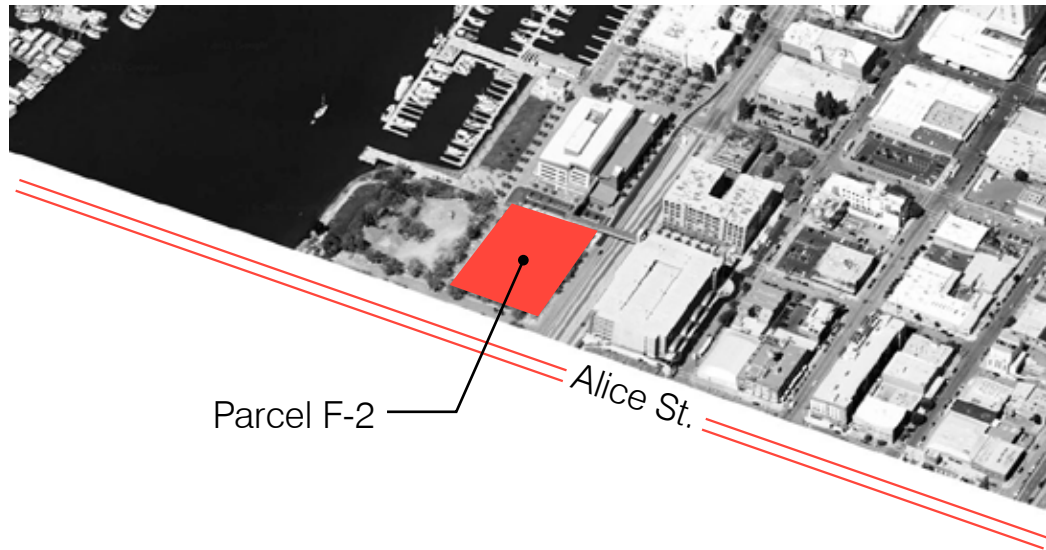
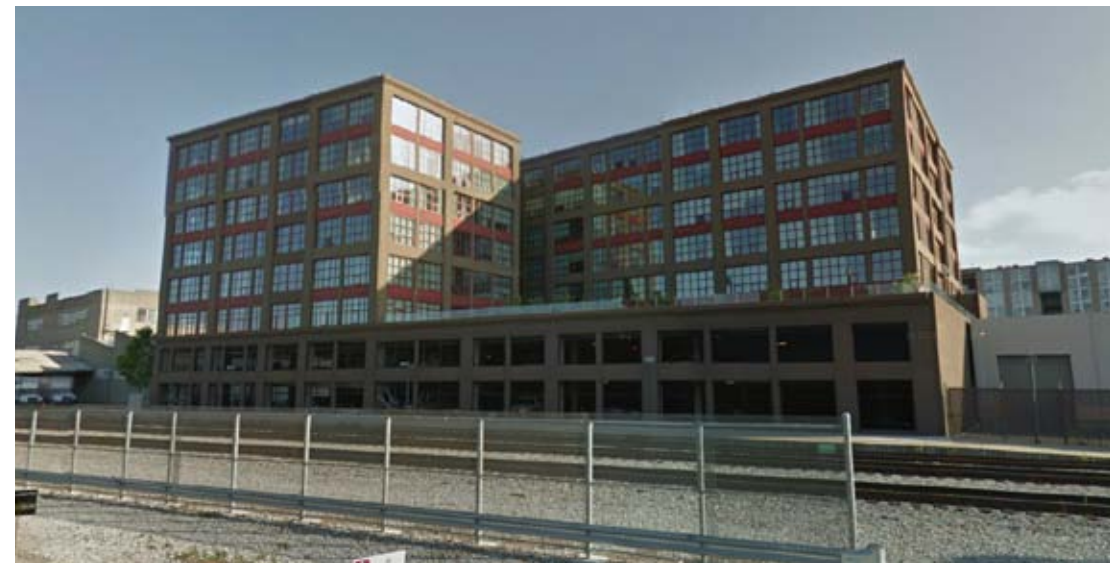
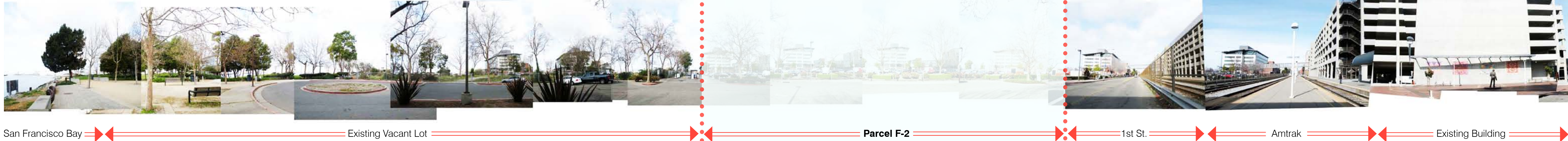
Existing Buildings Alice St. **Parcel F-2** Harrison St. Existing Buildings Webster St.



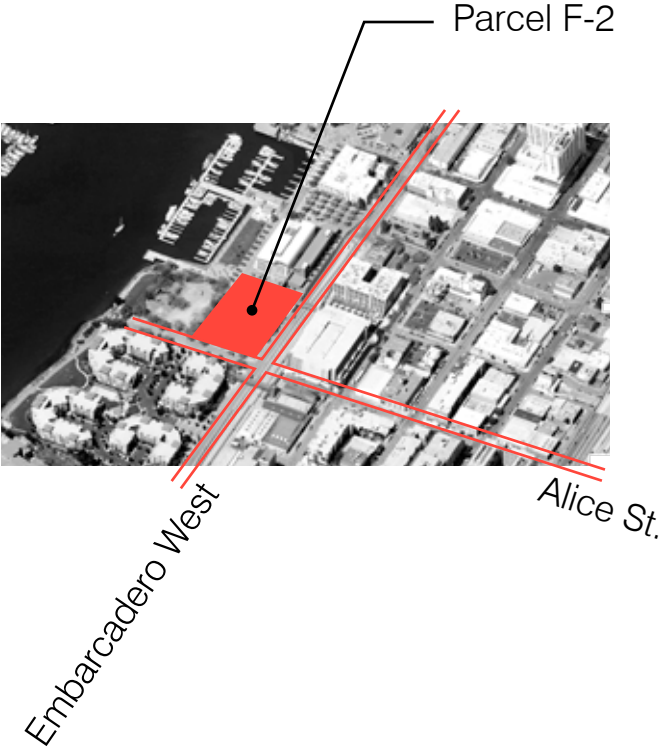
Embarcadero West Panoramic



Harrison Street Panoramic

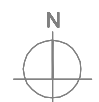
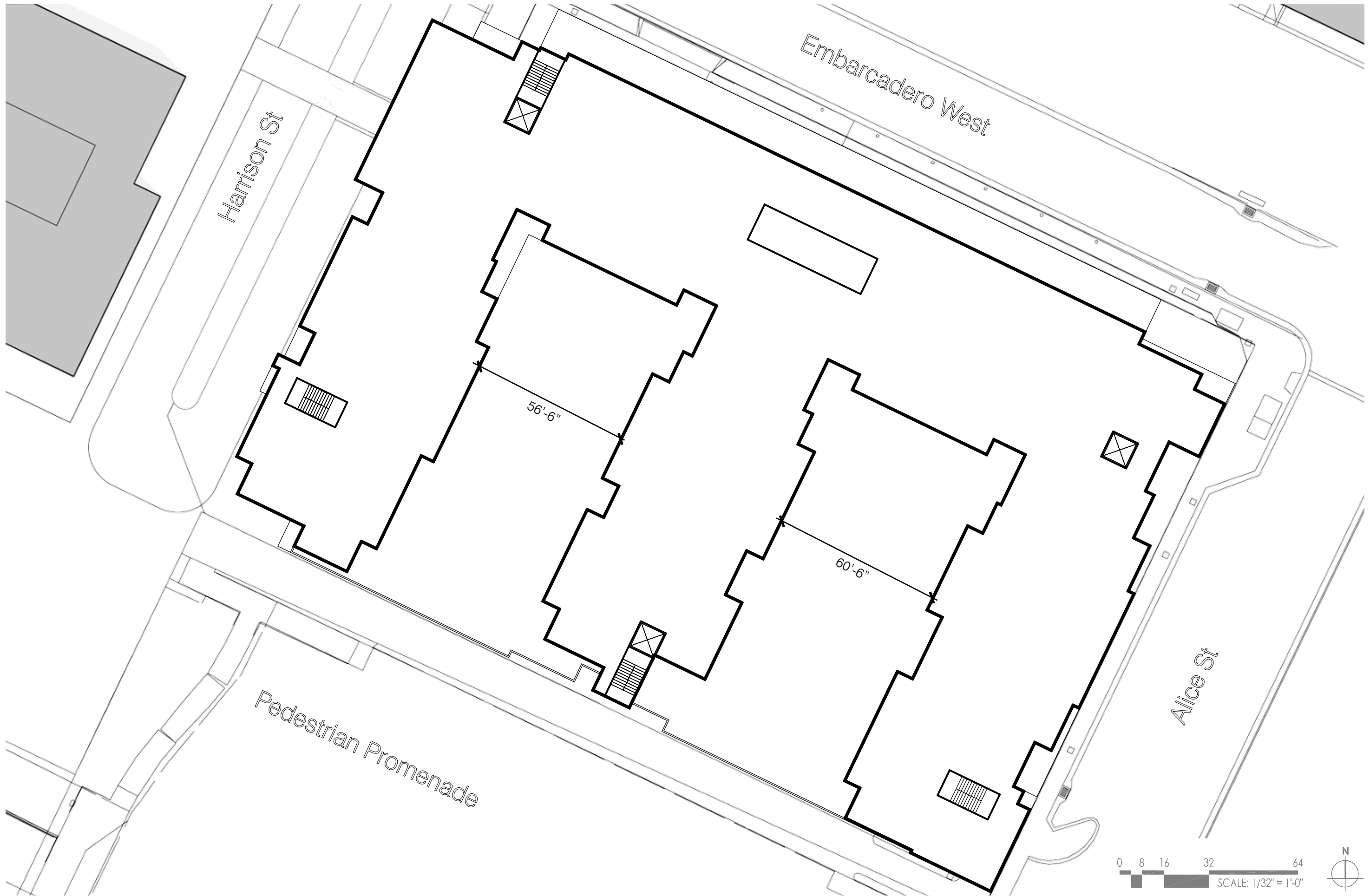


Alice Street Panoramic



Parcel F-2 Contextual Photos





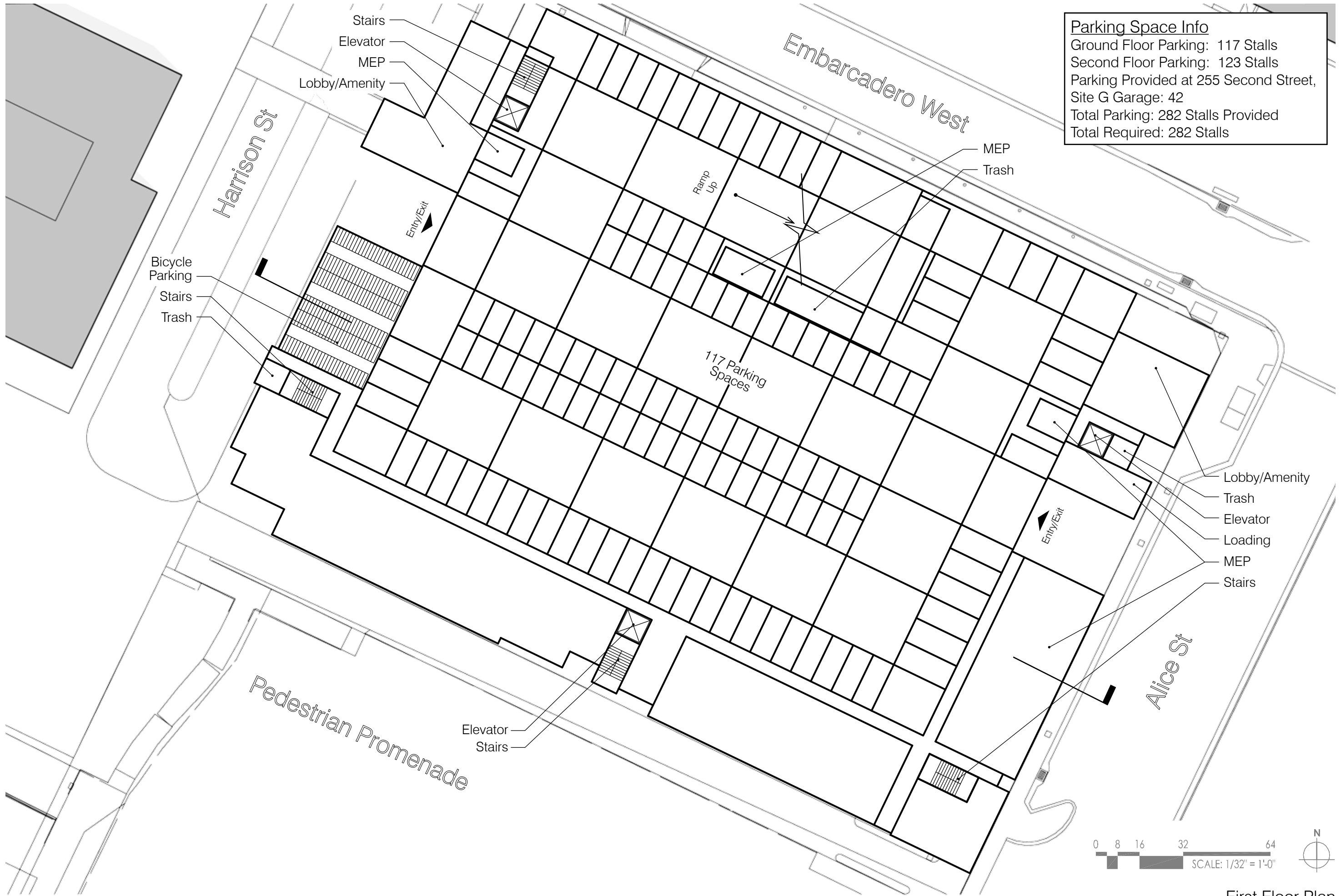
Site Plan



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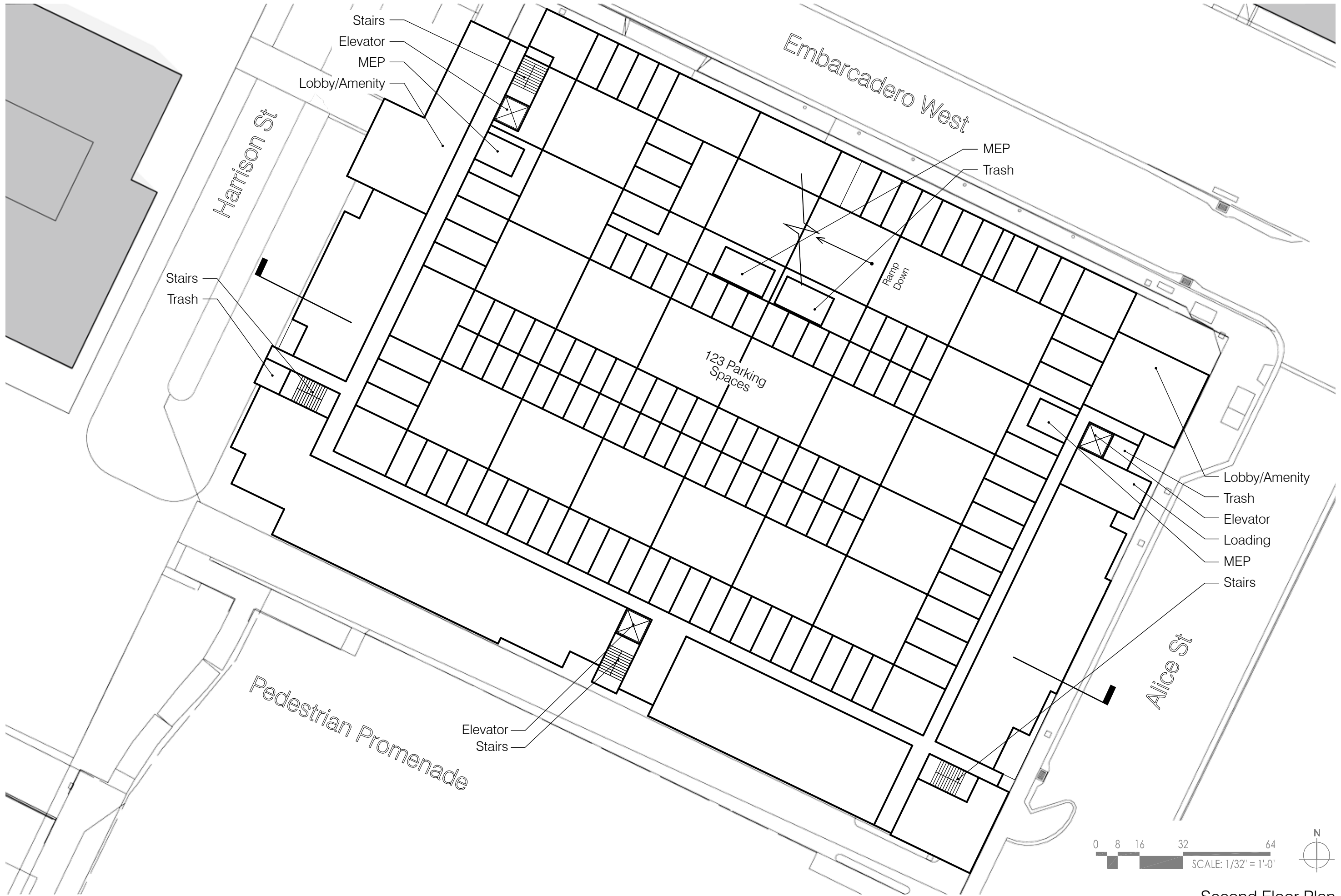
PARCEL F-2

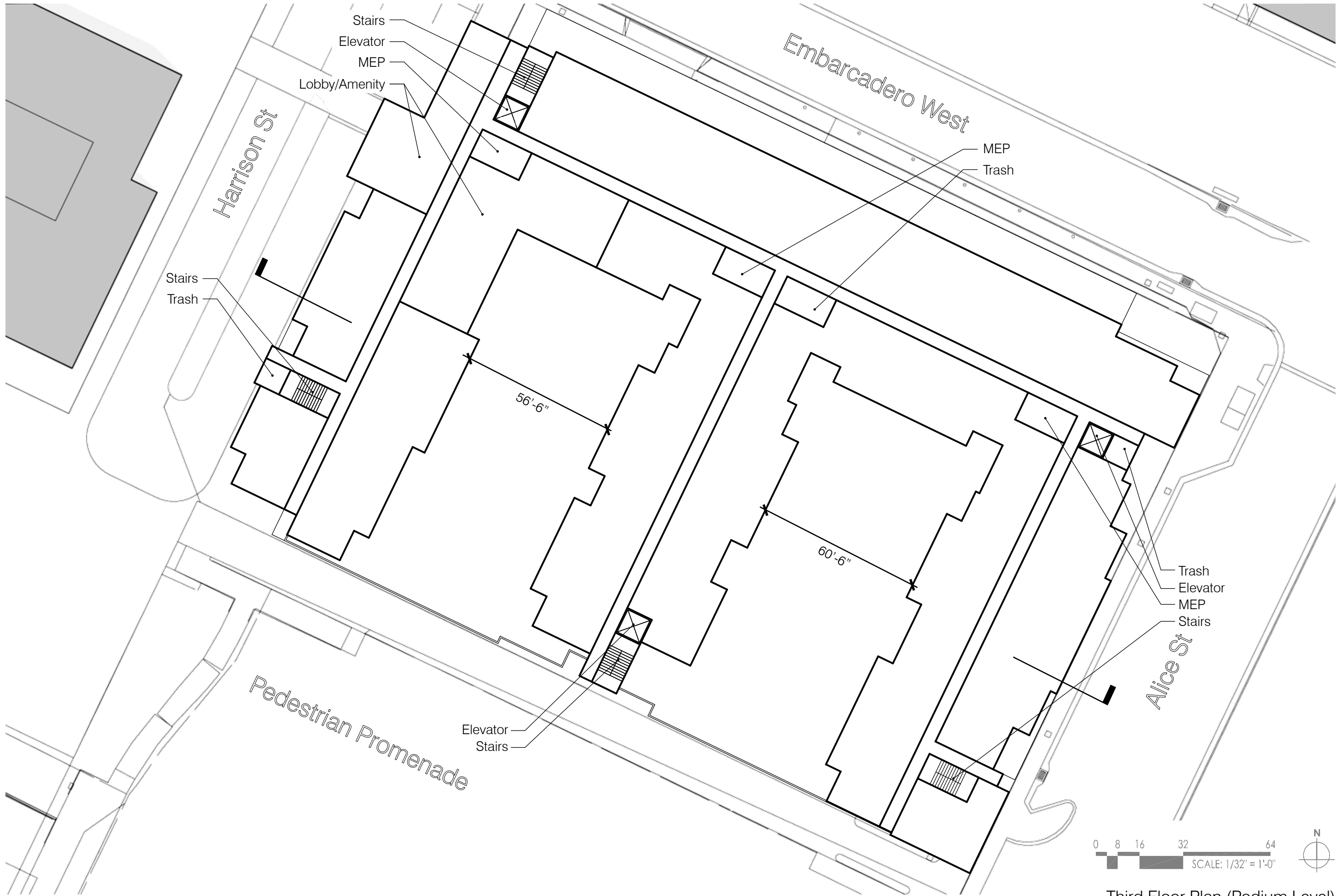
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PROJECT NO: 47841
2470 MARINER SQUARE LOOP
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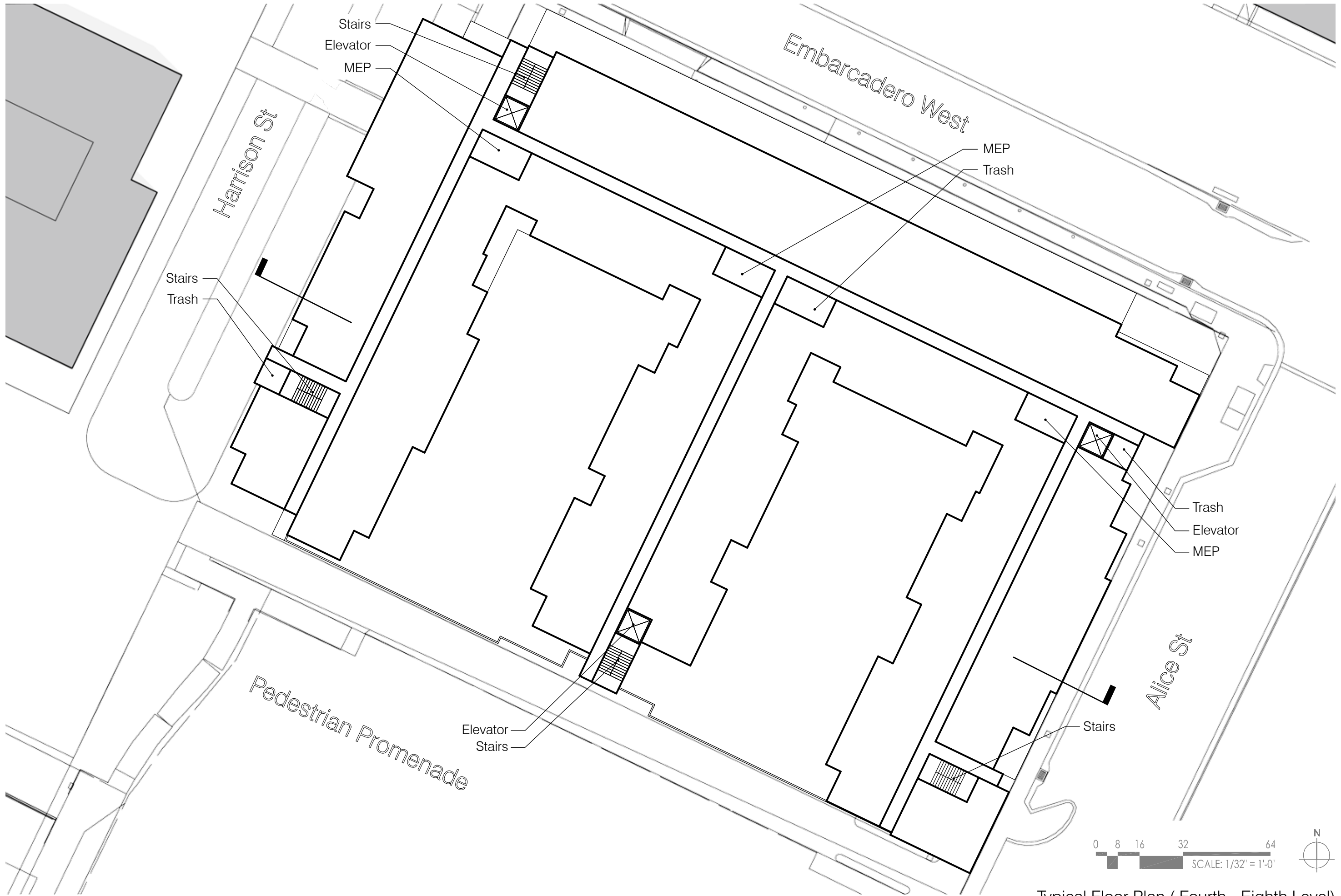


Parking Space Info
Ground Floor Parking: 117 Stalls
Second Floor Parking: 123 Stalls
Parking Provided at 255 Second Street,
Site G Garage: 42
Total Parking: 282 Stalls Provided
Total Required: 282 Stalls

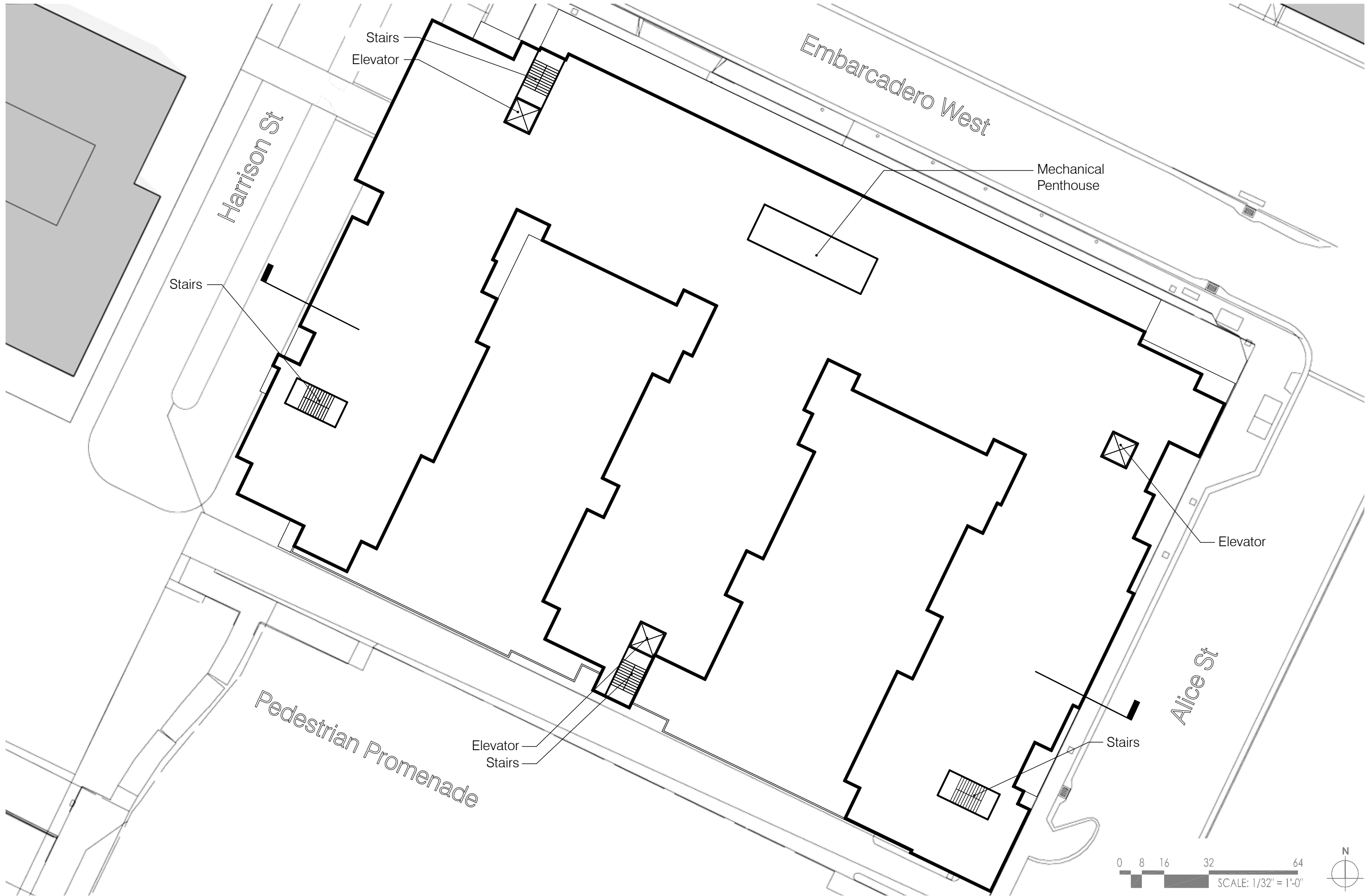
First Floor Plan



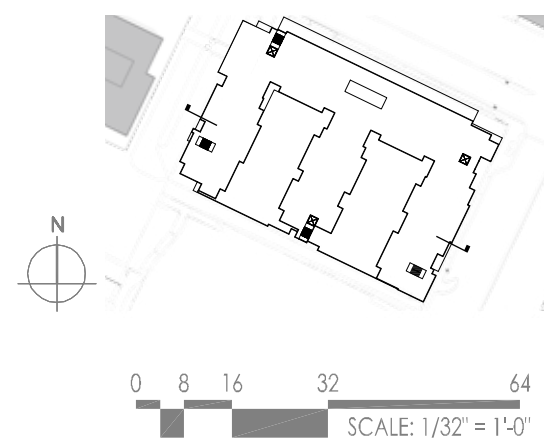
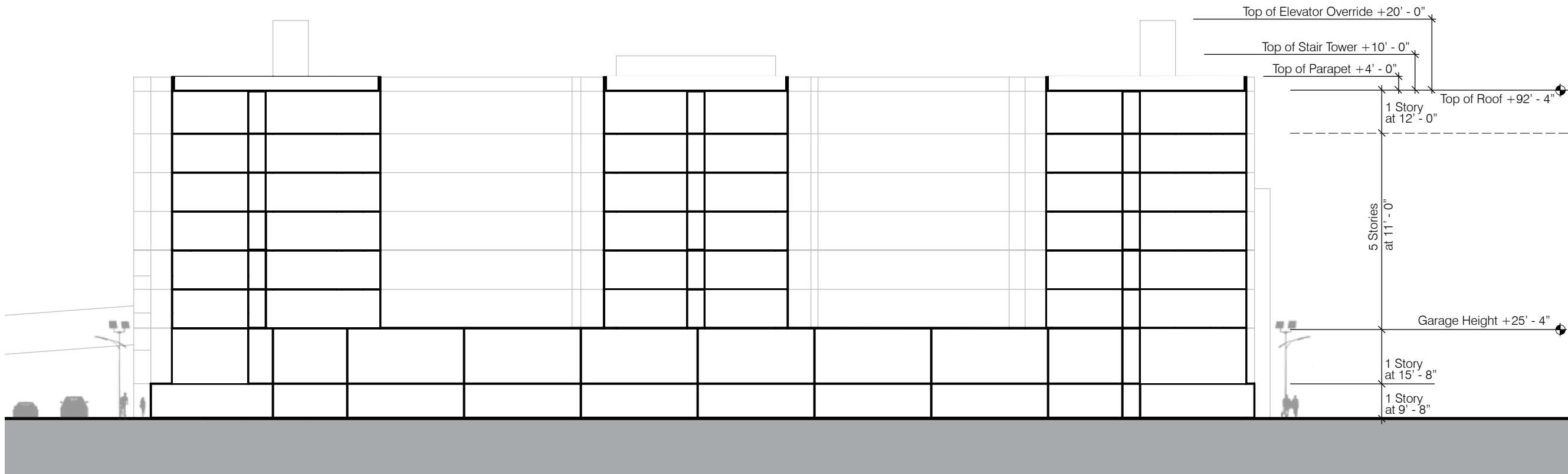




Typical Floor Plan (Fourth - Eighth Level)



Roof Plan

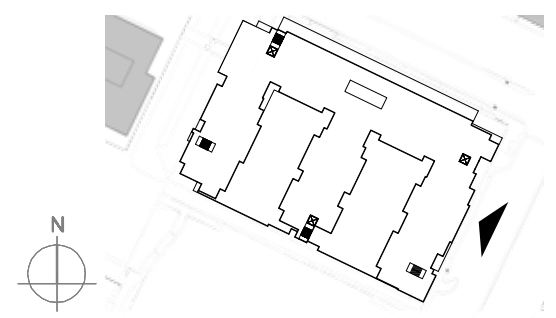
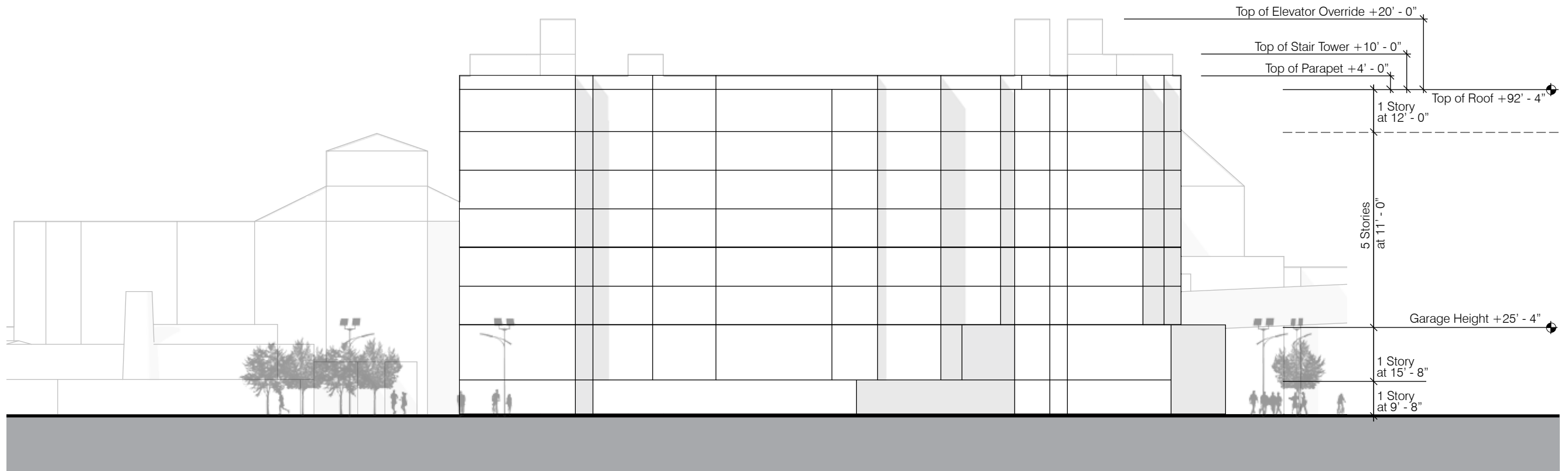


Section

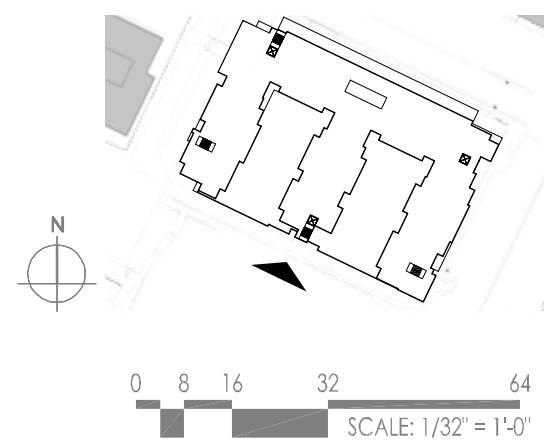


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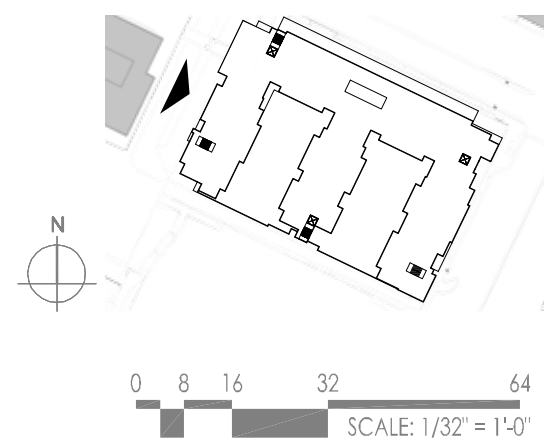
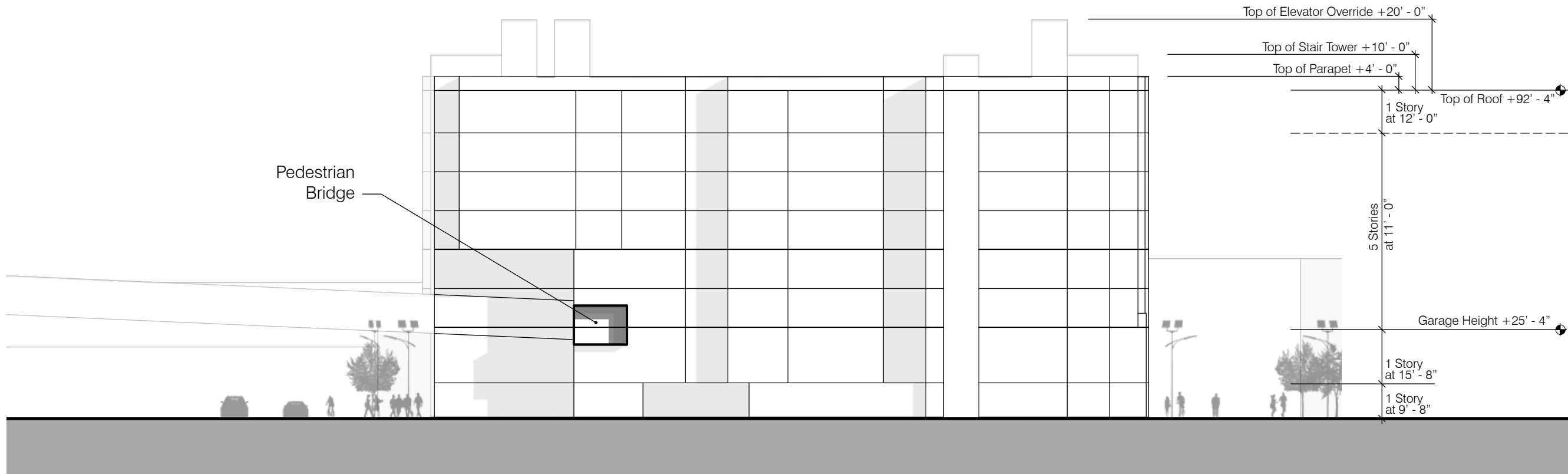
JACK LONDON SQUARE
OAKLAND, CALIFORNIA
PARCEL F-2



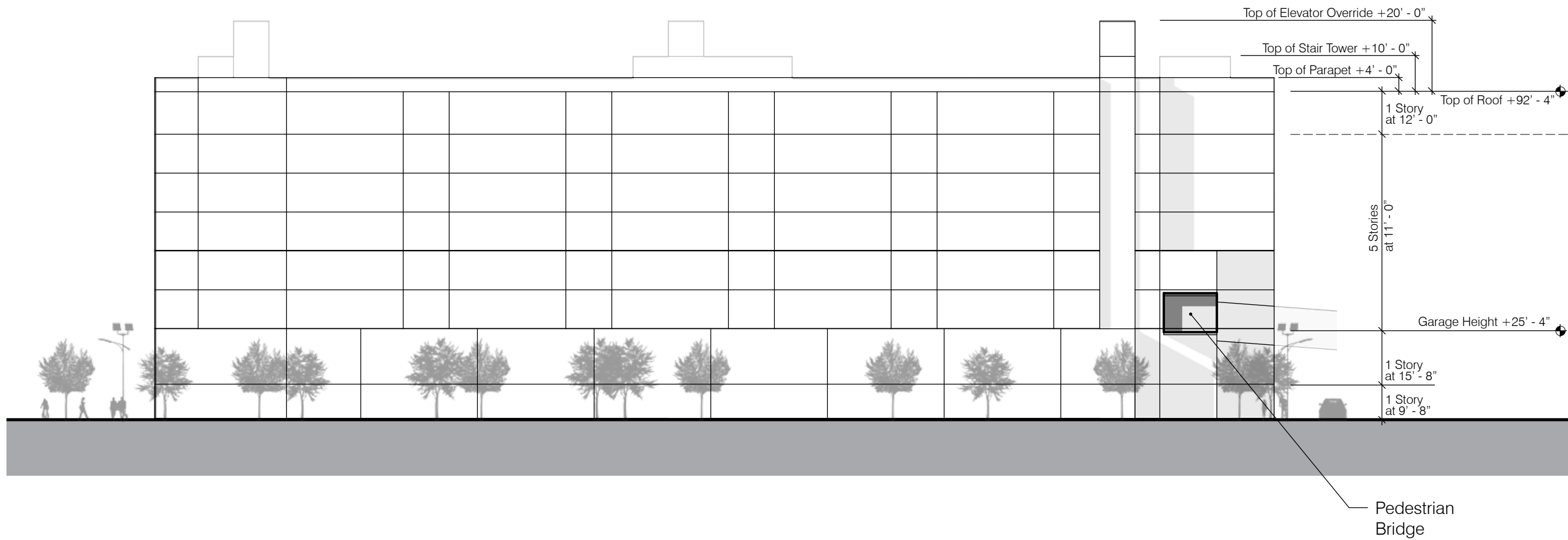
East Elevation



South Elevation

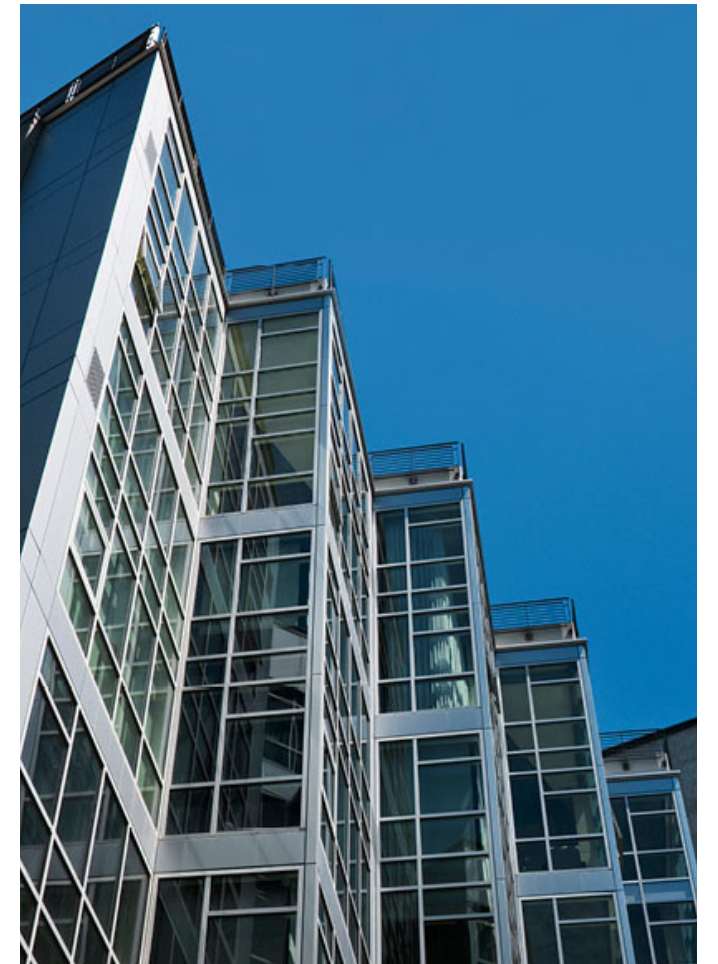
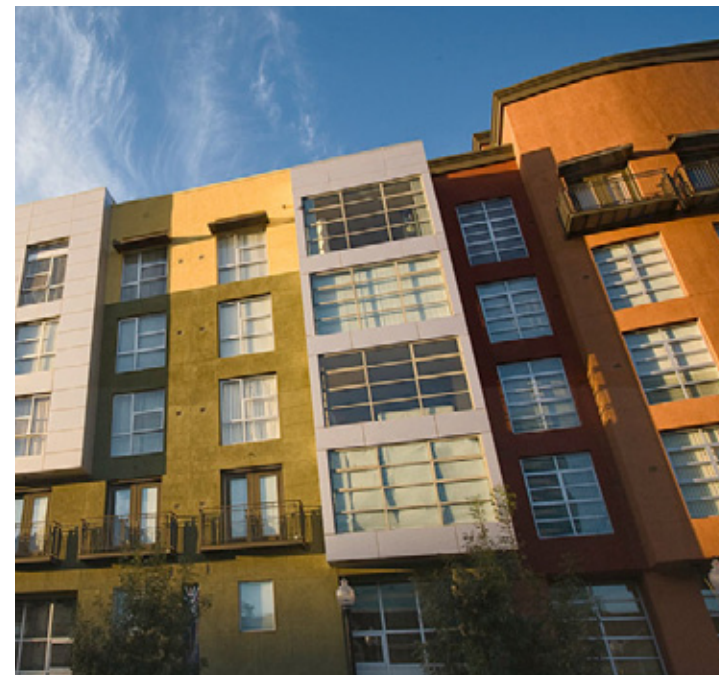
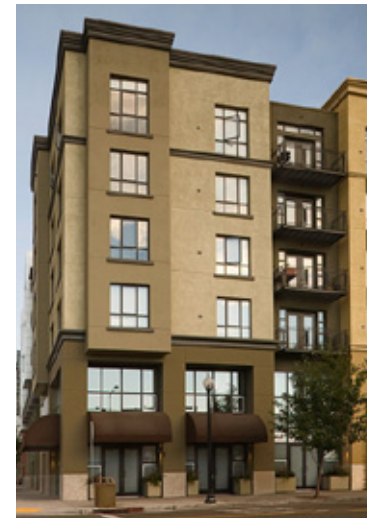


West Elevation



North Elevation

Colors, Finishes and Materials to be
selected during FDP Phase



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PARCEL F-2

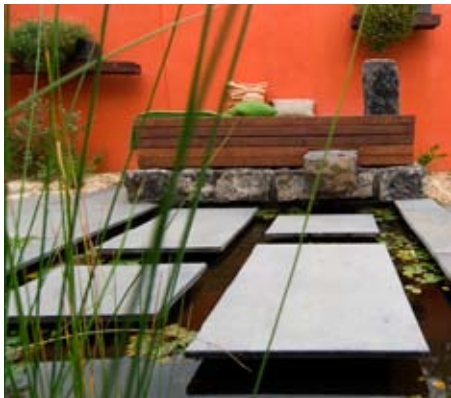
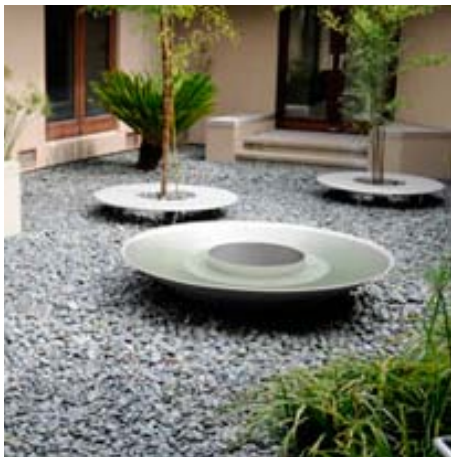
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OAKLAND, CALIFORNIA



Exterior Design Study



Existing Landscape and Lighting



Amenity, Landscape and Lighting Study

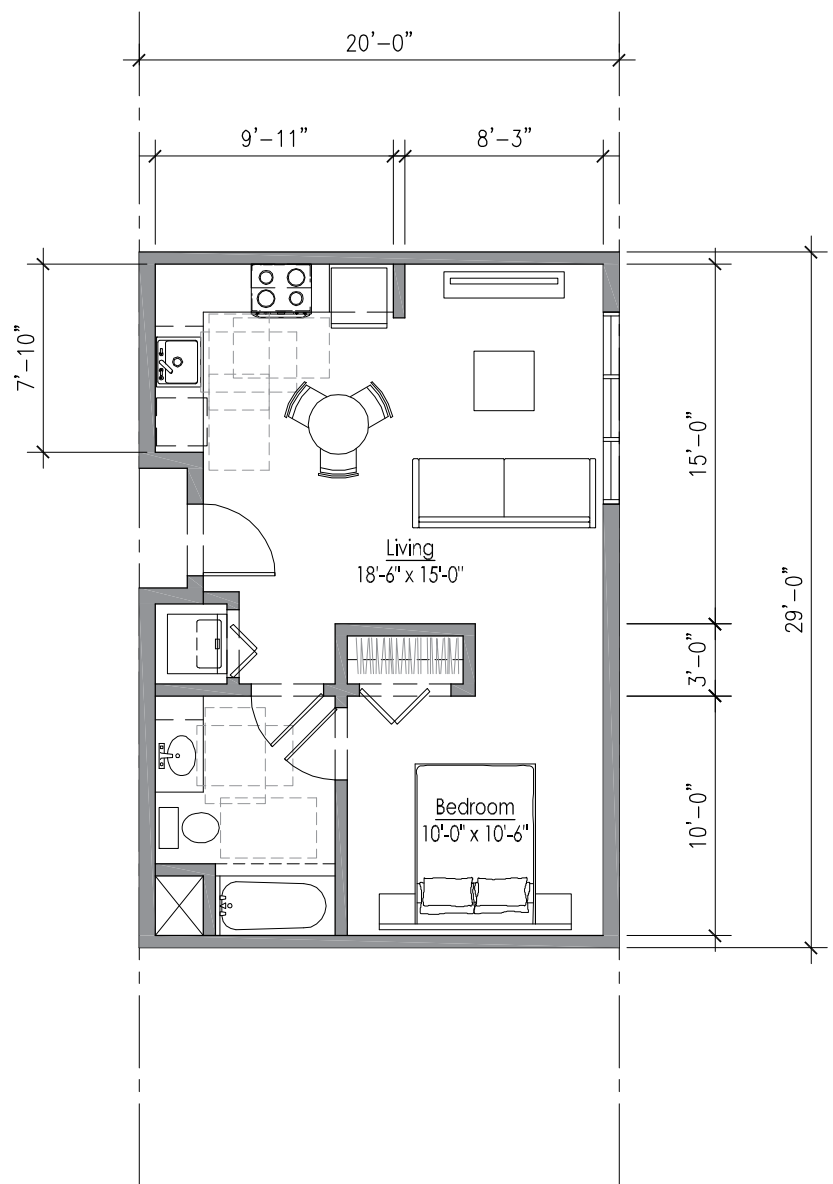
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PARCEL F-2

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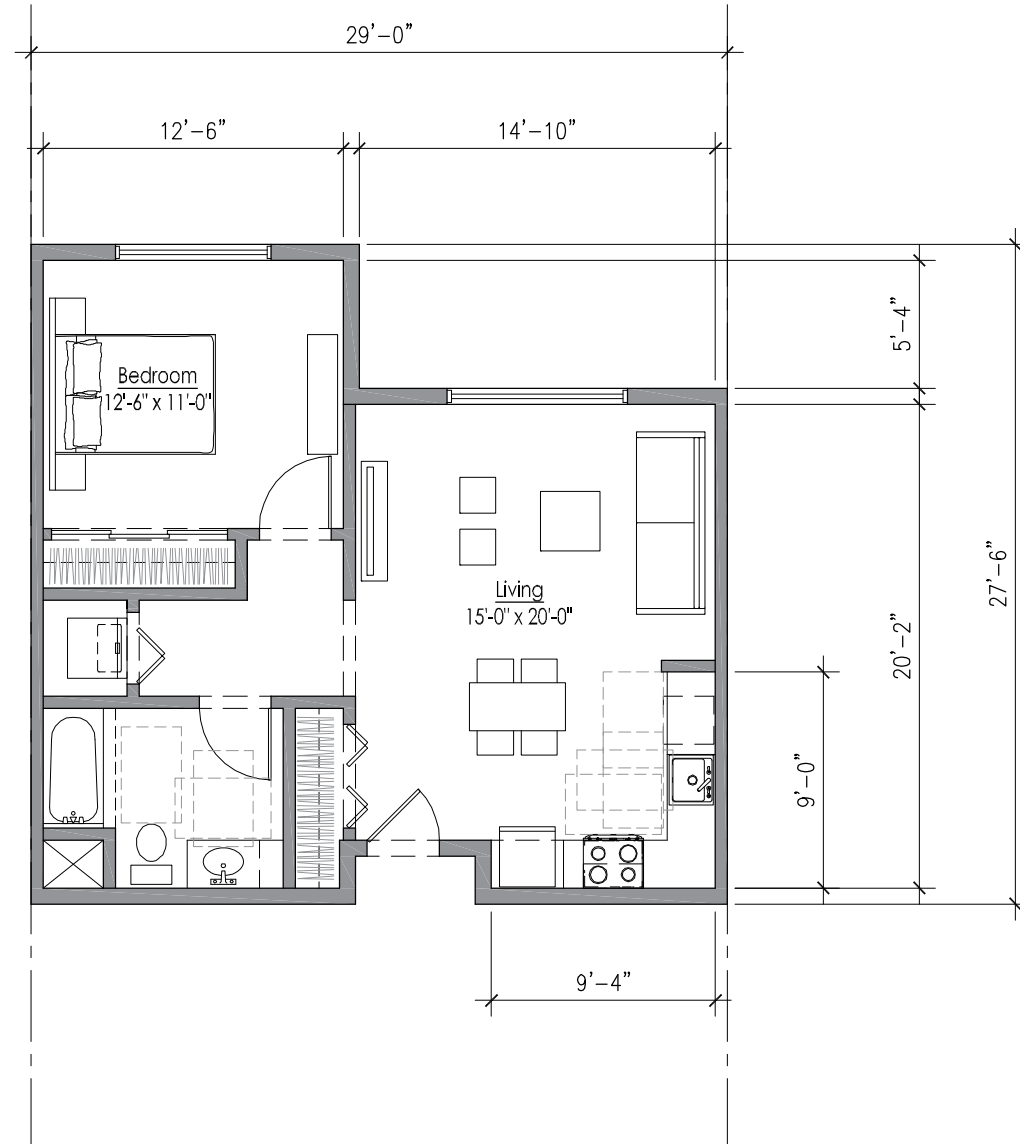






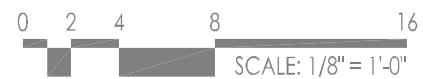
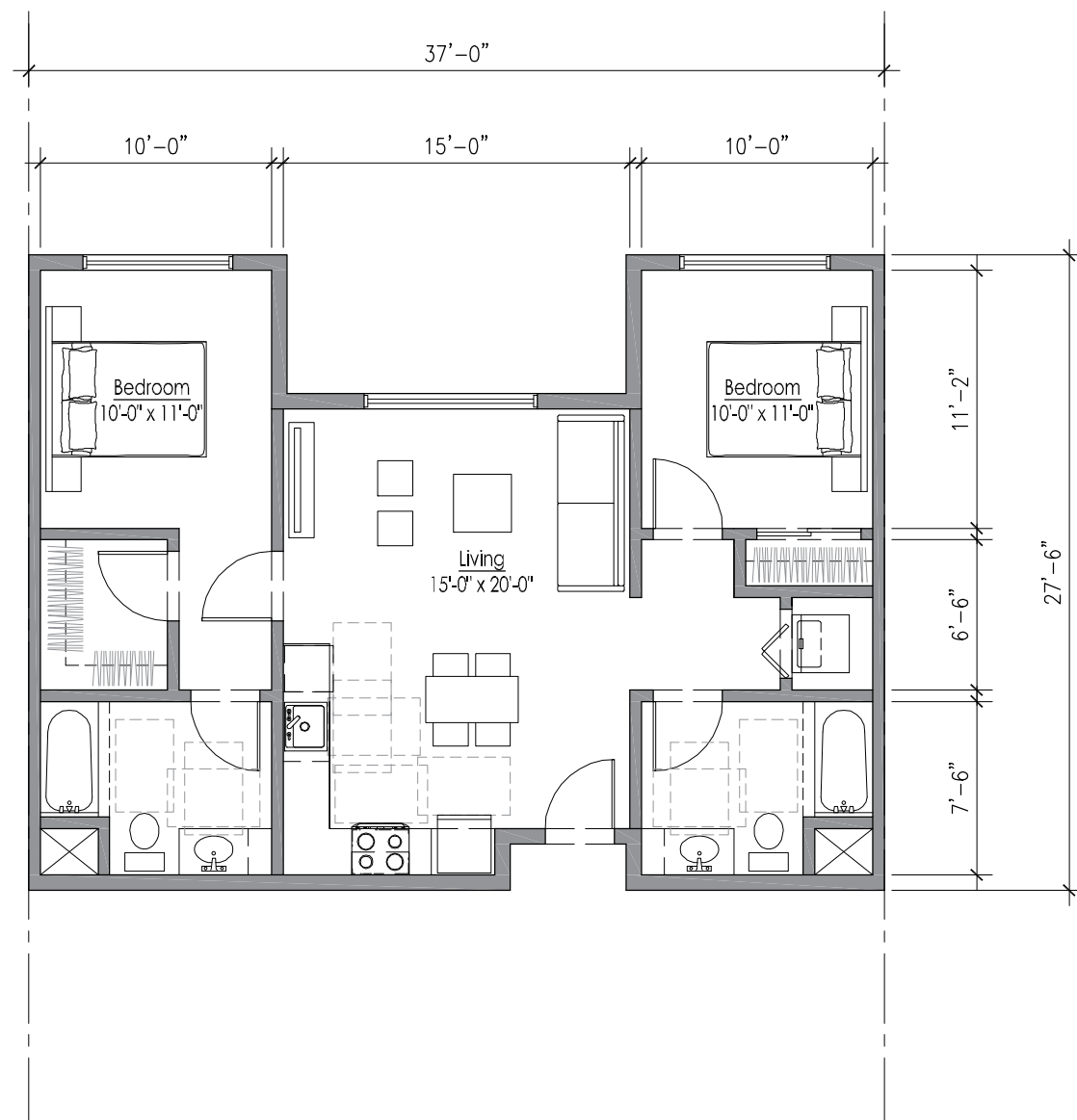
Unit A - Junior One Bed/One Bath





Unit B - One Bed/One Bath





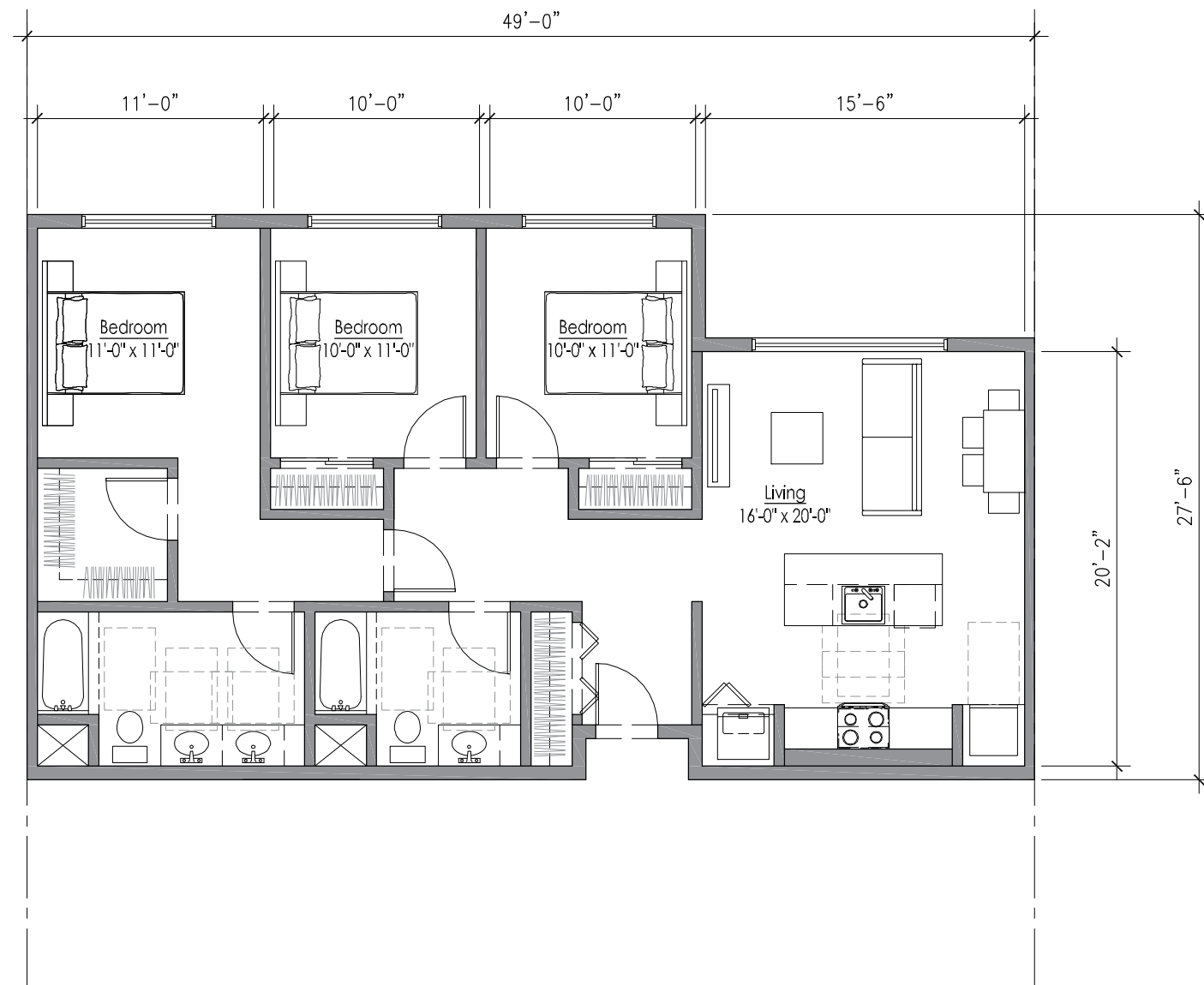
Unit C - Two Bed/Two Bath



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PARCEL F-2

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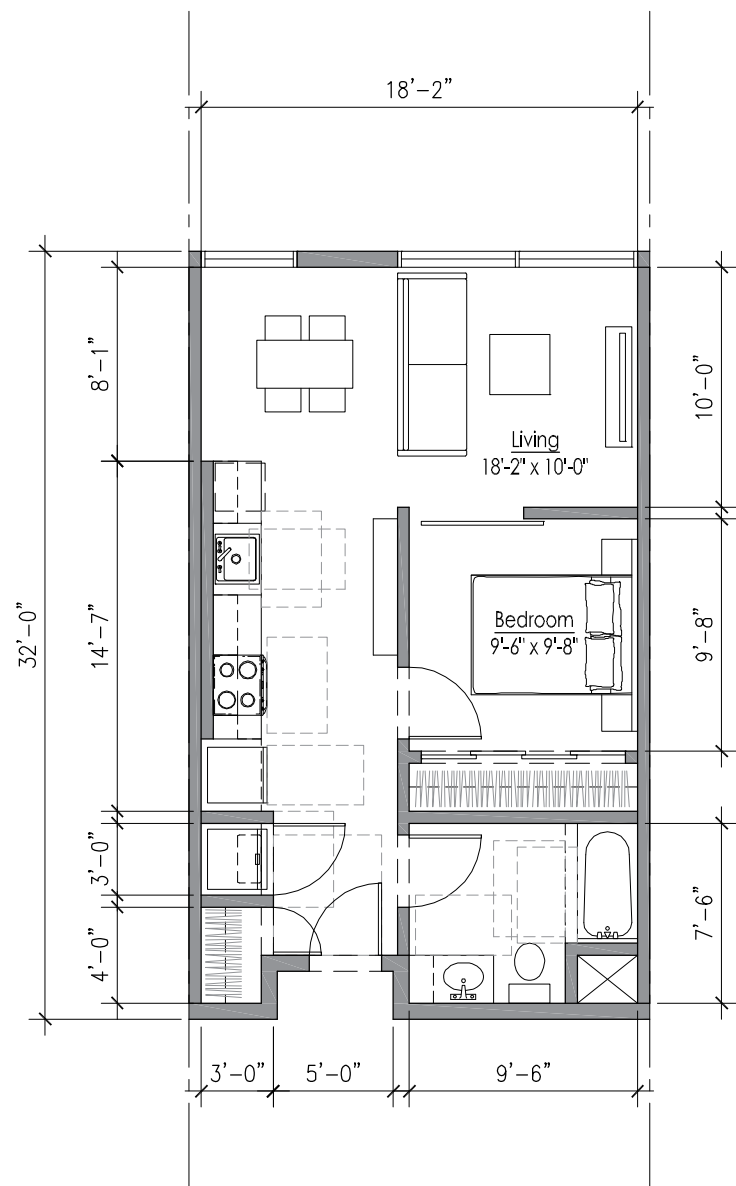
Unit D - Three Bed/Two Bath



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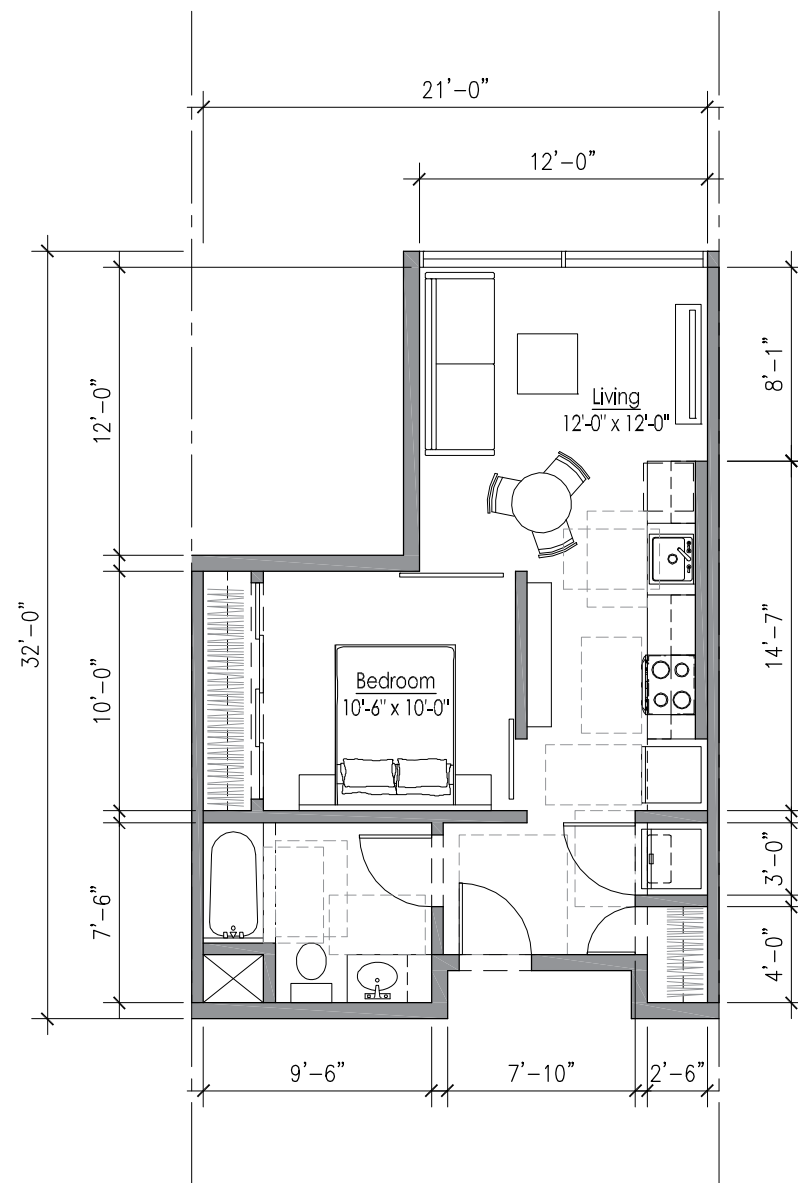
Unit E - Junior One Bed/One Bath



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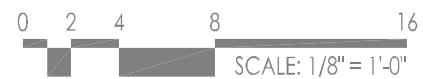
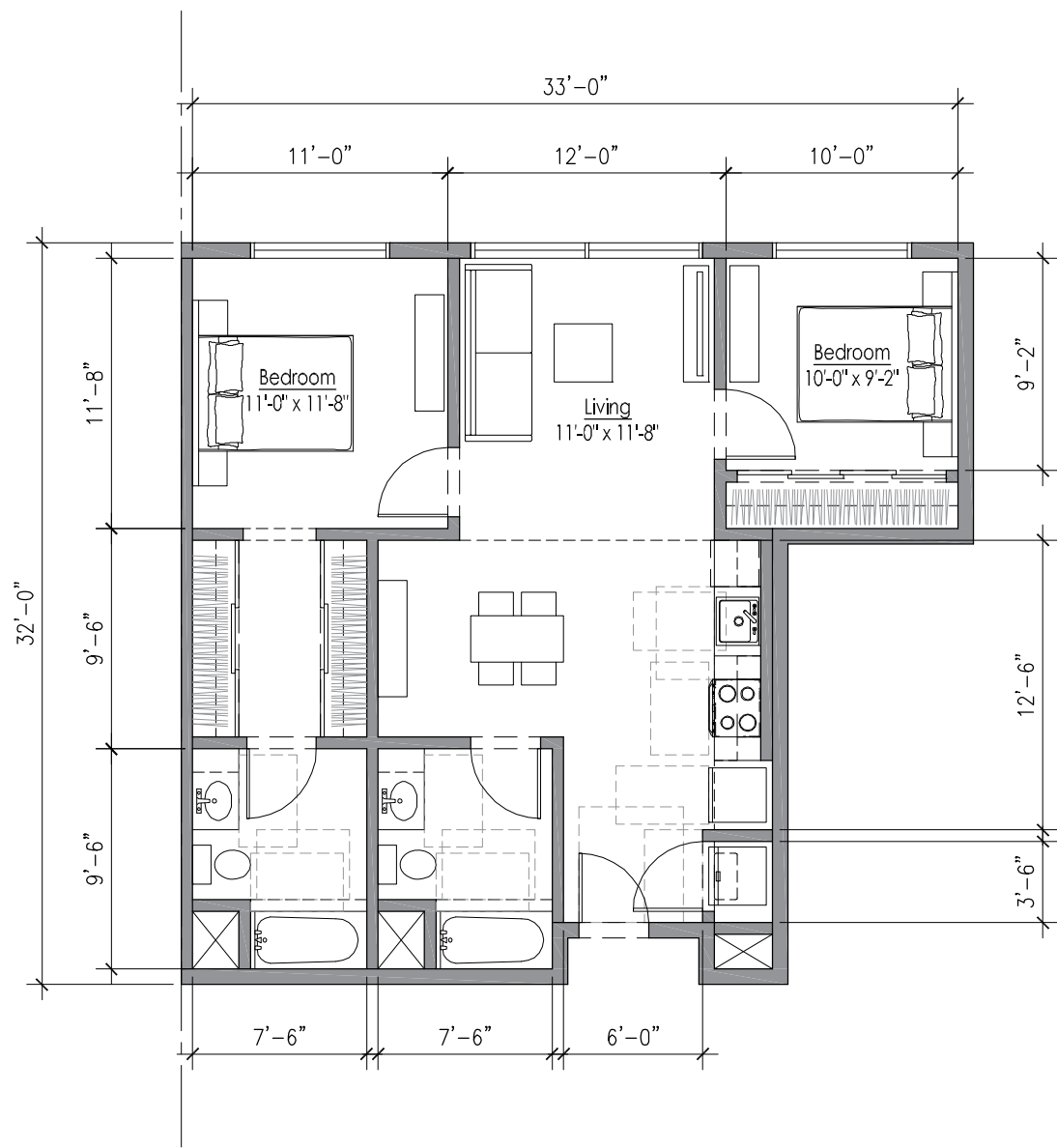
Unit F - Junior One Bed/One Bath



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Unit G - Two Bed/Two Bath



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google maps dated 8/29/2012

23 over 3
370 Units
Parcel F-2



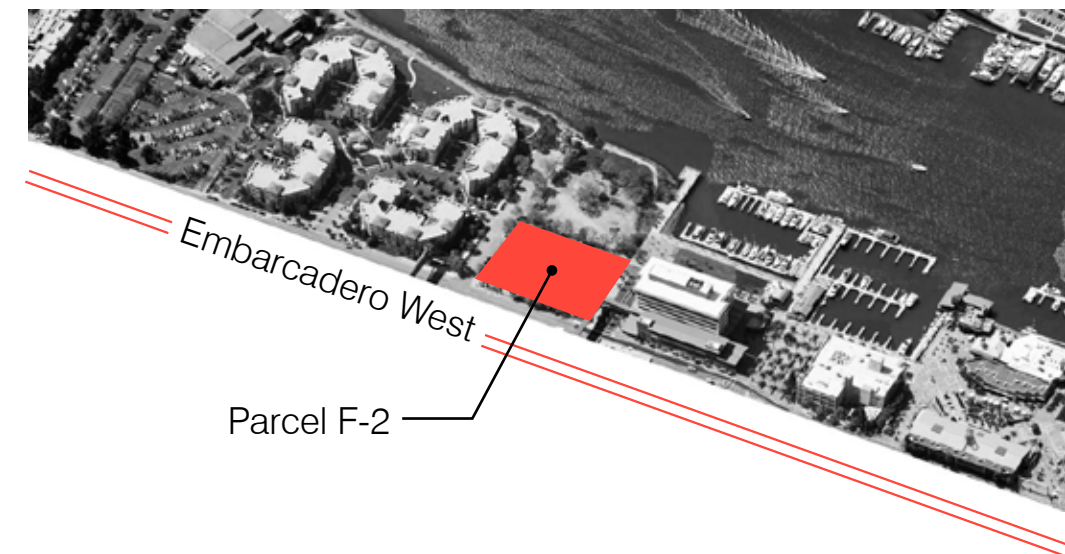
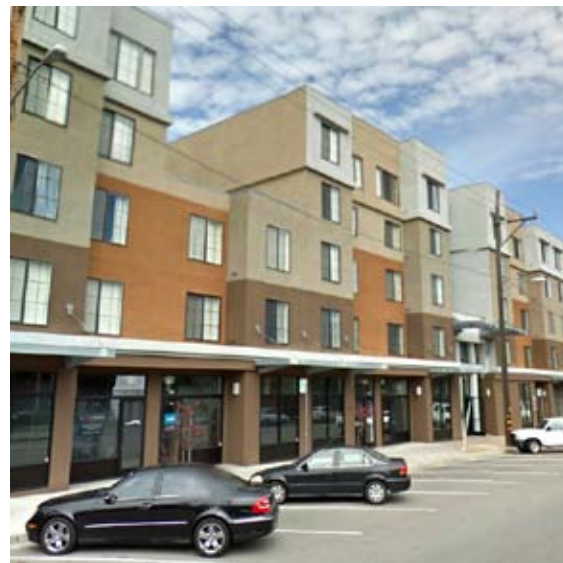
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PARCEL F-2

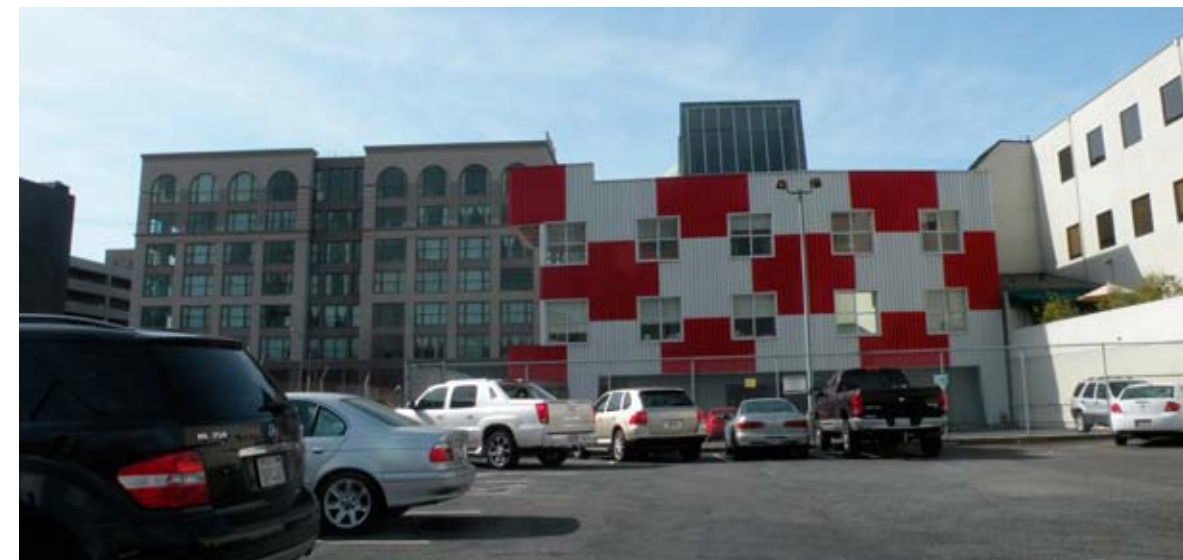
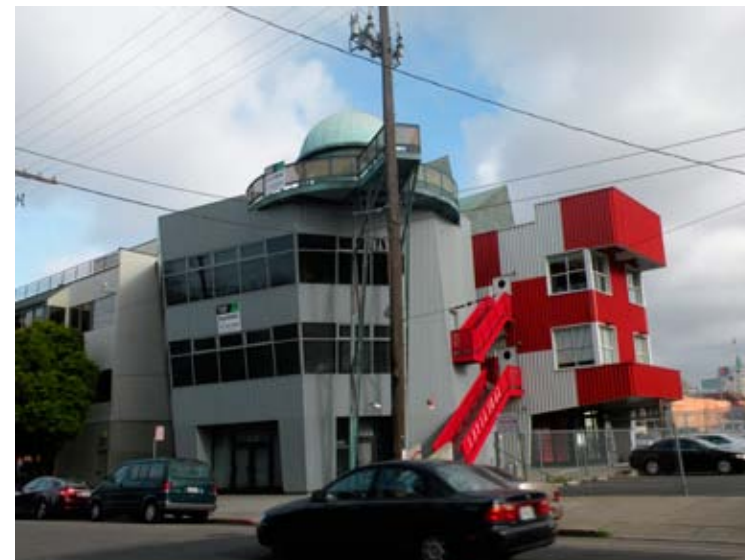
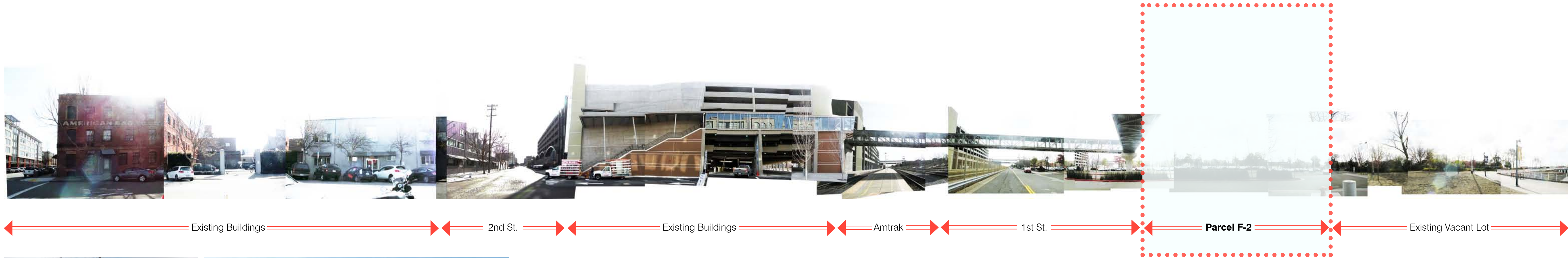
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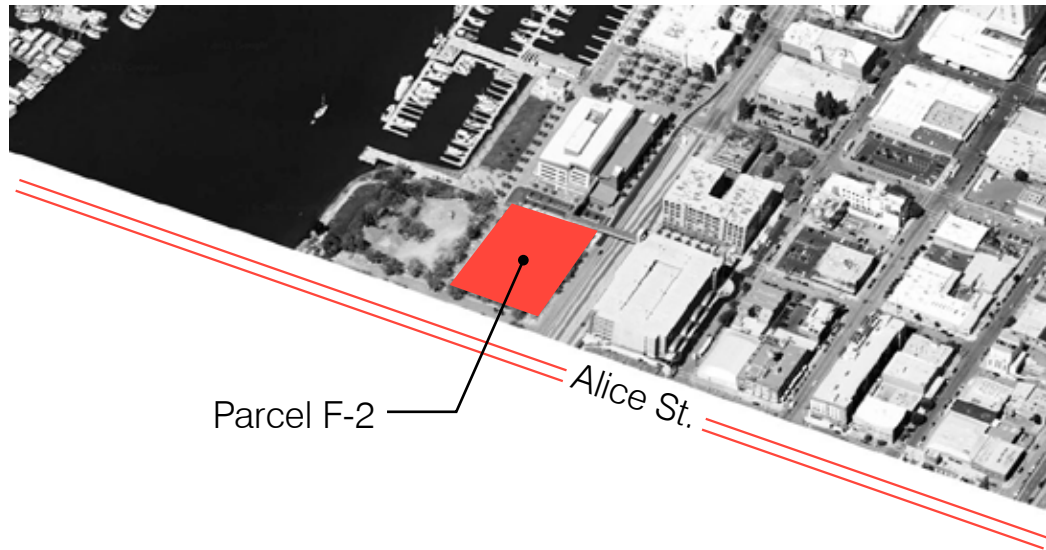
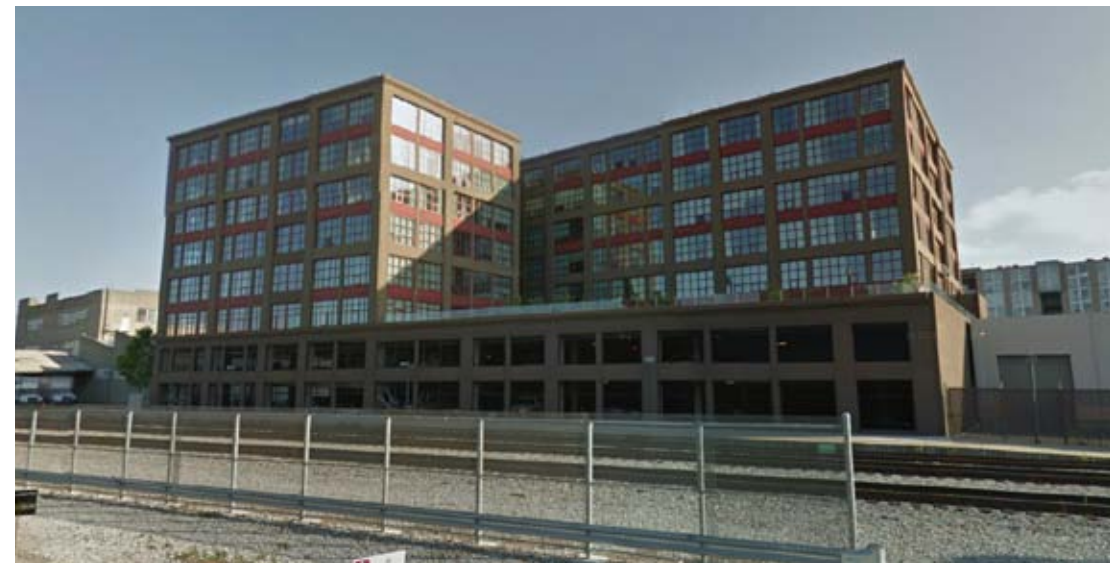
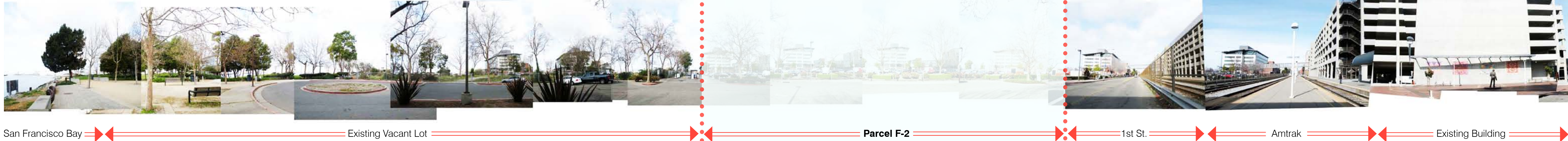
Existing Buildings Alice St. Parcel F-2 Harrison St. Existing Buildings Webster St.



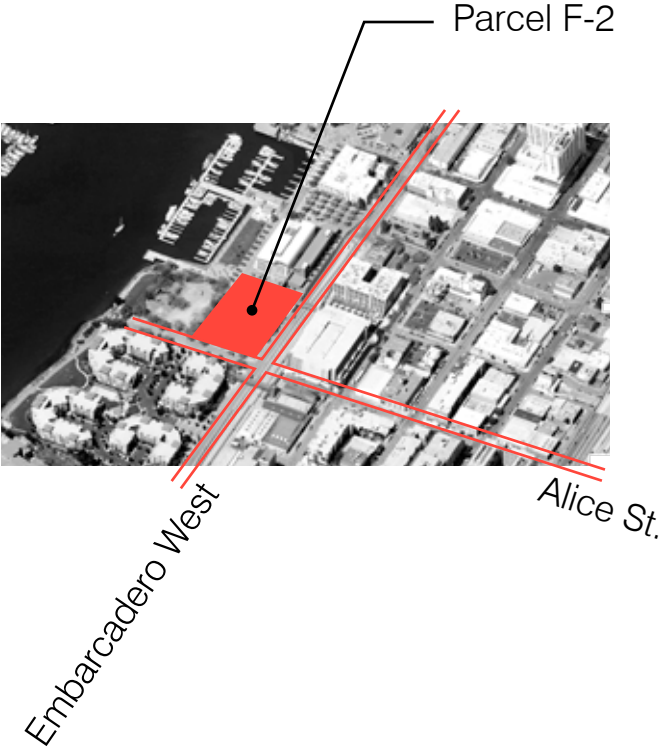
Embarcadero West Panoramic



Harrison Street Panoramic



Alice Street Panoramic

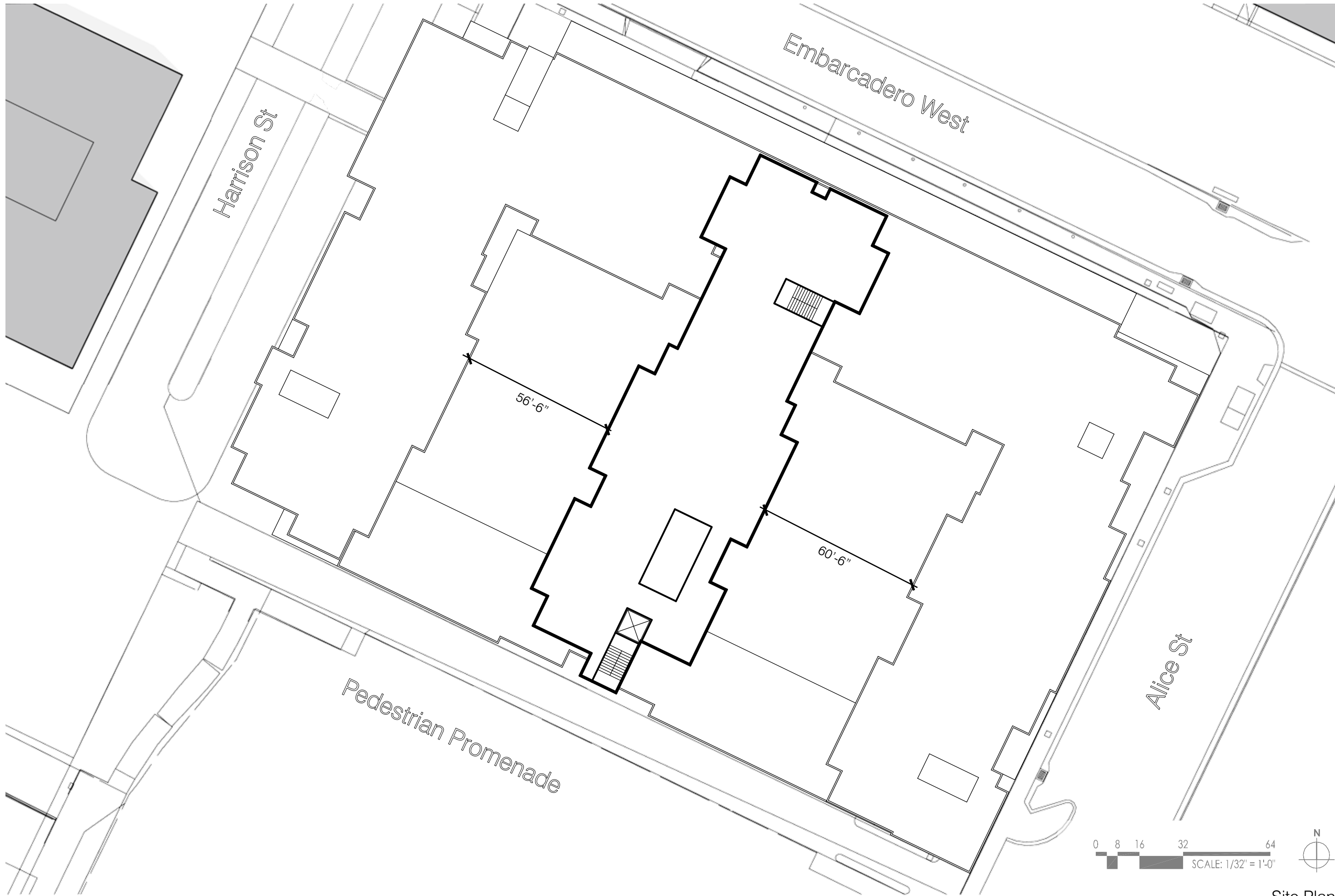


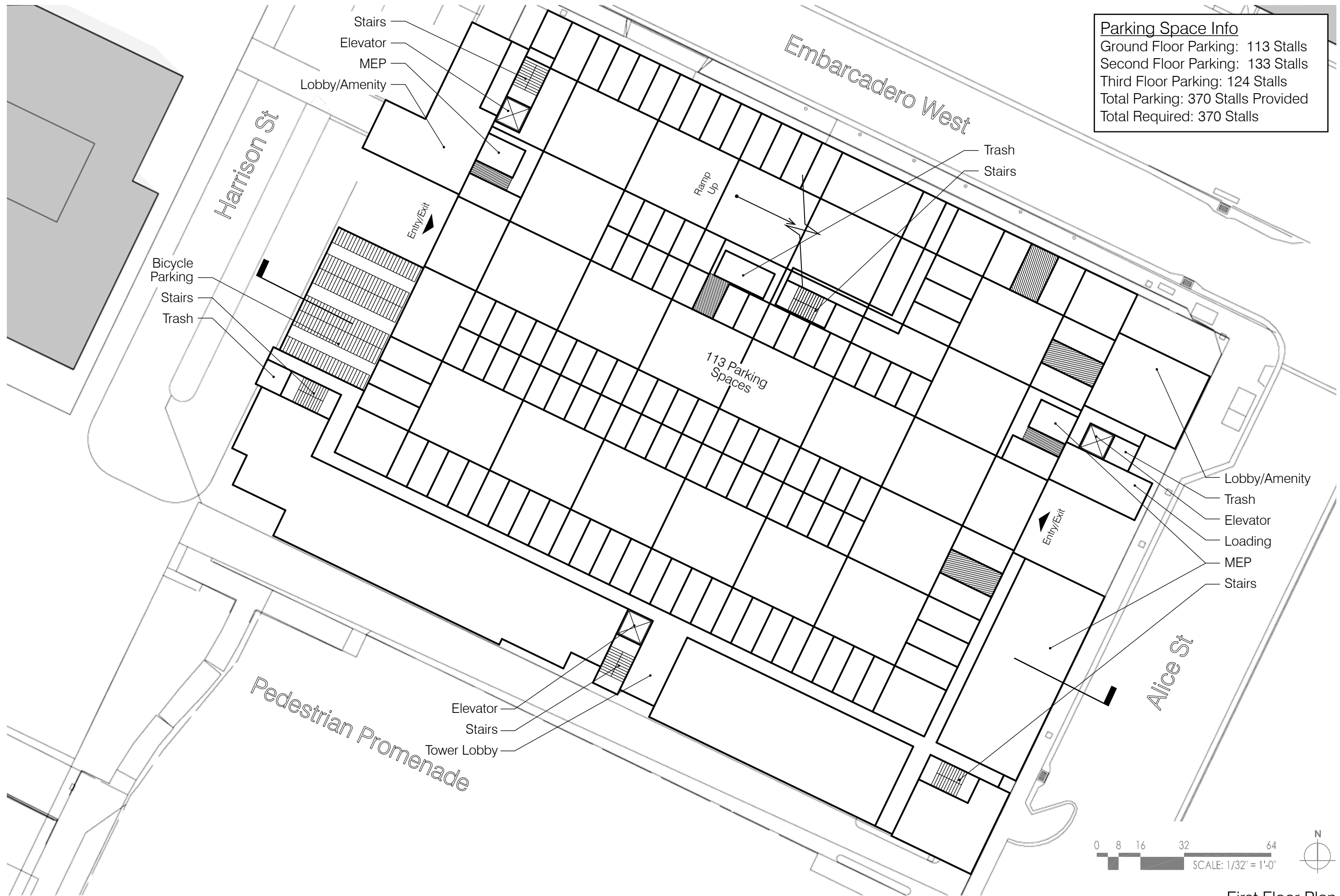
Parcel F-2 Contextual Photos

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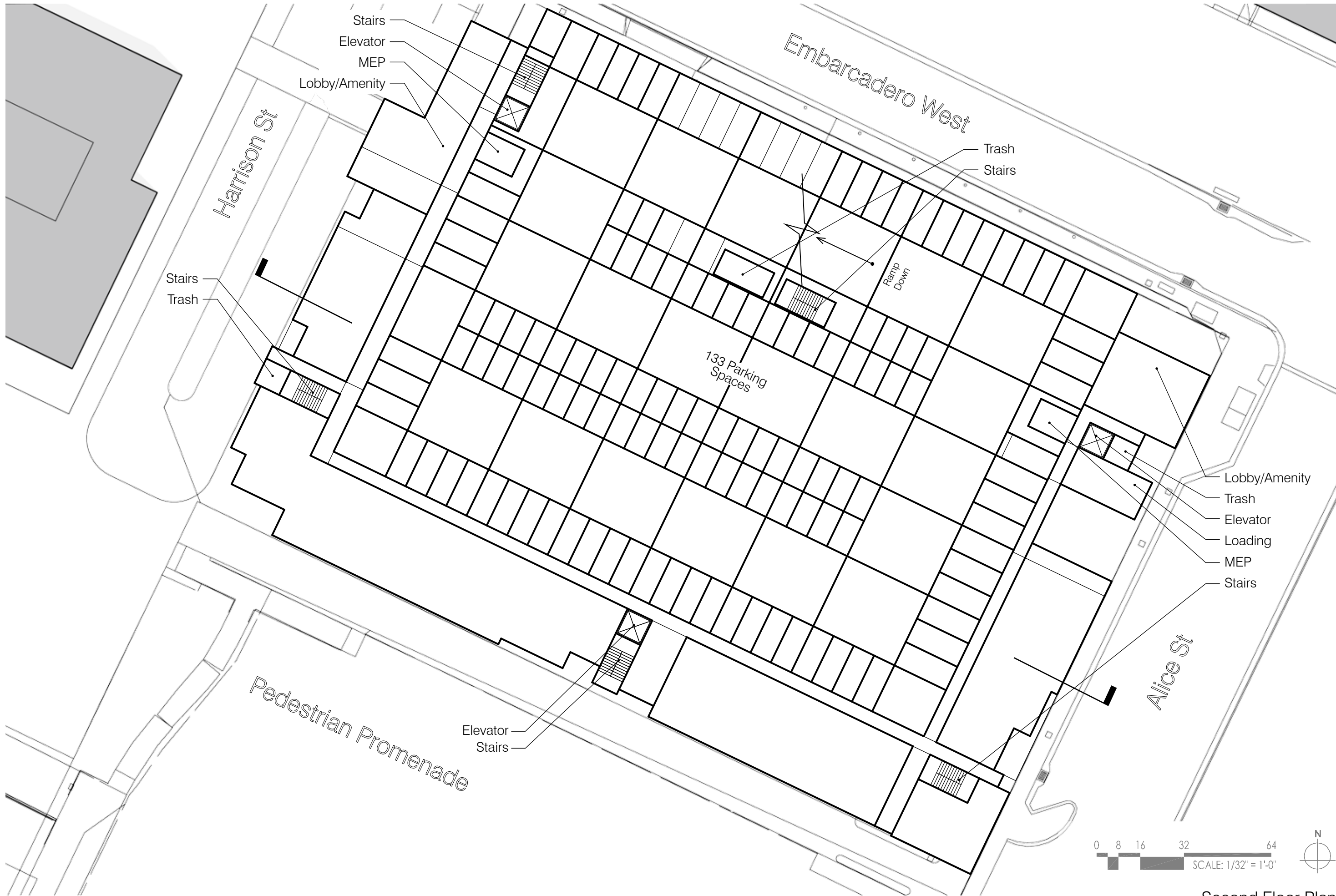
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OAKLAND, CALIFORNIA
PARCEL F-2

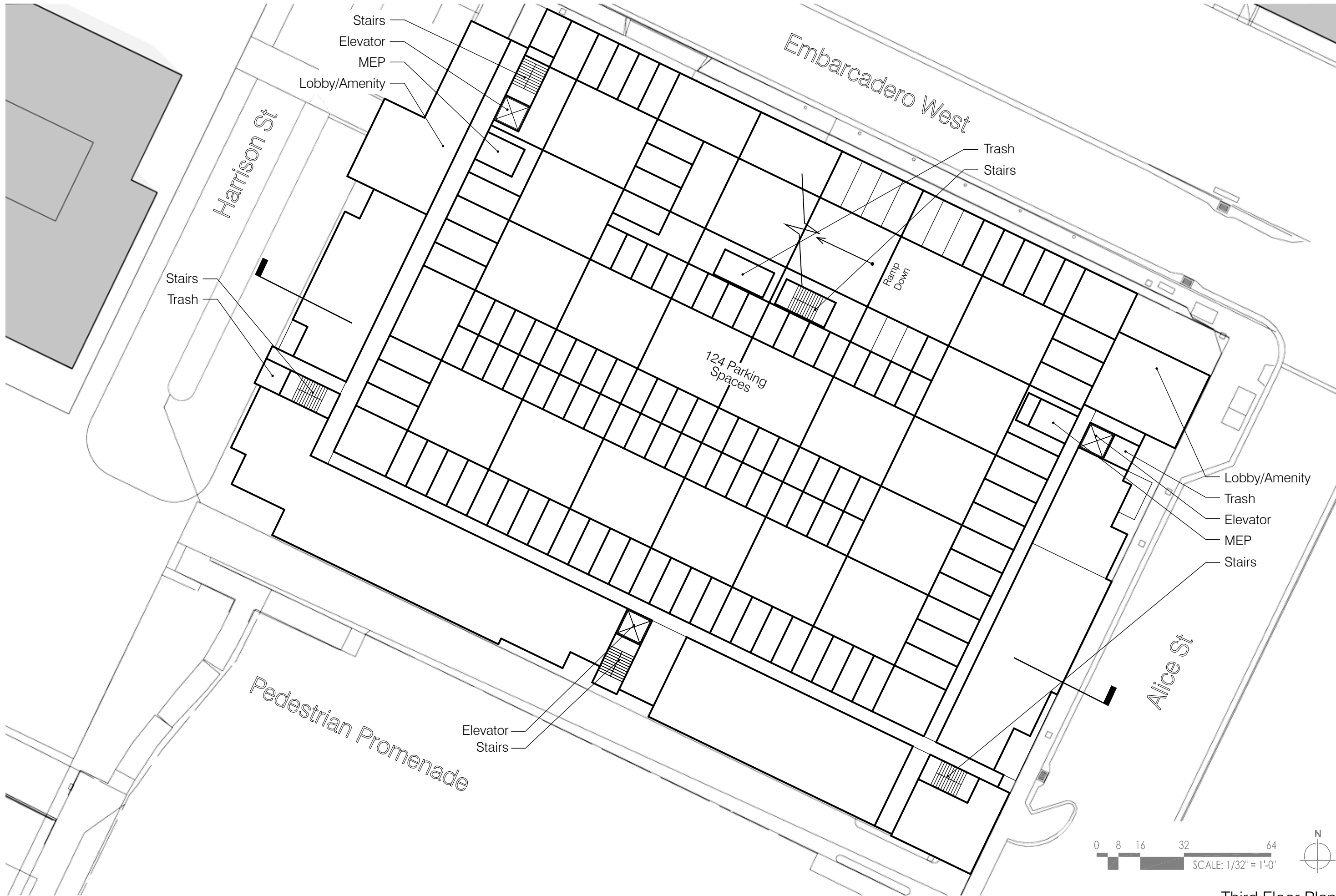




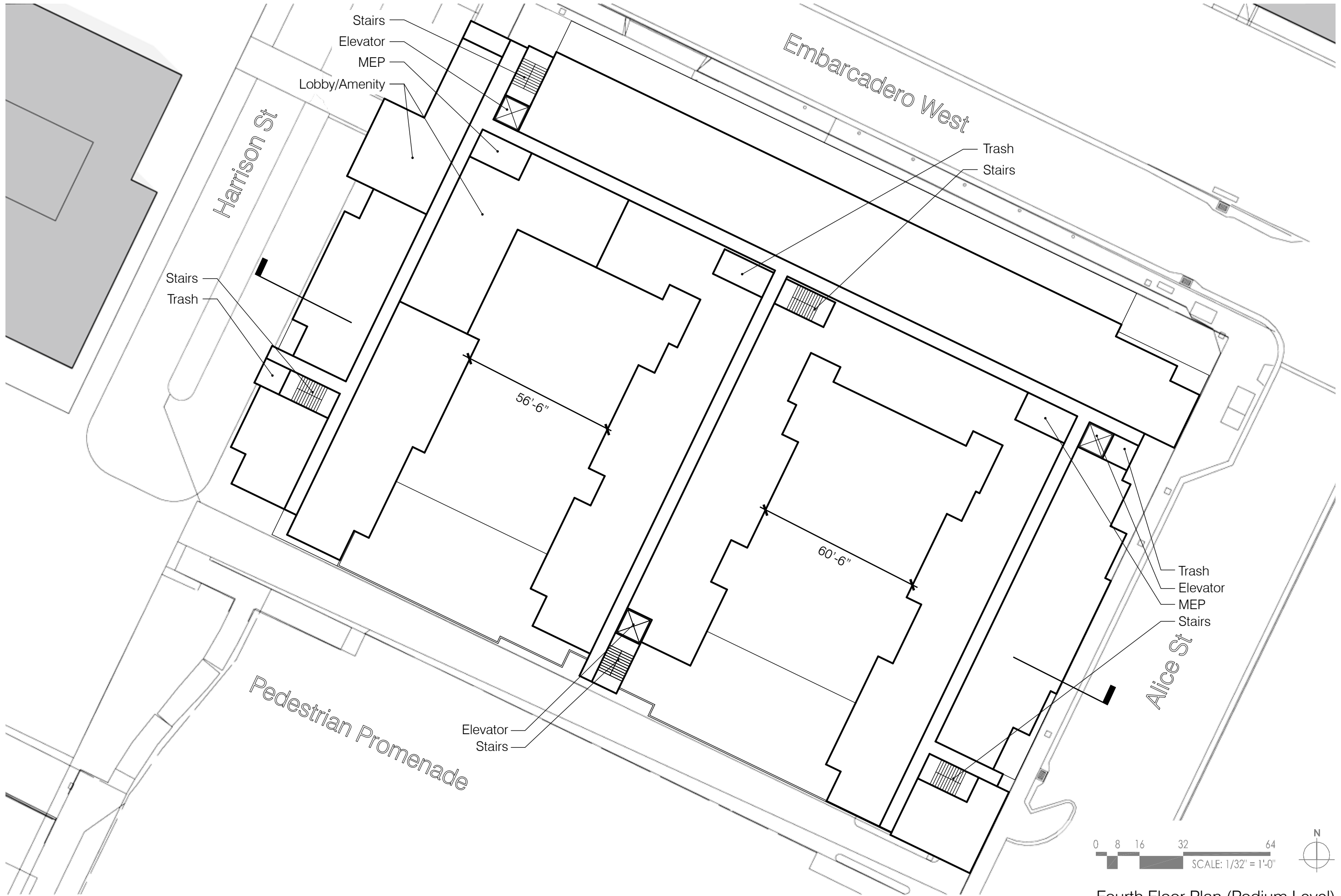


First Floor Plan

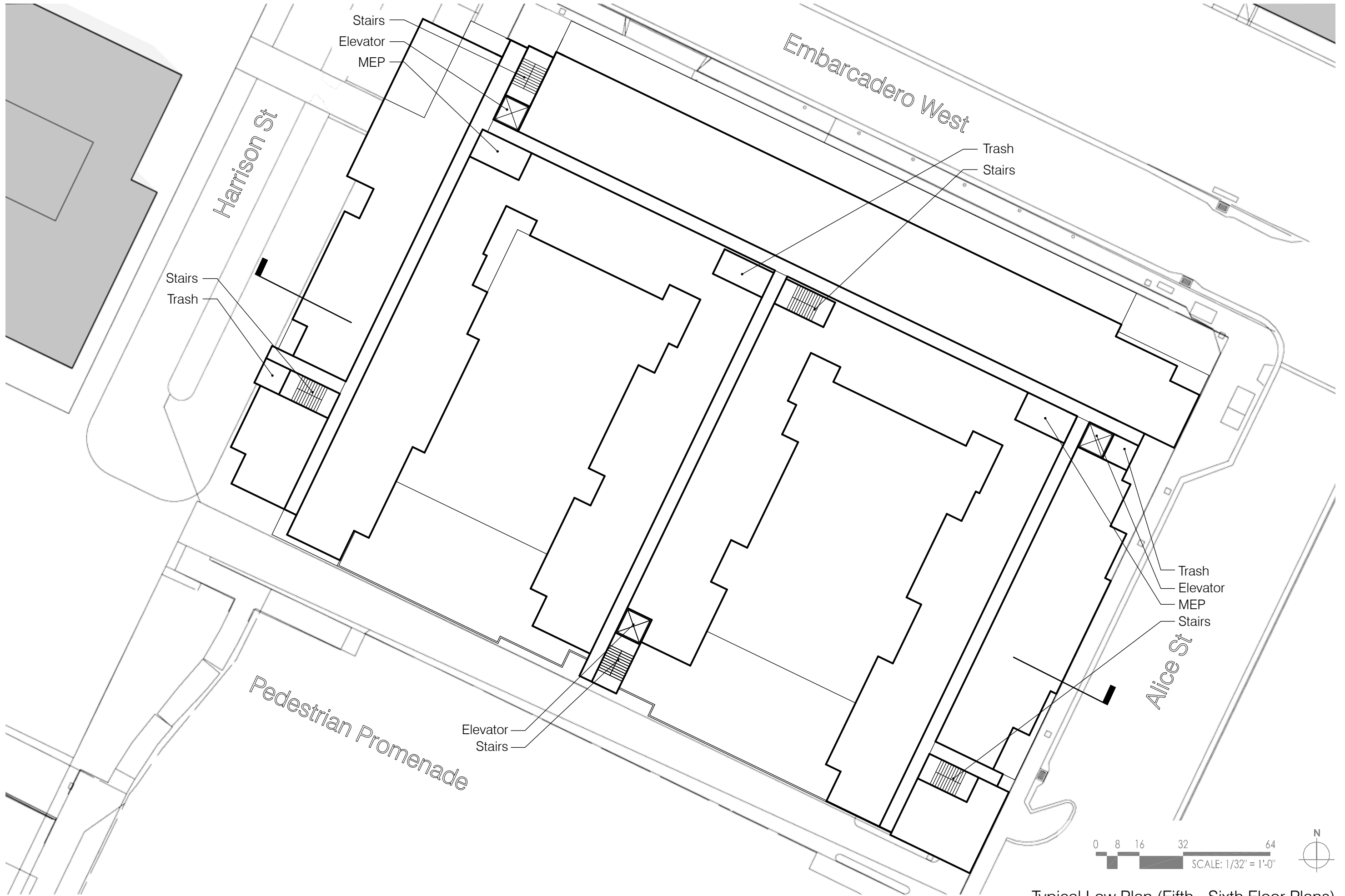




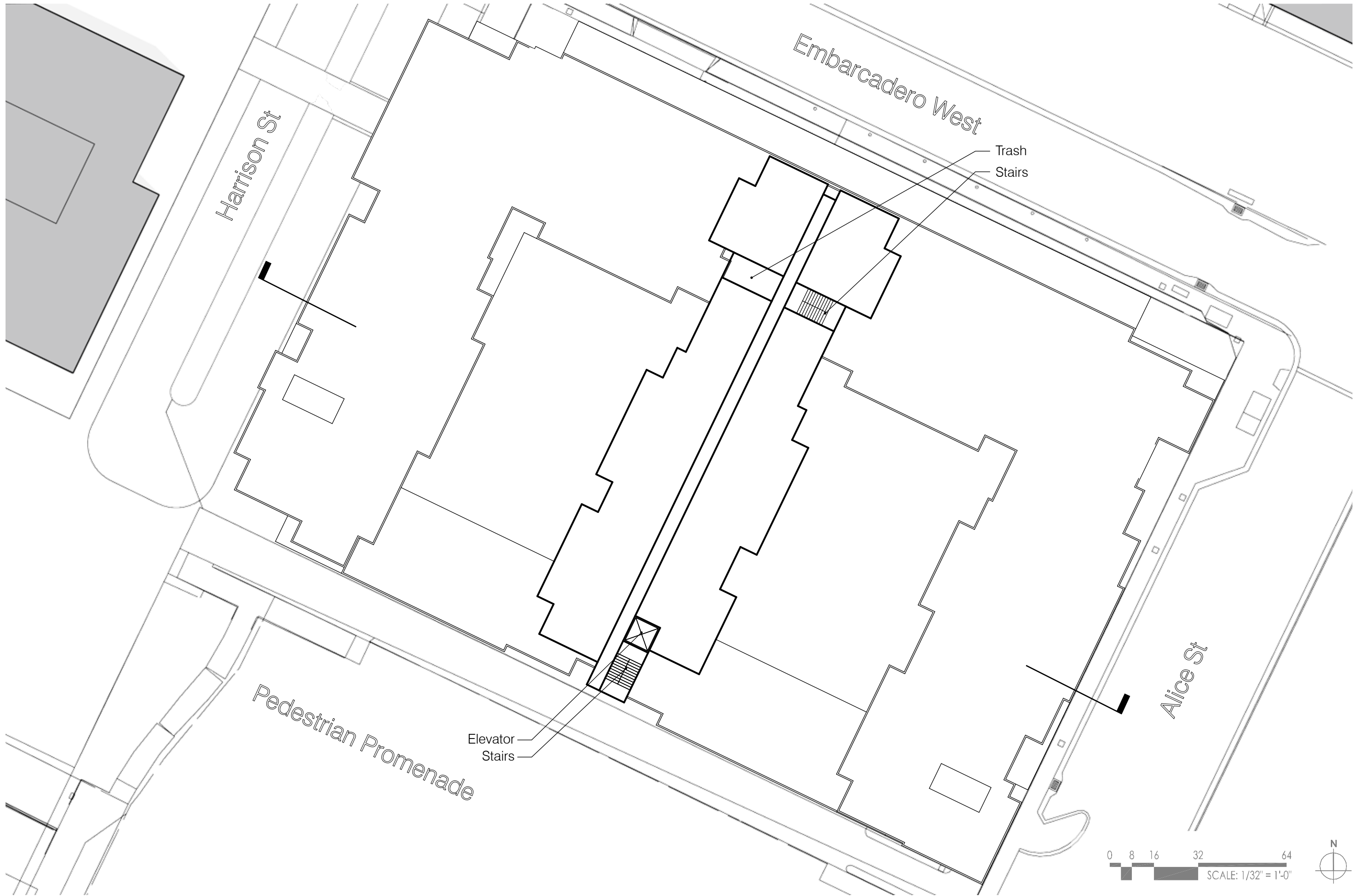
Third Floor Plan



Fourth Floor Plan (Podium Level)



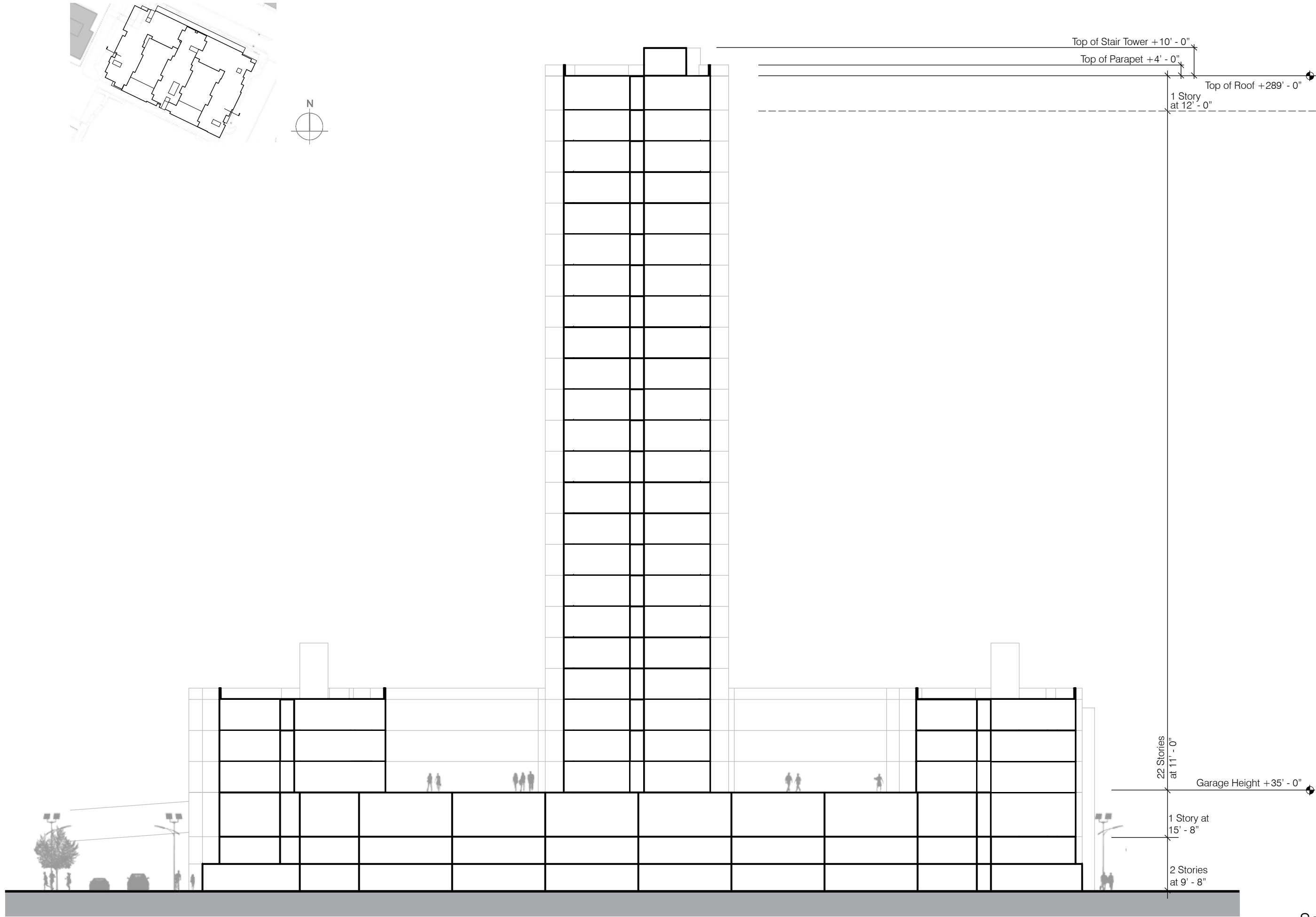
Typical Low Plan (Fifth - Sixth Floor Plans)



Typical Tower Plan (Seventh - Twenty Sixth Floor Plans)



Roof Plan



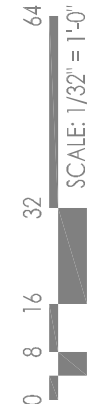
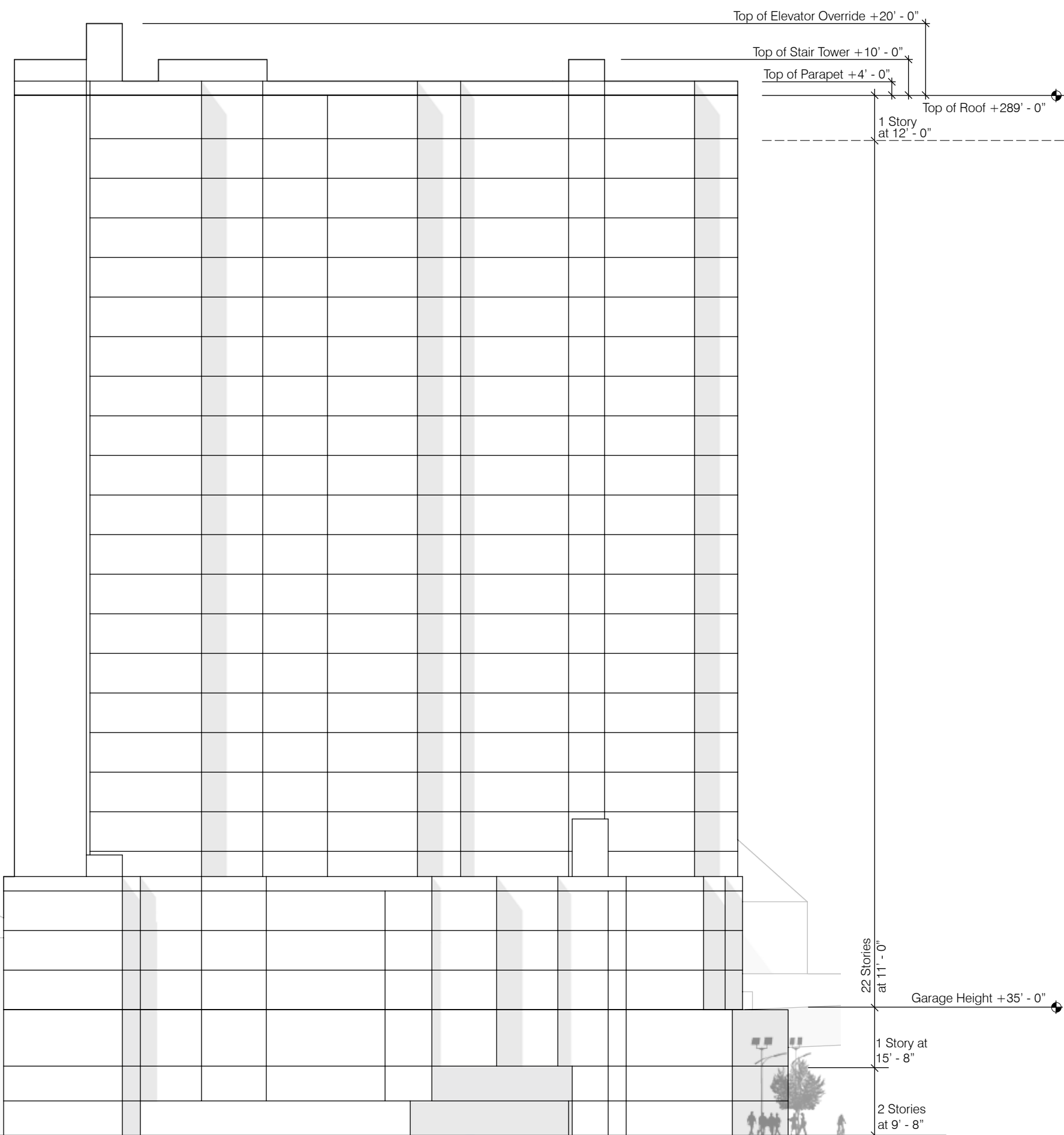
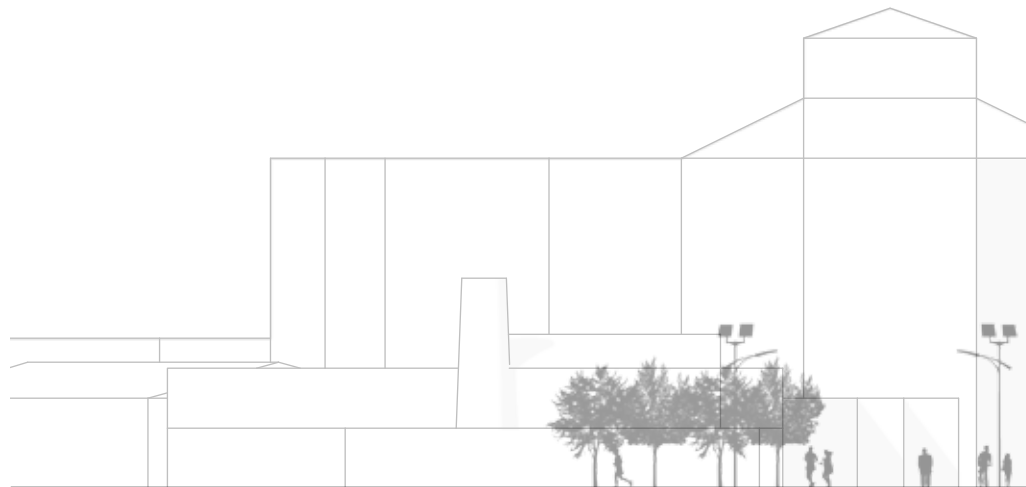
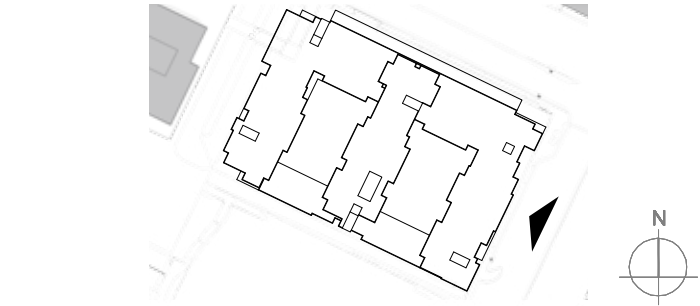
Section



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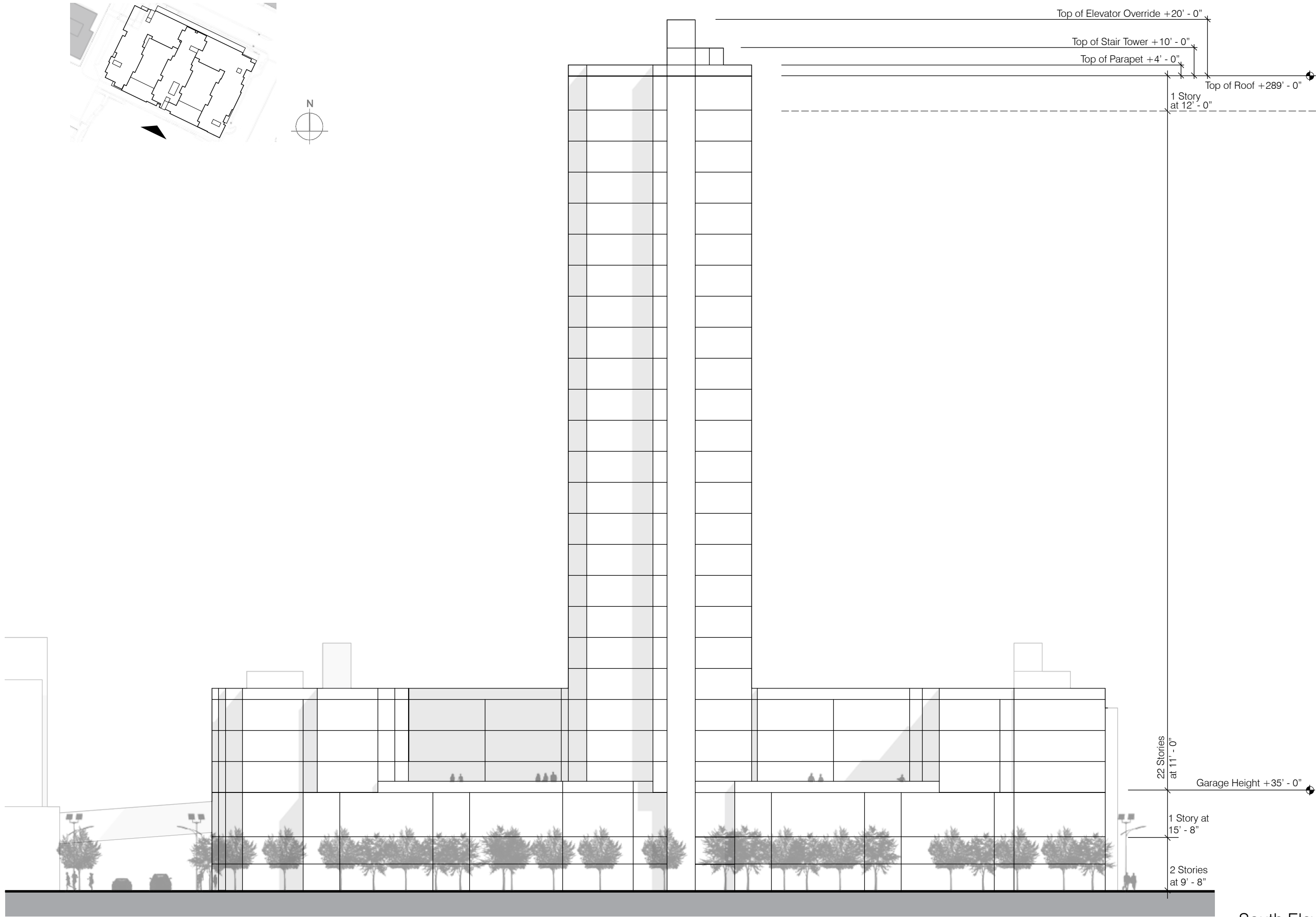
East Elevation



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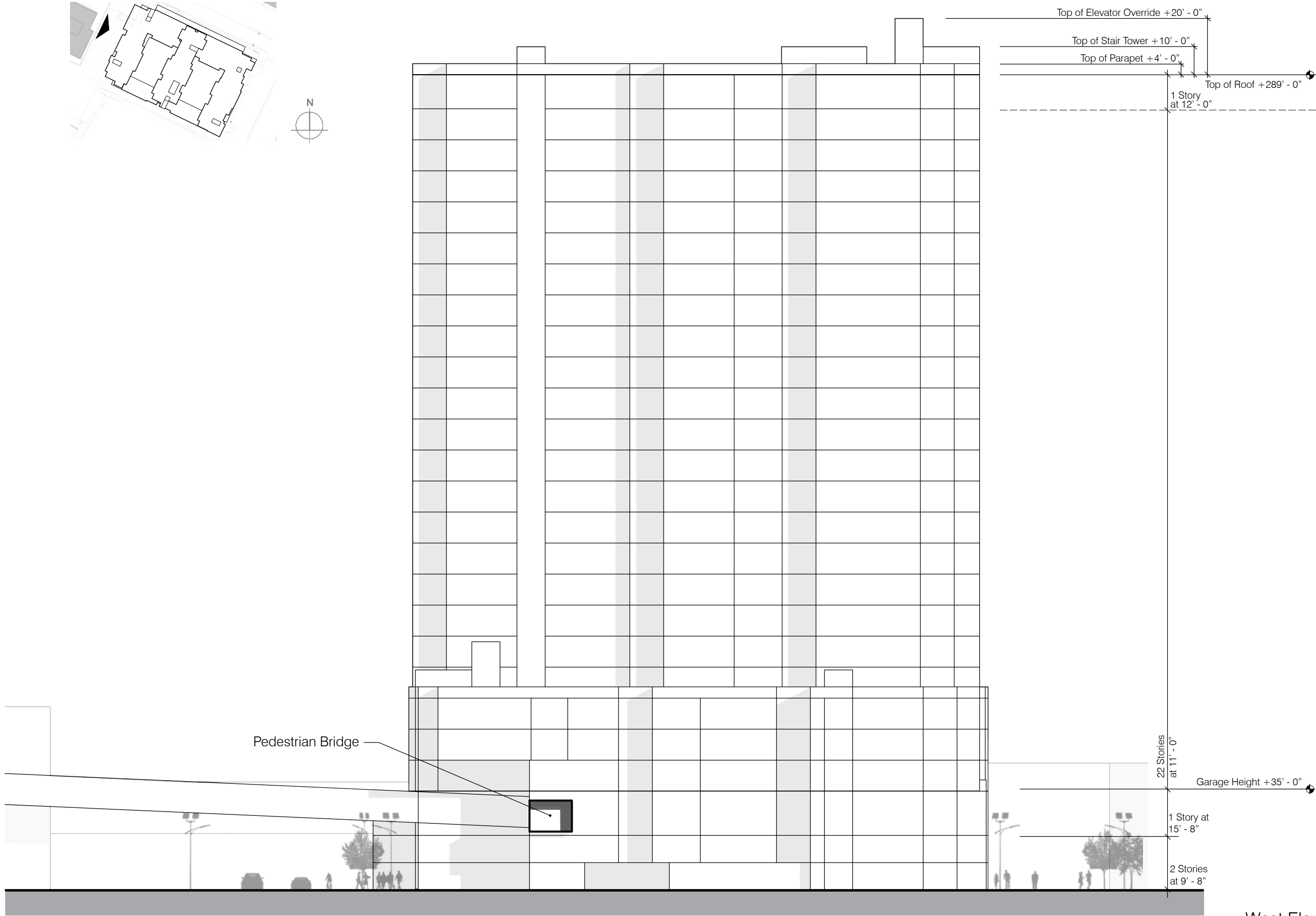
South Elevation



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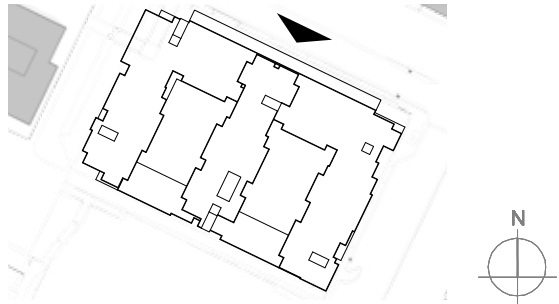
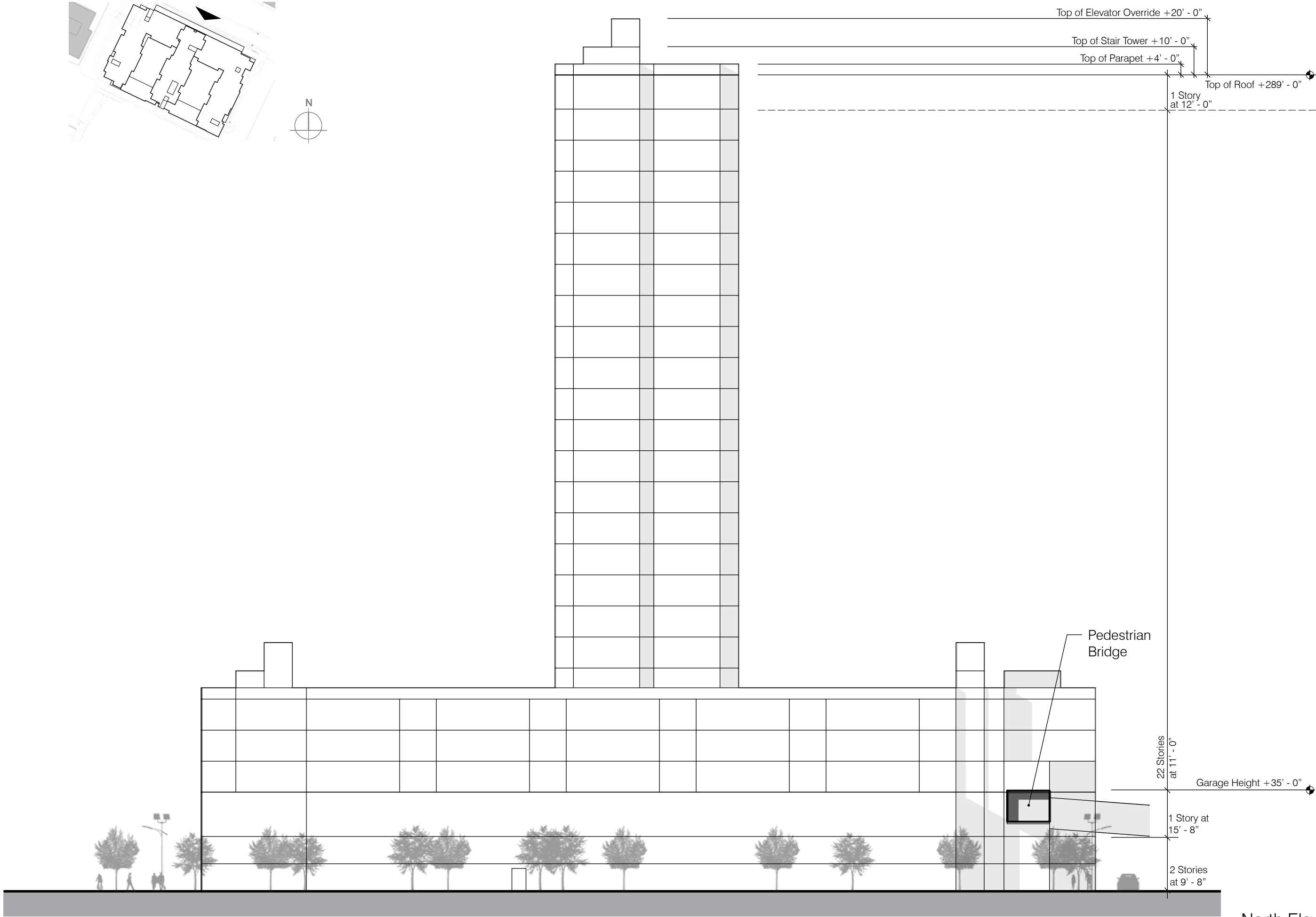
West Elevation

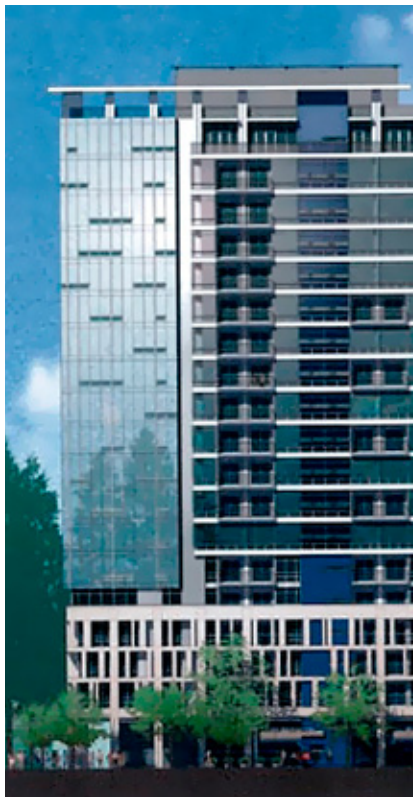


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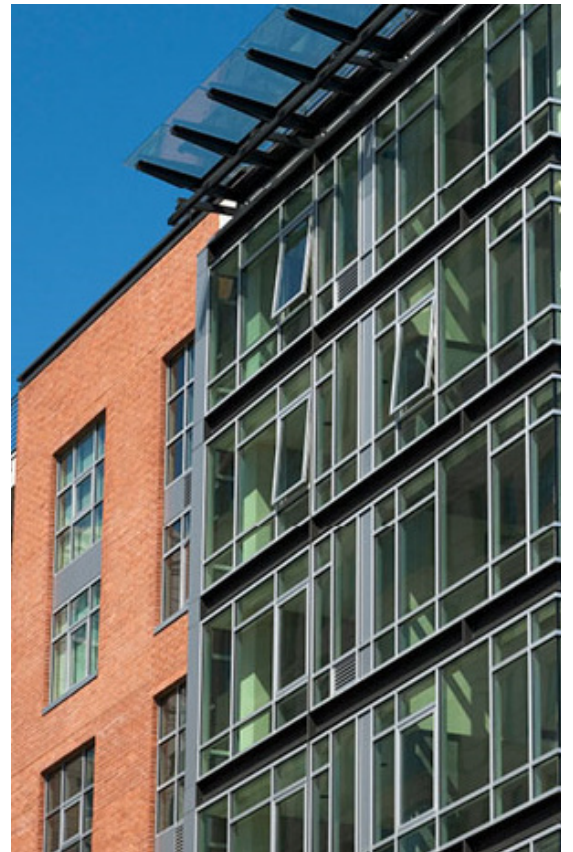
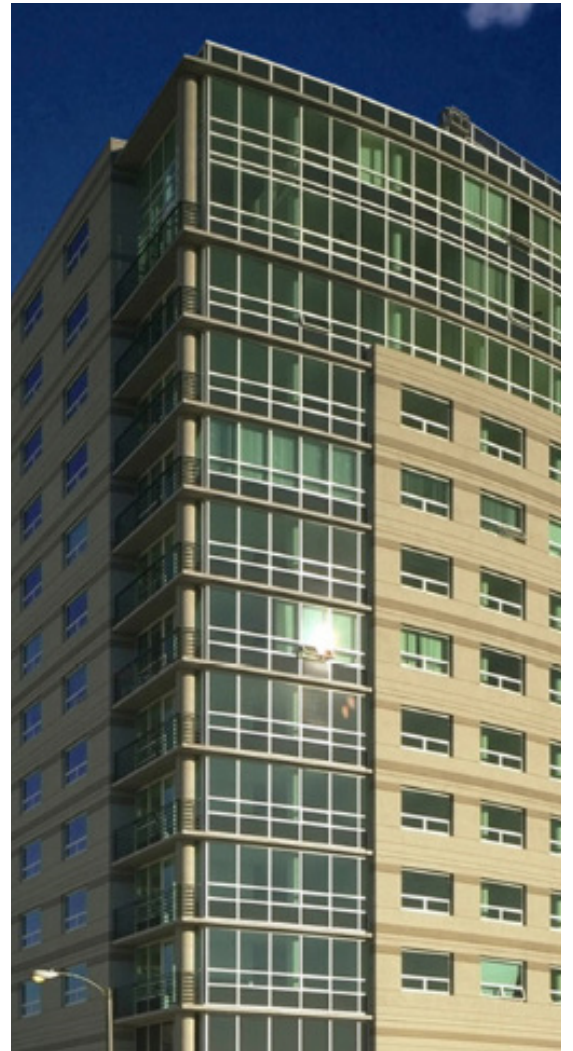
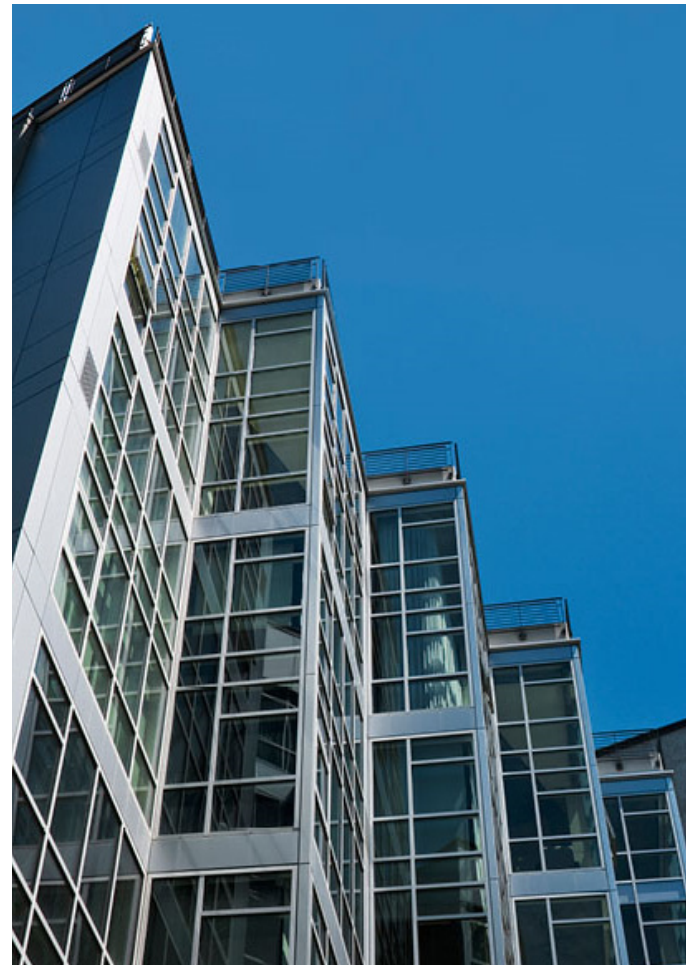
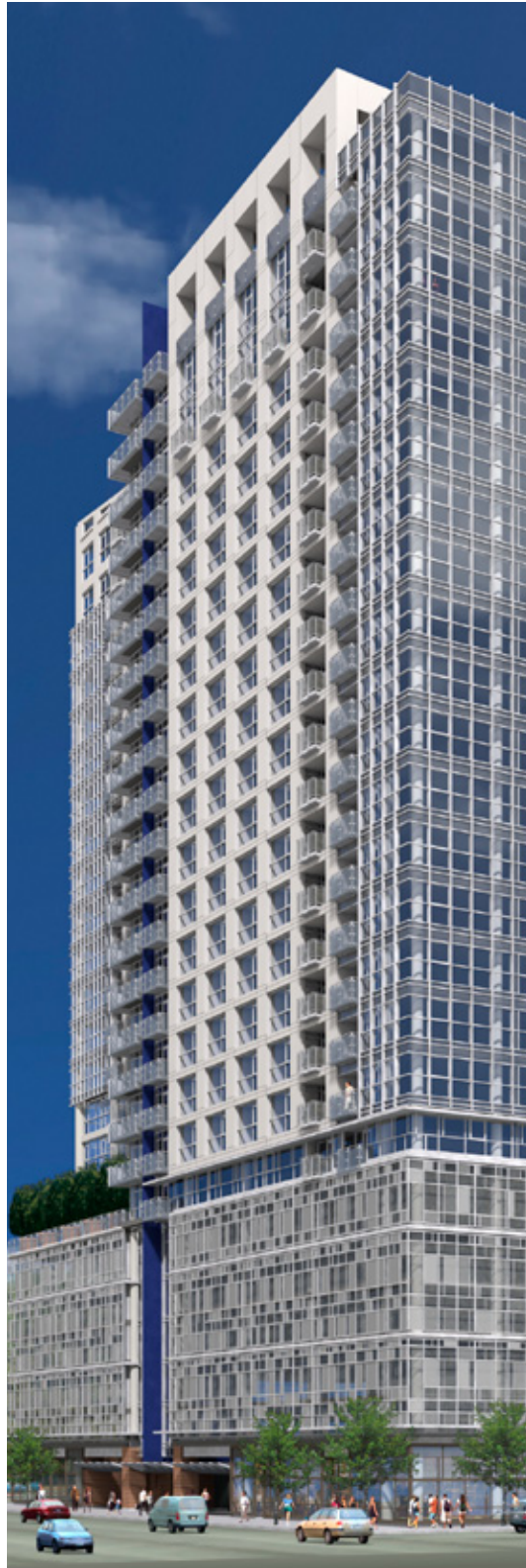
PARCEL F-2

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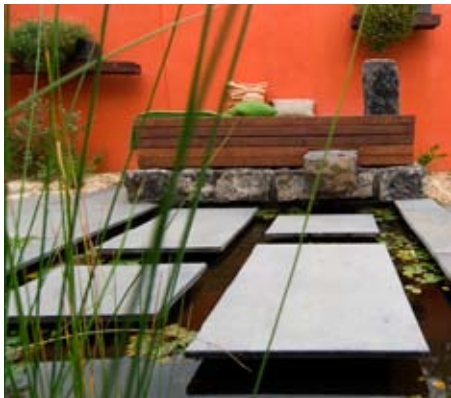
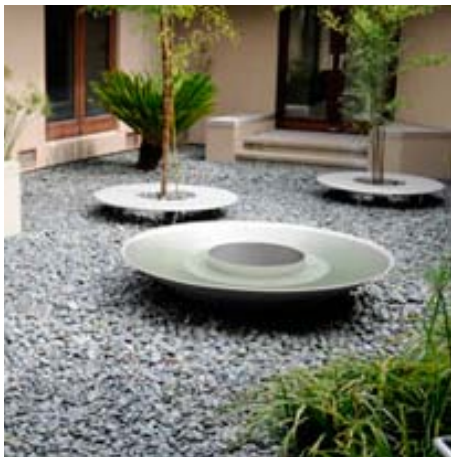


Colors, Finishes and Materials to be selected during FDP Phase



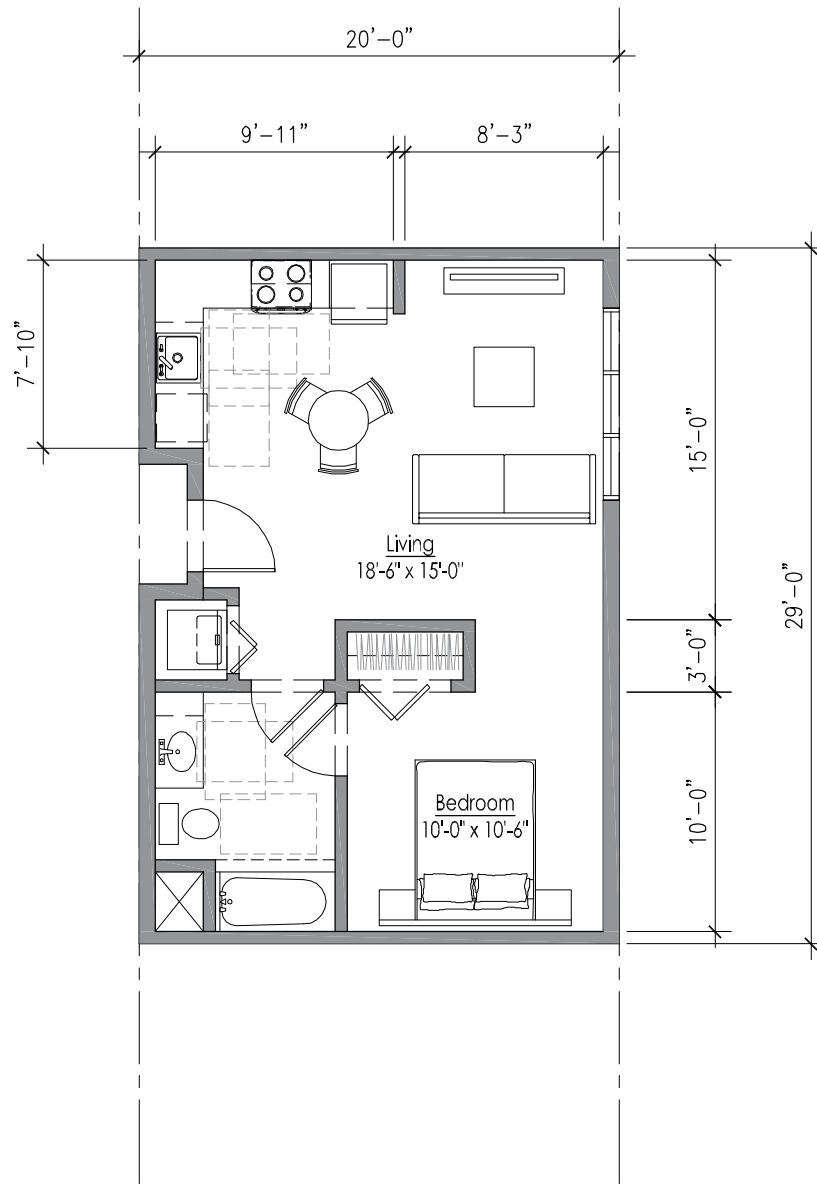


Existing Landscape and Lighting



Amenity, Landscape and Lighting Study





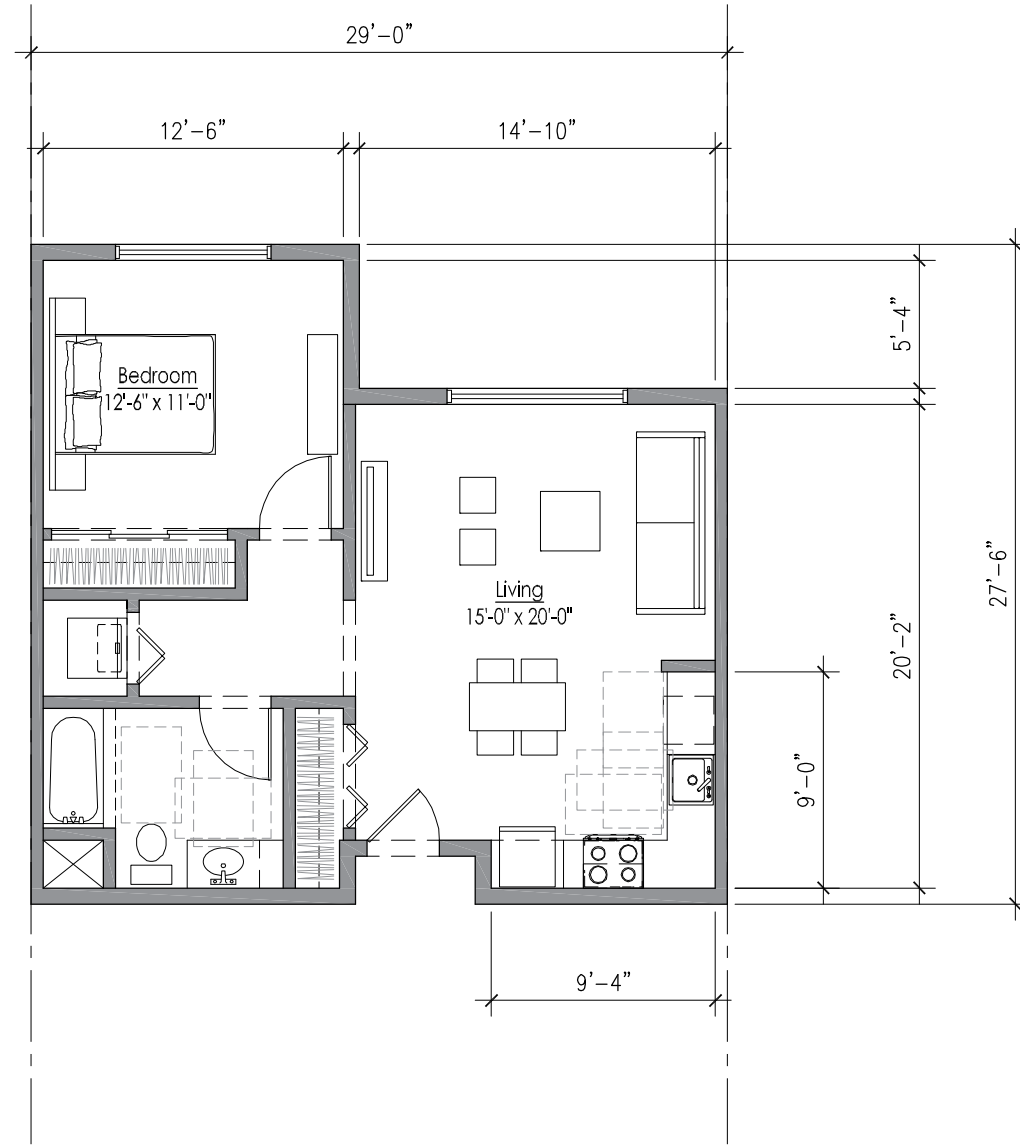
Unit A - Junior One Bed/One Bath



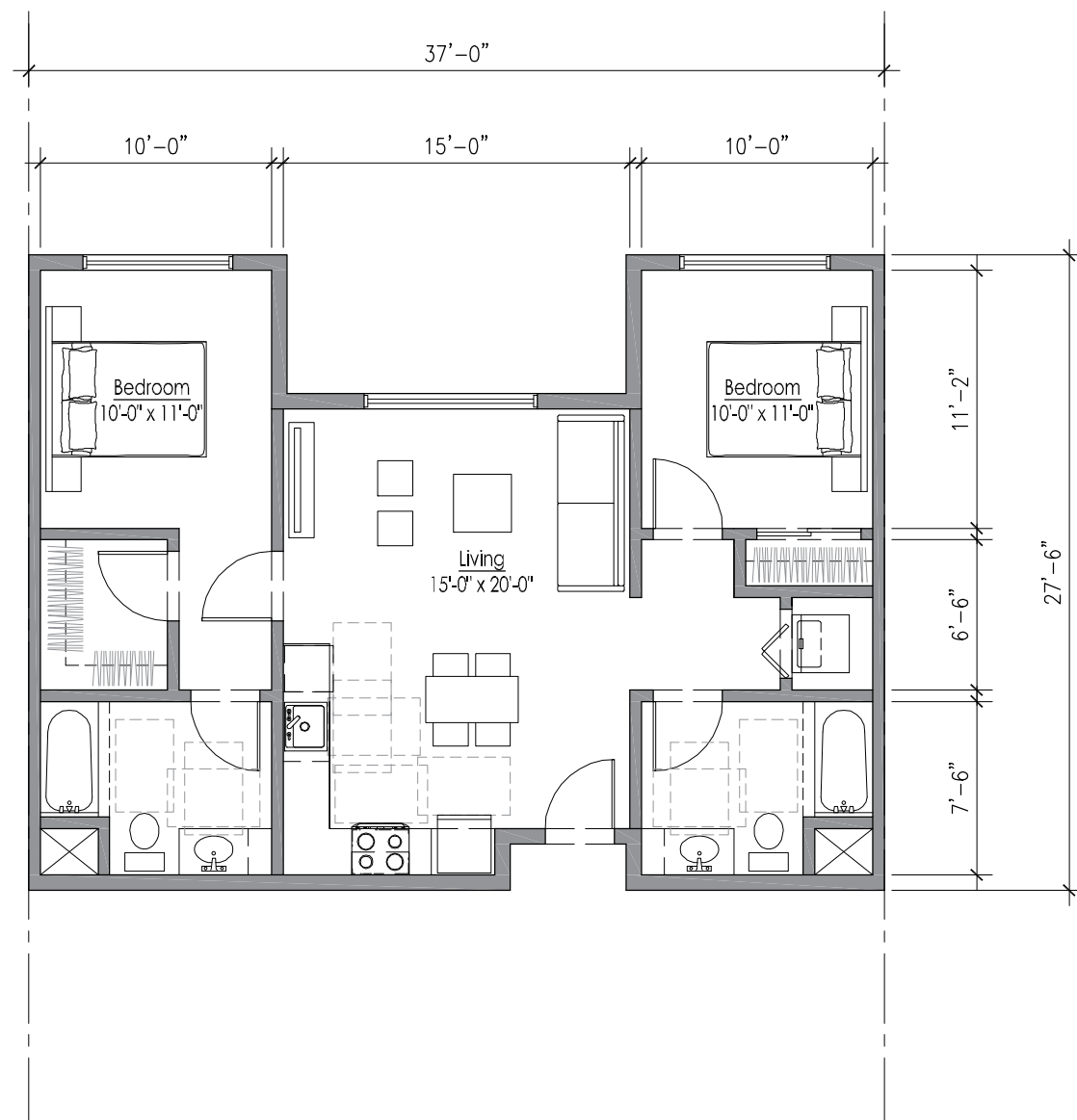
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PARCEL F-2

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Unit B - One Bed/One Bath



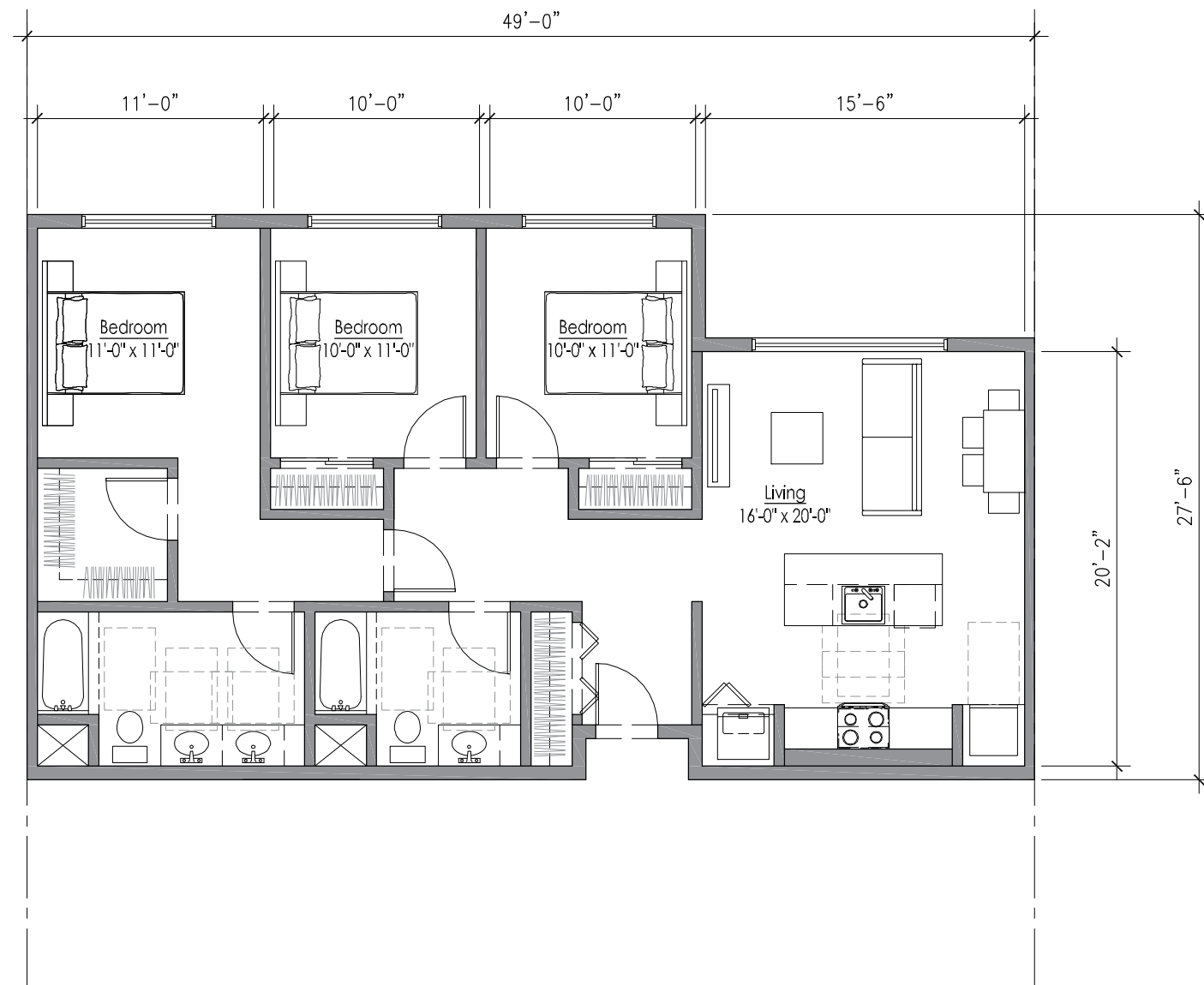
Unit C - Two Bed/Two Bath



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PARCEL F-2

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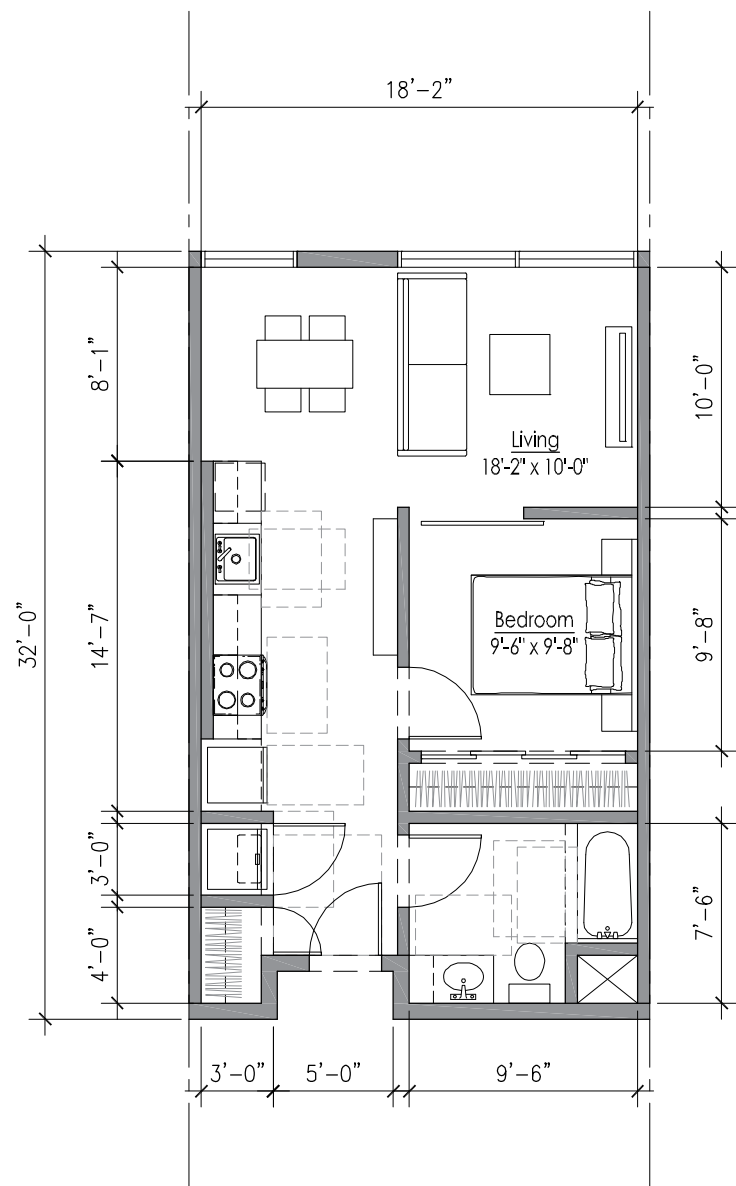
Unit D - Three Bed/Two Bath



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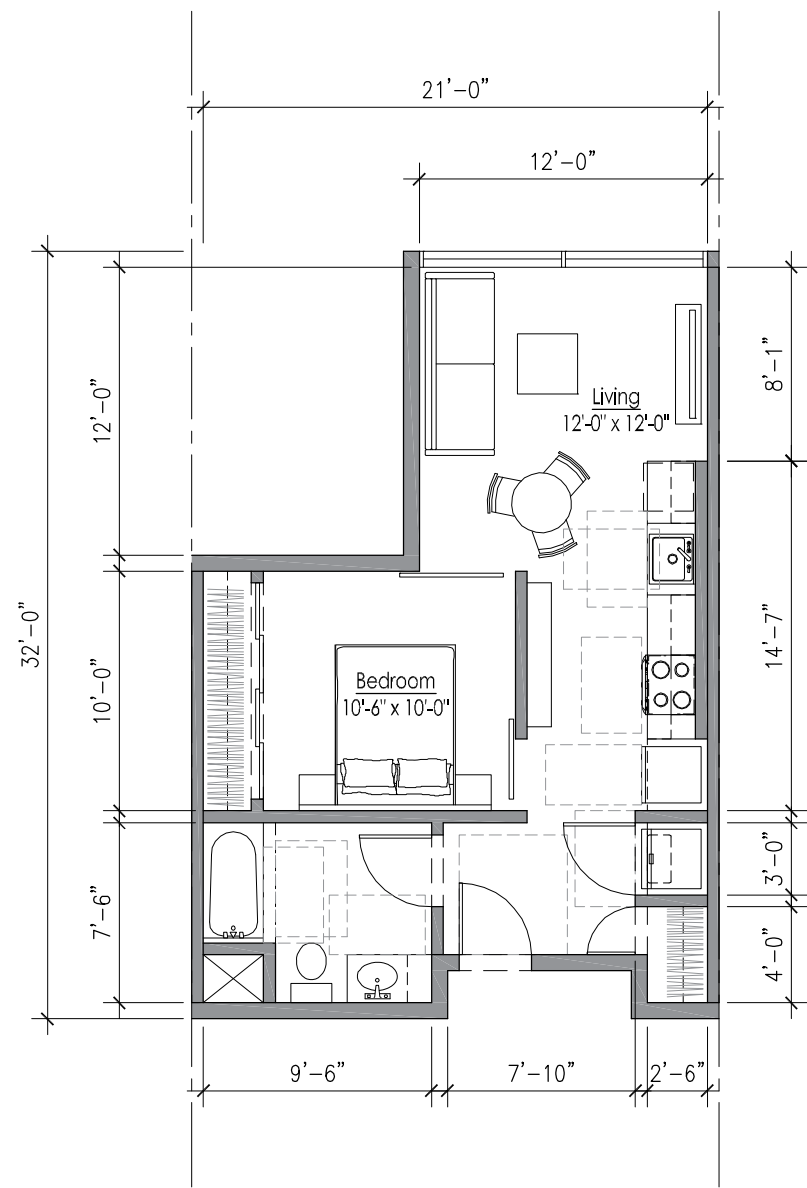
Unit E - Junior One Bed/One Bath



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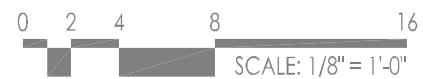
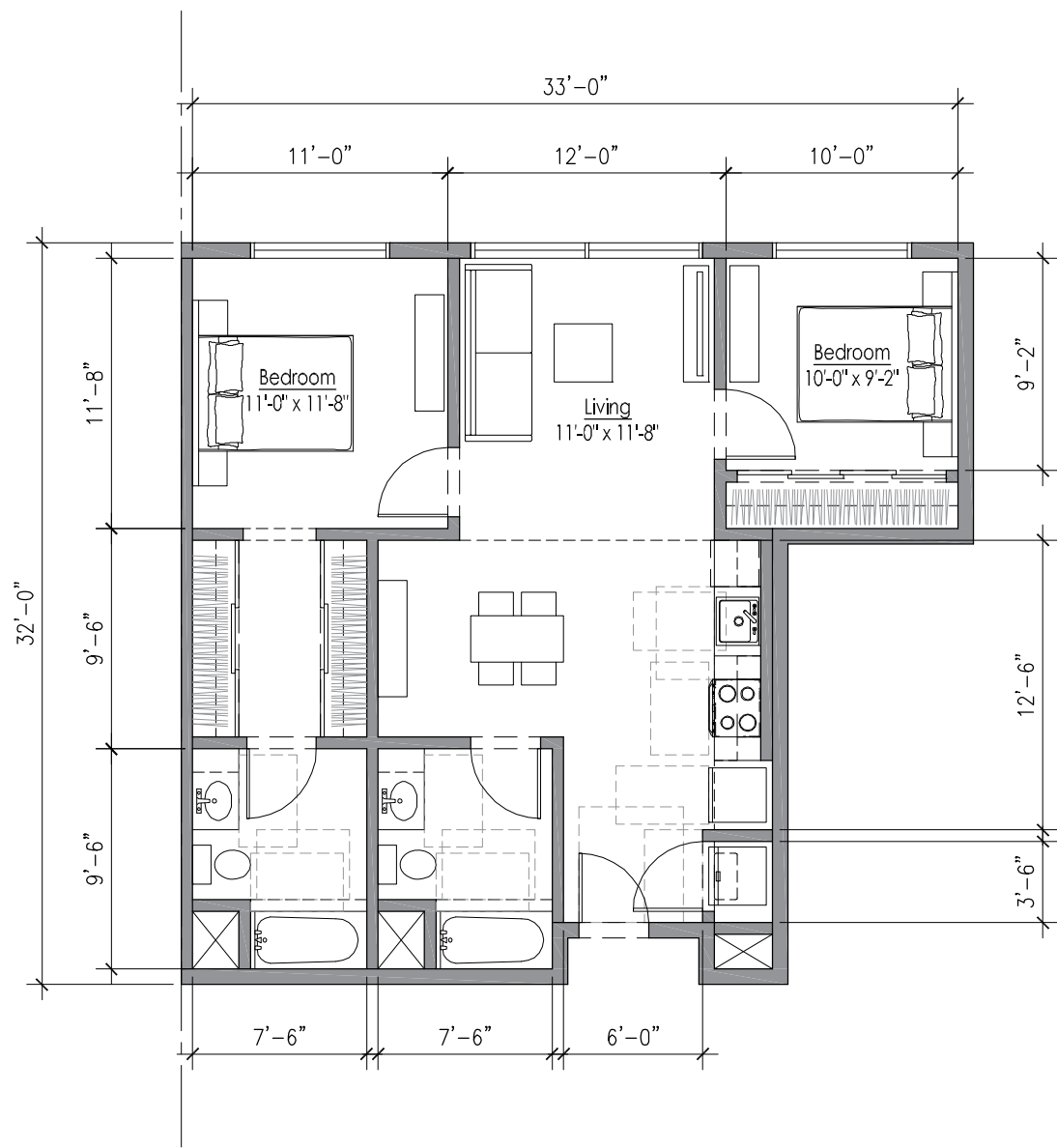
PARCEL F-2

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Unit F - Junior One Bed/One Bath





Unit G - Two Bed/Two Bath



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APPENDIX B

Transportation and Circulation

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY					SURVEY DATE: 1/15/2013					DAY: TUESDAY				
N-S APPROACH: MARKET STREET					SURVEY TIME: 7:00 AM					TO 9:00 AM				
E-W APPROACH: 3RD STREET					JURISDICTION: OAKLAND					FILE: 3301002-1AM				

PEAK HOUR
7:30 AM to 8:30 AM

NORTH

3RD STREET

MARKET STREET

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.78

177 60

PHF = 0.95

334 235

117 105

PHF = 0.89

84 54

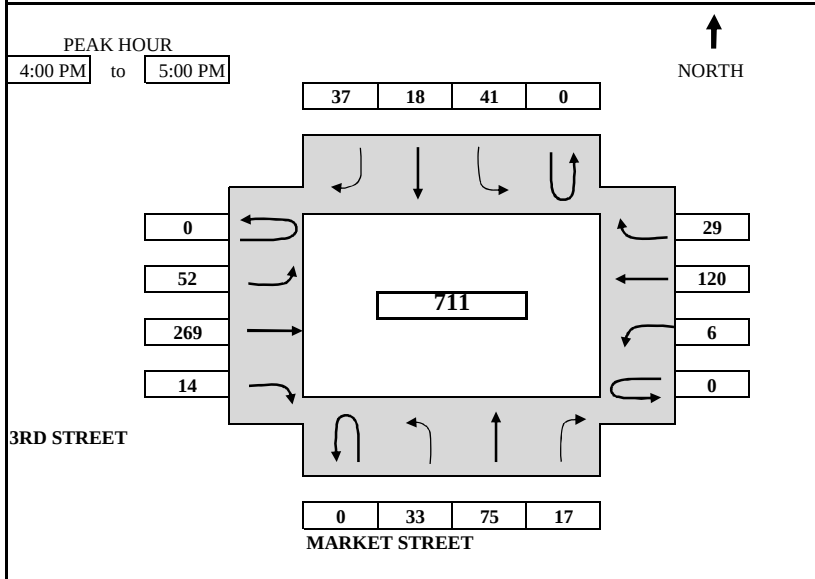
PHF = 0.84

TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM	5	2	1		0	5	7	18	3	21	4		2	45	5		118
7:15 AM	to 7:30 AM	7	2	2		0	11	11	30	3	38	7		3	82	9		205
7:30 AM	to 7:45 AM	18	5	3		1	14	40	54	7	56	13		5	135	14		365
7:45 AM	to 8:00 AM	30	9	3		1	21	46	80	13	66	21		9	187	20		506
8:00 AM	to 8:15 AM	41	11	4		1	33	53	106	20	88	24		12	231	30		654
8:15 AM	to 8:30 AM	48	12	5		1	40	65	123	27	111	27		13	282	34		788
8:30 AM	to 8:45 AM	52	18	7		3	47	74	135	32	131	31		14	330	36		910
8:45 AM	to 9:00 AM	61	21	7		3	55	80	148	35	149	35		16	394	39		1043
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	5	2	1	0	5	7	18	0	3	21	4	0	2	45	5	118
7:15 AM	to 7:30 AM	0	2	0	1	0	6	4	12	0	0	17	3	0	1	37	4	87
7:30 AM	to 7:45 AM	0	11	3	1	1	3	29	24	0	4	18	6	0	2	53	5	160
7:45 AM	to 8:00 AM	0	12	4	0	0	7	6	26	0	6	10	8	0	4	52	6	141
8:00 AM	to 8:15 AM	0	11	2	1	0	12	7	26	0	7	22	3	0	3	44	10	148
8:15 AM	to 8:30 AM	0	7	1	1	0	7	12	17	0	7	23	3	0	1	51	4	134
8:30 AM	to 8:45 AM	0	4	6	2	2	7	9	12	0	5	20	4	0	1	48	2	122
8:45 AM	to 9:00 AM	0	9	3	0	0	8	6	13	0	3	18	4	0	2	64	3	133
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	30	9	3	1	21	46	80	0	13	66	21	0	9	187	20	506
7:15 AM	to 8:15 AM	0	36	9	3	1	28	46	88	0	17	67	20	0	10	186	25	536
7:30 AM	to 8:30 AM	0	41	10	3	1	29	54	93	0	24	73	20	0	10	200	25	583
7:45 AM	to 8:45 AM	0	34	13	4	2	33	34	81	0	25	75	18	0	9	195	22	545
8:00 AM	to 9:00 AM	0	31	12	4	2	34	34	68	0	22	83	14	0	7	207	19	537
PEAK HOUR SUMMARY																		
7:30 AM	to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	41	10	3	1	29	54	93	0	24	73	20	0	10	200	25	583
PHF BY MOVEMENT		0.00	0.85	0.63	0.75	0.25	0.60	0.47	0.89	0.00	0.86	0.79	0.63	0.00	0.63	0.94	0.63	OVERALL
PHF BY APPROACH		0.84				0.78				0.89				0.95				0.91

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH:	MARKET STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	3RD STREET	JURISDICTION:	OAKLAND	FILE:	3301002-1PM



The diagram illustrates a four-way intersection with the following data:

- North Approach:**
 - Arrival Volume: 96
 - Departure Volume: 156
 - PHF: 0.71
- South Approach:**
 - Arrival Volume: 38
 - Departure Volume: 125
 - PHF: 0.87
- East Approach:**
 - Arrival Volume: 155
 - Departure Volume: 327
 - PHF: 0.90
- West Approach:**
 - Arrival Volume: 190
 - Departure Volume: 335
 - PHF: 0.86

Arrows indicate the direction of traffic flow for each approach.

TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To		U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
4:00 PM	to	4:15 PM	12	23	1	15	10	9	11	48	7	1	32	7	176				
4:15 PM	to	4:30 PM	13	45	4	24	11	16	29	116	9	1	61	12	341				
4:30 PM	to	4:45 PM	24	57	12	34	16	25	44	197	10	4	91	22	536				
4:45 PM	to	5:00 PM	33	75	17	41	18	37	52	269	14	6	120	29	711				
5:00 PM	to	5:15 PM	35	77	20	53	21	44	61	339	15	7	168	36	876				
5:15 PM	to	5:30 PM	37	82	23	61	27	50	76	392	16	9	192	45	1010				
5:30 PM	to	5:45 PM	38	83	23	70	30	50	87	454	17	11	226	59	1148				
5:45 PM	to	6:00 PM	40	87	24	72	34	54	90	503	25	14	262	65	1270				

TOTAL BY PERIOD																			
4:00 PM	to	4:15 PM	0	12	23	1	0	15	10	9	0	11	48	7	0	1	32	7	176
4:15 PM	to	4:30 PM	0	1	22	3	0	9	1	7	0	18	68	2	0	0	29	5	165
4:30 PM	to	4:45 PM	0	11	12	8	0	10	5	9	0	15	81	1	0	3	30	10	195
4:45 PM	to	5:00 PM	0	9	18	5	0	7	2	12	0	8	72	4	0	2	29	7	175
5:00 PM	to	5:15 PM	0	2	2	3	0	12	3	7	0	9	70	1	0	1	48	7	165
5:15 PM	to	5:30 PM	0	2	5	3	0	8	6	6	0	15	53	1	0	2	24	9	134
5:30 PM	to	5:45 PM	0	1	1	0	0	9	3	0	0	11	62	1	0	2	34	14	138
5:45 PM	to	6:00 PM	0	2	4	1	0	2	4	4	0	3	49	8	0	3	36	6	122

HOURLY TOTALS																			
4:00 PM	to	5:00 PM	0	33	75	17	0	41	18	37	0	52	269	14	0	6	120	29	711
4:15 PM	to	5:15 PM	0	23	54	19	0	38	11	35	0	50	291	8	0	6	136	29	700
4:30 PM	to	5:30 PM	0	24	37	19	0	37	16	34	0	47	276	7	0	8	131	33	669
4:45 PM	to	5:45 PM	0	14	26	11	0	36	14	25	0	43	257	7	0	7	135	37	612
5:00 PM	to	6:00 PM	0	7	12	7	0	31	16	17	0	38	234	11	0	8	142	36	559

PEAK HOUR SUMMARY																			
4:00 PM to 5:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL		
VOLUME	0	33	75	17	0	41	18	37	0	52	269	14	0	6	120	29	711		
PHF BY MOVEMENT	0.00	0.69	0.82	0.53	0.00	0.68	0.45	0.77	0.00	0.72	0.83	0.50	0.00	0.50	0.94	0.73	OVERALL		
PHF BY APPROACH	0.87				0.71				0.86				0.90				0.91		

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY				SURVEY DATE: 1/15/2013				DAY: TUESDAY			
N-S APPROACH: MARKET STREET				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH: 5TH STREET				JURISDICTION: OAKLAND				FILE: 3301002-2AM			

PEAK HOUR 7:30 AM to 8:30 AM				ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF			

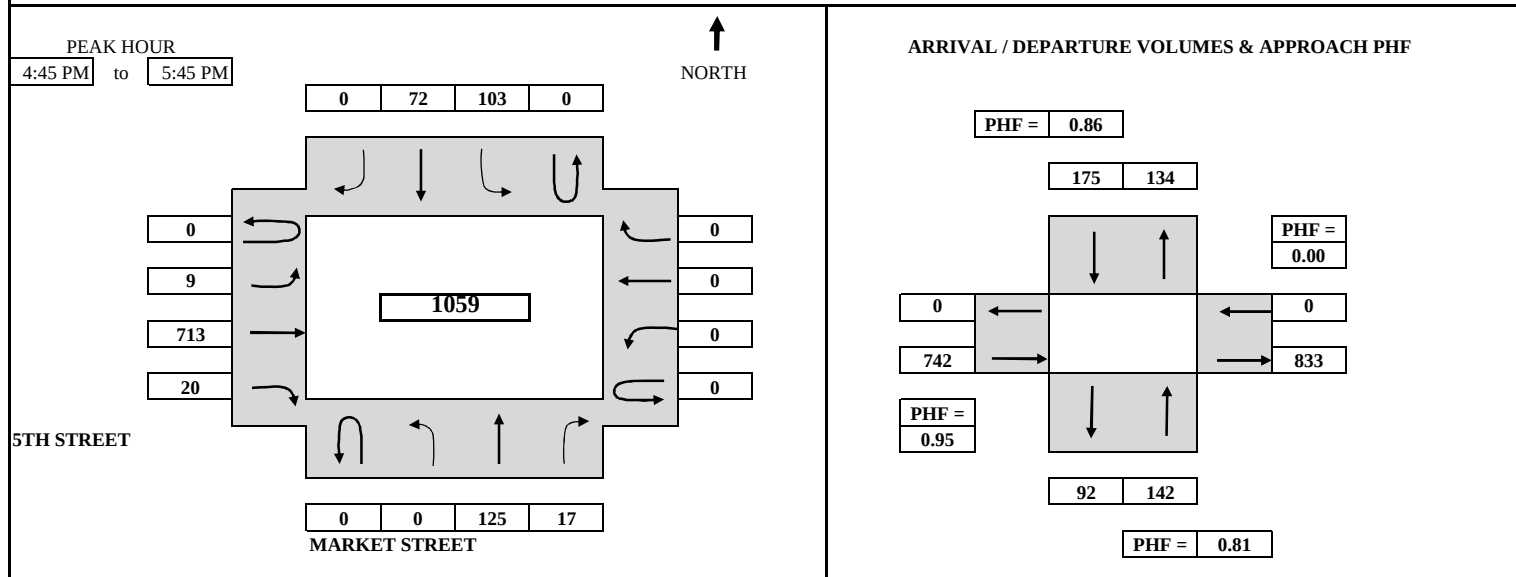
TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM		7	4		2	15	43		3	133	10						217
7:15 AM	to 7:30 AM		13	4		5	27	71		7	242	15						384
7:30 AM	to 7:45 AM		21	9		5	41	129		9	396	24						634
7:45 AM	to 8:00 AM		39	13		7	51	166		12	513	33						834
8:00 AM	to 8:15 AM		55	16		7	65	203		15	624	40						1025
8:15 AM	to 8:30 AM		66	21		9	75	238		17	775	44						1245
8:30 AM	to 8:45 AM		78	24		9	88	263		18	882	49						1411
8:45 AM	to 9:00 AM		88	27		9	93	297		19	1040	58						1631
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	7	4	2	15	43	0	0	3	133	10	0	0	0	0	217
7:15 AM	to 7:30 AM	0	0	6	0	3	12	28	0	0	4	109	5	0	0	0	0	167
7:30 AM	to 7:45 AM	0	0	8	5	0	14	58	0	0	2	154	9	0	0	0	0	250
7:45 AM	to 8:00 AM	0	0	18	4	2	10	37	0	0	3	117	9	0	0	0	0	200
8:00 AM	to 8:15 AM	0	0	16	3	0	14	37	0	0	3	111	7	0	0	0	0	191
8:15 AM	to 8:30 AM	0	0	11	5	2	10	35	0	0	2	151	4	0	0	0	0	220
8:30 AM	to 8:45 AM	0	0	12	3	0	13	25	0	0	1	107	5	0	0	0	0	166
8:45 AM	to 9:00 AM	0	0	10	3	0	5	34	0	0	1	158	9	0	0	0	0	220
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	39	13	7	51	166	0	0	12	513	33	0	0	0	0	834
7:15 AM	to 8:15 AM	0	0	48	12	5	50	160	0	0	12	491	30	0	0	0	0	808
7:30 AM	to 8:30 AM	0	0	53	17	4	48	167	0	0	10	533	29	0	0	0	0	861
7:45 AM	to 8:45 AM	0	0	57	15	4	47	134	0	0	9	486	25	0	0	0	0	777
8:00 AM	to 9:00 AM	0	0	49	14	2	42	131	0	0	7	527	25	0	0	0	0	797
PEAK HOUR SUMMARY																		
7:30 AM	to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	53	17	4	48	167	0	0	10	533	29	0	0	0	0	861
PHF BY MOVEMENT		0.00	0.00	0.74	0.85	0.50	0.86	0.72	0.00	0.00	0.83	0.87	0.81	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.80				0.76				0.87				0.00				0.86

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH:	MARKET STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	5TH STREET	JURISDICTION:	OAKLAND	FILE:	3301002-2PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM			22	5			16	25			4	110	5				187
4:15 PM	to 4:30 PM			51	9			47	37			5	206	12				367
4:30 PM	to 4:45 PM			94	19			82	56			10	348	14				623
4:45 PM	to 5:00 PM			134	23			110	79			11	526	18				901
5:00 PM	to 5:15 PM			164	31			141	95			12	712	22				1177
5:15 PM	to 5:30 PM			188	34			163	111			18	869	31				1414
5:30 PM	to 5:45 PM			219	36			185	128			19	1061	34				1682
5:45 PM	to 6:00 PM			233	36			204	135			19	1244	38				1909
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	22	5	0	16	25	0	0	4	110	5	0	0	0	0	187
4:15 PM	to 4:30 PM	0	0	29	4	0	31	12	0	0	1	96	7	0	0	0	0	180
4:30 PM	to 4:45 PM	0	0	43	10	0	35	19	0	0	5	142	2	0	0	0	0	256
4:45 PM	to 5:00 PM	0	0	40	4	0	28	23	0	0	1	178	4	0	0	0	0	278
5:00 PM	to 5:15 PM	0	0	30	8	0	31	16	0	0	1	186	4	0	0	0	0	276
5:15 PM	to 5:30 PM	0	0	24	3	0	22	16	0	0	6	157	9	0	0	0	0	237
5:30 PM	to 5:45 PM	0	0	31	2	0	22	17	0	0	1	192	3	0	0	0	0	268
5:45 PM	to 6:00 PM	0	0	14	0	0	19	7	0	0	0	183	4	0	0	0	0	227
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	134	23	0	110	79	0	0	11	526	18	0	0	0	0	901
4:15 PM	to 5:15 PM	0	0	142	26	0	125	70	0	0	8	602	17	0	0	0	0	990
4:30 PM	to 5:30 PM	0	0	137	25	0	116	74	0	0	13	663	19	0	0	0	0	1047
4:45 PM	to 5:45 PM	0	0	125	17	0	103	72	0	0	9	713	20	0	0	0	0	1059
5:00 PM	to 6:00 PM	0	0	99	13	0	94	56	0	0	8	718	20	0	0	0	0	1008
PEAK HOUR SUMMARY																		
4:45 PM	to 5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
		0	0	125	17	0	103	72	0	0	9	713	20	0	0	0	0	1059
PHF BY MOVEMENT		0.00	0.00	0.78	0.53	0.00	0.83	0.78	0.00	0.00	0.38	0.93	0.56	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.81				0.86				0.95				0.00				0.95

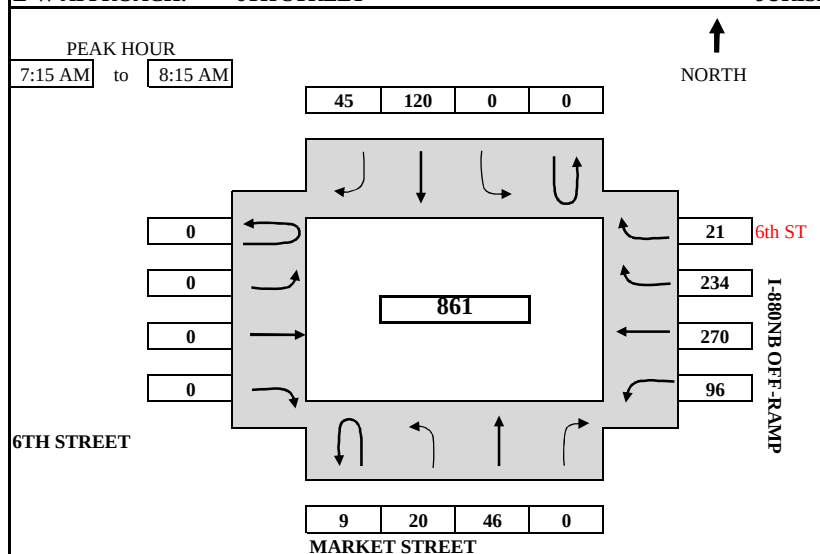
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	MARKET STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-1AM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF =	0.84
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165	301
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↓	↑
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PHF =	0.95
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←	→
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←	→
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335	621
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0	0
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PHF =	0.00
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225	75
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PHF =	0.85
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TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	6th ST	

SURVEY DATA																		
7:00 AM	to	7:15 AM	2	3	8			33	4					21	63	56	3	193
7:15 AM	to	7:30 AM	7	8	18			67	14					48	141	111	7	421
7:30 AM	to	7:45 AM	9	15	26			93	17					66	214	170	15	625
7:45 AM	to	8:00 AM	10	18	44			124	35					92	281	231	18	853
8:00 AM	to	8:15 AM	11	23	54			153	49					117	333	290	24	1054
8:15 AM	to	8:30 AM	11	27	66			174	56					141	384	347	29	1235
8:30 AM	to	8:45 AM	12	30	77			206	66					162	450	391	37	1431
8:45 AM	to	9:00 AM	13	35	87			227	78					182	507	421	46	1596

							TOTAL BY PERIOD												
7:00 AM	to	7:15 AM	2	3	8	0	0	0	33	4	0	0	0	0	21	63	56	3	193
7:15 AM	to	7:30 AM	5	5	10	0	0	0	34	10	0	0	0	0	27	78	55	4	228
7:30 AM	to	7:45 AM	2	7	8	0	0	0	26	3	0	0	0	0	18	73	59	8	204
7:45 AM	to	8:00 AM	1	3	18	0	0	0	31	18	0	0	0	0	26	67	61	3	228
8:00 AM	to	8:15 AM	1	5	10	0	0	0	29	14	0	0	0	0	25	52	59	6	201
8:15 AM	to	8:30 AM	0	4	12	0	0	0	21	7	0	0	0	0	24	51	57	5	181
8:30 AM	to	8:45 AM	1	3	11	0	0	0	32	10	0	0	0	0	21	66	44	8	196
8:45 AM	to	9:00 AM	1	5	10	0	0	0	21	12	0	0	0	0	20	57	30	9	165

							HOURLY TOTALS												
7:00 AM	to	8:00 AM	10	18	44	0	0	0	124	35	0	0	0	0	92	281	231	18	853
7:15 AM	to	8:15 AM	9	20	46	0	0	0	120	45	0	0	0	0	96	270	234	21	861
7:30 AM	to	8:30 AM	4	19	48	0	0	0	107	42	0	0	0	0	93	243	236	22	814
7:45 AM	to	8:45 AM	3	15	51	0	0	0	113	49	0	0	0	0	96	236	221	22	806
8:00 AM	to	9:00 AM	3	17	43	0	0	0	103	43	0	0	0	0	90	226	190	28	743

PEAK HOUR SUMMARY																			
7:15 AM	to	8:15 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME			9	20	46	0	0	0	120	45	0	0	0	0	96	270	234	21	861
PHF BY MOVEMENT			0.45	0.71	0.64	0.00	0.00	0.00	0.88	0.63	0.00	0.00	0.00	0.00	0.89	0.87	0.96	0.66	OVERALL
PHF BY APPROACH			0.85				0.84				0.00				0.95				0.94

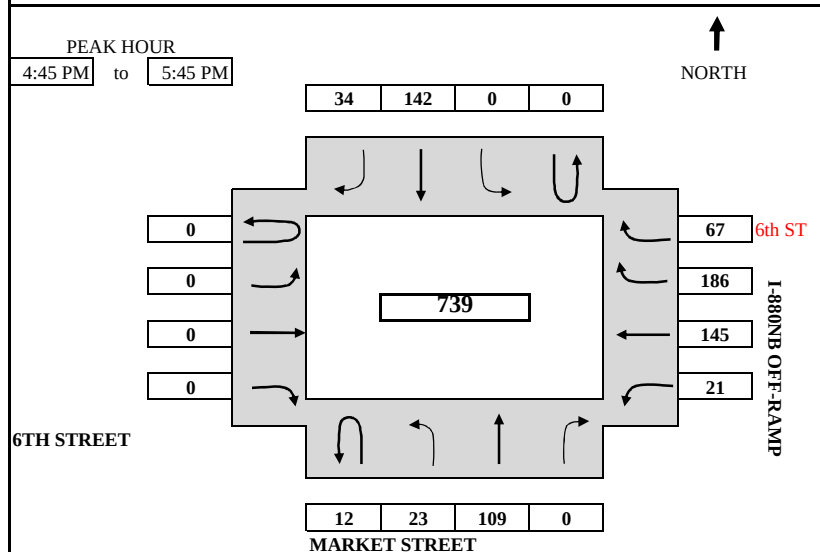
TEL: (510) 232 - 1271

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B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	MARKET STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-1PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF =	0.86
176	362
PHF =	0.94
202	419
0	0
PHF =	0.00
175	144
PHF =	0.72

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	6th St	

SURVEY DATA																		
4:00 PM	to	4:15 PM	7	10	19			34	12					17	39	40	6	184
4:15 PM	to	4:30 PM	12	18	44			74	22					25	73	85	18	371
4:30 PM	to	4:45 PM	15	24	66			95	26					31	106	125	39	527
4:45 PM	to	5:00 PM	19	30	91			126	32					44	146	160	63	711
5:00 PM	to	5:15 PM	25	35	130			163	39					46	183	211	74	906
5:15 PM	to	5:30 PM	27	43	148			197	49					49	222	265	89	1089
5:30 PM	to	5:45 PM	27	47	175			237	60					52	251	311	106	1266
5:45 PM	to	6:00 PM	28	51	195			267	66					59	284	358	120	1428

TOTAL BY PERIOD																		
4:00 PM	to	4:15 PM	7	10	19	0	0	34	12	0	0	0	0	17	39	40	6	184
4:15 PM	to	4:30 PM	5	8	25	0	0	40	10	0	0	0	0	8	34	45	12	187
4:30 PM	to	4:45 PM	3	6	22	0	0	21	4	0	0	0	0	6	33	40	21	156
4:45 PM	to	5:00 PM	4	6	25	0	0	31	6	0	0	0	0	13	40	35	24	184
5:00 PM	to	5:15 PM	6	5	39	0	0	37	7	0	0	0	0	2	37	51	11	195
5:15 PM	to	5:30 PM	2	8	18	0	0	34	10	0	0	0	0	3	39	54	15	183
5:30 PM	to	5:45 PM	0	4	27	0	0	40	11	0	0	0	0	3	29	46	17	177
5:45 PM	to	6:00 PM	1	4	20	0	0	30	6	0	0	0	0	7	33	47	14	162

HOURLY TOTALS																		
4:00 PM	to	5:00 PM	19	30	91	0	0	126	32	0	0	0	0	44	146	160	63	711
4:15 PM	to	5:15 PM	18	25	111	0	0	129	27	0	0	0	0	29	144	171	68	722
4:30 PM	to	5:30 PM	15	25	104	0	0	123	27	0	0	0	0	24	149	180	71	718
4:45 PM	to	5:45 PM	12	23	109	0	0	142	34	0	0	0	0	21	145	186	67	739
5:00 PM	to	6:00 PM	9	21	104	0	0	141	34	0	0	0	0	15	138	198	57	717

		PEAK HOUR SUMMARY																	
4:45 PM	to	5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME			12	23	109	0	0	0	142	34	0	0	0	0	21	145	186	67	739
PHF BY MOVEMENT			0.50	0.72	0.70	0.00	0.00	0.00	0.89	0.77	0.00	0.00	0.00	0.00	0.40	0.91	0.86	0.70	OVERALL
PHF BY APPROACH			0.72				0.86				0.00				0.94				0.95

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY					SURVEY DATE: 1/15/2013					DAY: TUESDAY				
N-S APPROACH: MARKET STREET					SURVEY TIME: 7:00 AM					TO 9:00 AM				
E-W APPROACH: 7TH STREET					JURISDICTION: OAKLAND					FILE: 3301002-3AM				

PEAK HOUR
8:00 AM to 9:00 AM

NORTH

7TH STREET

MARKET STREET

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.75

191 225

PHF = 0.88

773 654

339 319

PHF = 0.88

143 276

PHF = 0.86

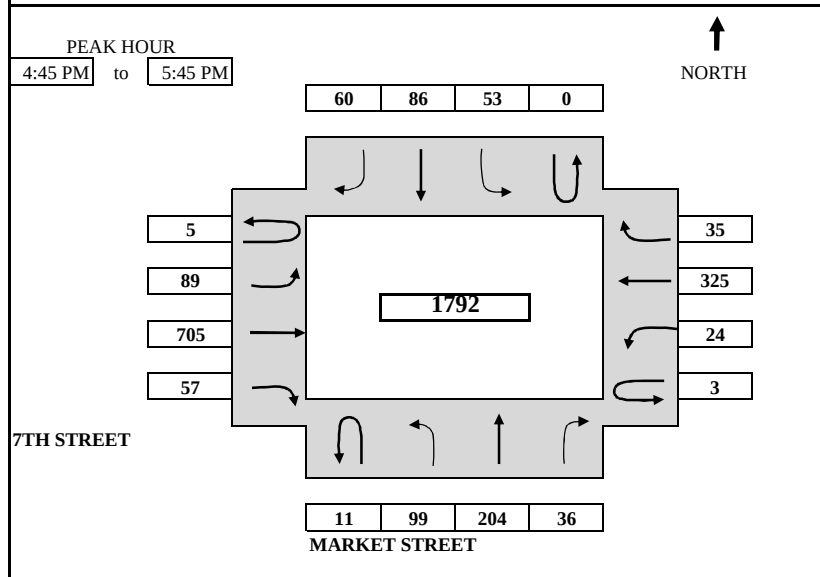
TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM	1	18	43	2	0	7	18	10	2	14	40	5	2	11	89	3	265
7:15 AM	to 7:30 AM	3	42	77	4	0	11	27	23	4	27	79	11	3	20	206	6	543
7:30 AM	to 7:45 AM	5	66	103	10	0	23	51	38	5	40	135	17	4	26	339	12	874
7:45 AM	to 8:00 AM	7	96	145	12	0	38	71	46	5	47	174	26	6	32	456	16	1177
8:00 AM	to 8:15 AM	8	131	185	16	1	48	100	70	6	60	246	36	6	41	608	26	1588
8:15 AM	to 8:30 AM	8	158	216	18	2	57	112	91	6	71	311	43	7	51	774	34	1959
8:30 AM	to 8:45 AM	8	192	256	21	3	68	137	104	6	79	372	49	8	60	909	43	2315
8:45 AM	to 9:00 AM	10	211	291	24	3	75	147	121	7	87	442	55	8	67	1037	52	2637
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	1	18	43	2	0	7	18	10	2	14	40	5	2	11	89	3	265
7:15 AM	to 7:30 AM	2	24	34	2	0	4	9	13	2	13	39	6	1	9	117	3	278
7:30 AM	to 7:45 AM	2	24	26	6	0	12	24	15	1	13	56	6	1	6	133	6	331
7:45 AM	to 8:00 AM	2	30	42	2	0	15	20	8	0	7	39	9	2	6	117	4	303
8:00 AM	to 8:15 AM	1	35	40	4	1	10	29	24	1	13	72	10	0	9	152	10	411
8:15 AM	to 8:30 AM	0	27	31	2	1	9	12	21	0	11	65	7	1	10	166	8	371
8:30 AM	to 8:45 AM	0	34	40	3	1	11	25	13	0	8	61	6	1	9	135	9	356
8:45 AM	to 9:00 AM	2	19	35	3	0	7	10	17	1	8	70	6	0	7	128	9	322
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	7	96	145	12	0	38	71	46	5	47	174	26	6	32	456	16	1177
7:15 AM	to 8:15 AM	7	113	142	14	1	41	82	60	4	46	206	31	4	30	519	23	1323
7:30 AM	to 8:30 AM	5	116	139	14	2	46	85	68	2	44	232	32	4	31	568	28	1416
7:45 AM	to 8:45 AM	3	126	153	11	3	45	86	66	1	39	237	32	4	34	570	31	1441
8:00 AM	to 9:00 AM	3	115	146	12	3	37	76	75	2	40	268	29	2	35	581	36	1460
PEAK HOUR SUMMARY																		
8:00 AM	to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		3	115	146	12	3	37	76	75	2	40	268	29	2	35	581	36	1460
PHF BY MOVEMENT		0.38	0.82	0.91	0.75	0.75	0.84	0.66	0.78	0.50	0.77	0.93	0.73	0.50	0.88	0.88	0.90	OVERALL
PHF BY APPROACH		0.86				0.75				0.88				0.88				0.89

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH:	MARKET STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	7TH STREET	JURISDICTION:	OAKLAND	FILE:	3301002-3PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.92			
199	328		
<table> <tr> <td>↓</td> <td>↑</td> </tr> </table>		↓	↑
↓	↑		
PHF = 0.81			
489	387		
856	797		
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←	→		
PHF = 0.90			
178	350		
<table> <tr> <td>↓</td> <td>↑</td> </tr> </table>		↓	↑
↓	↑		
PHF = 0.85			

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM	5	32	53	6	0	12	18	15	1	19	98	18	0	5	56	6	344
4:15 PM	to 4:30 PM	7	58	92	14	2	24	38	30	2	39	225	36	2	14	123	15	721
4:30 PM	to 4:45 PM	9	75	154	23	3	30	63	43	3	47	332	56	5	19	183	27	1072
4:45 PM	to 5:00 PM	9	101	210	36	3	39	88	58	4	71	470	64	7	25	256	38	1479
5:00 PM	to 5:15 PM	12	121	262	44	3	56	111	72	4	89	646	80	8	30	336	49	1923
5:15 PM	to 5:30 PM	16	143	296	53	3	67	131	86	5	112	843	97	8	39	440	55	2394
5:30 PM	to 5:45 PM	20	174	358	59	3	83	149	103	8	136	1037	113	8	43	508	62	2864
5:45 PM	to 6:00 PM	23	192	406	63	3	91	155	115	8	159	1214	124	8	48	583	71	3263
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	5	32	53	6	0	12	18	15	1	19	98	18	0	5	56	6	344
4:15 PM	to 4:30 PM	2	26	39	8	2	12	20	15	1	20	127	18	2	9	67	9	377
4:30 PM	to 4:45 PM	2	17	62	9	1	6	25	13	1	8	107	20	3	5	60	12	351
4:45 PM	to 5:00 PM	0	26	56	13	0	9	25	15	1	24	138	8	2	6	73	11	407
5:00 PM	to 5:15 PM	3	20	52	8	0	17	23	14	0	18	176	16	1	5	80	11	444
5:15 PM	to 5:30 PM	4	22	34	9	0	11	20	14	1	23	197	17	0	9	104	6	471
5:30 PM	to 5:45 PM	4	31	62	6	0	16	18	17	3	24	194	16	0	4	68	7	470
5:45 PM	to 6:00 PM	3	18	48	4	0	8	6	12	0	23	177	11	0	5	75	9	399
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	9	101	210	36	3	39	88	58	4	71	470	64	7	25	256	38	1479
4:15 PM	to 5:15 PM	7	89	209	38	3	44	93	57	3	70	548	62	8	25	280	43	1579
4:30 PM	to 5:30 PM	9	85	204	39	1	43	93	56	3	73	618	61	6	25	317	40	1673
4:45 PM	to 5:45 PM	11	99	204	36	0	53	86	60	5	89	705	57	3	24	325	35	1792
5:00 PM	to 6:00 PM	14	91	196	27	0	52	67	57	4	88	744	60	1	23	327	33	1784
PEAK HOUR SUMMARY																		
4:45 PM	to 5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		11	99	204	36	0	53	86	60	5	89	705	57	3	24	325	35	1792
PHF BY MOVEMENT		0.69	0.80	0.82	0.69	0.00	0.78	0.86	0.88	0.42	0.93	0.89	0.84	0.38	0.67	0.78	0.80	OVERALL
PHF BY APPROACH		0.85				0.92				0.90				0.81				0.95

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/14/2013				DAY: THURSDAY			
N-S APPROACH: CASTRO STREET				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH 11TH STREET				JURISDICTION: OAKLAND				FILE: 3302018-2AM			

PEAK HOUR
8:00 AM TO 9:00 AM

NORTH ↑

11TH STREET

I-980 NB OFFRAMP

CASTRO STREET

ARRIVAL / DEPARTURE VOLUMES

PHF = 0.00

0 622

PHF = 0.00

0 0

911 858

PHF = 0.90

0 138

0 431

I-980 NB OFFRAMP PHF = 0.96

CASTRO STREET PHF = 0.93

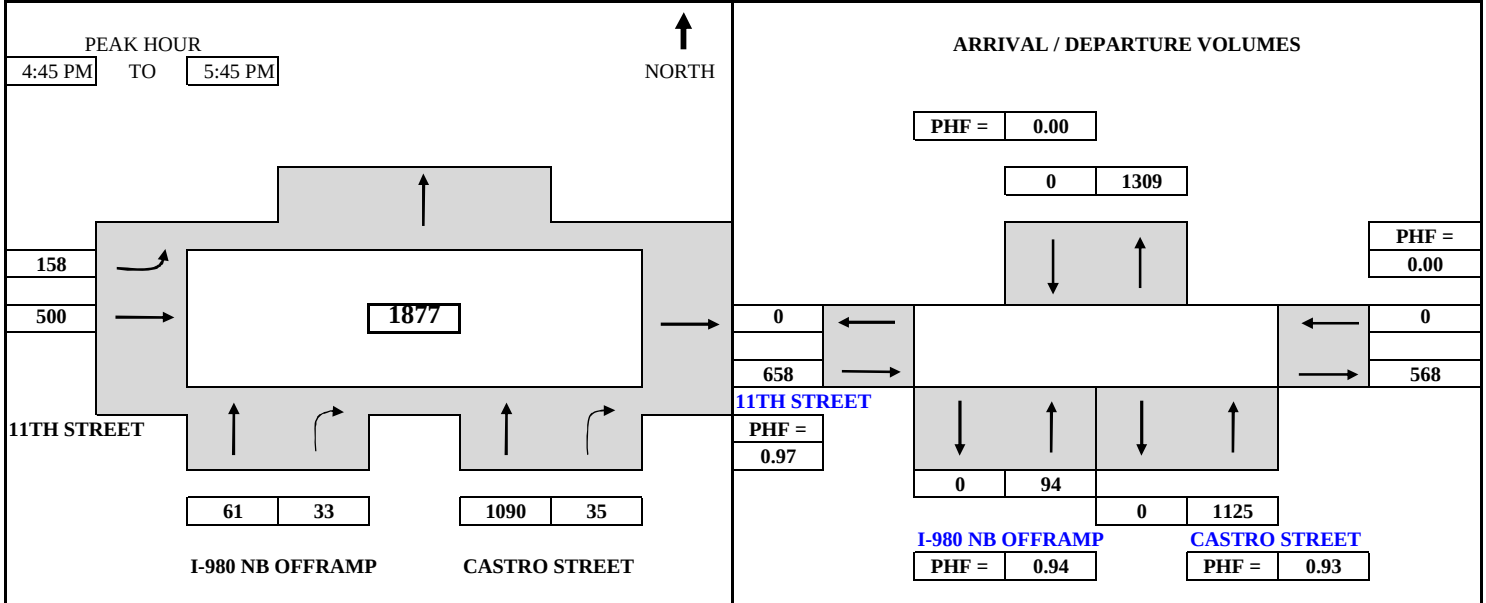
TIME	PERIOD	NB (CASTRO STREET)		NB (I-980 NB OFFRAMP)			EB (11TH STREET)			WB (11TH STREET)			TOTAL	
From	To	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT		
SURVEY DATA														
7:00 AM	to 7:15 AM	77	5	17	9	21	123						252	
7:15 AM	to 7:30 AM	160	9	33	20	38	284						544	
7:30 AM	to 7:45 AM	242	17	47	42	57	451						856	
7:45 AM	to 8:00 AM	337	23	68	60	84	634						1206	
8:00 AM	to 8:15 AM	419	32	87	77	112	813						1540	
8:15 AM	to 8:30 AM	521	39	105	91	155	1024						1935	
8:30 AM	to 8:45 AM	630	45	124	106	192	1221						2318	
8:45 AM	to 9:00 AM	741	50	147	119	223	1406						2686	
TOTAL BY PERIOD														
7:00 AM	to 7:15 AM	0	77	5	0	17	9	21	123	0	0	0	0	252
7:15 AM	to 7:30 AM	0	83	4	0	16	11	17	161	0	0	0	0	292
7:30 AM	to 7:45 AM	0	82	8	0	14	22	19	167	0	0	0	0	312
7:45 AM	to 8:00 AM	0	95	6	0	21	18	27	183	0	0	0	0	350
8:00 AM	to 8:15 AM	0	82	9	0	19	17	28	179	0	0	0	0	334
8:15 AM	to 8:30 AM	0	102	7	0	18	14	43	211	0	0	0	0	395
8:30 AM	to 8:45 AM	0	109	6	0	19	15	37	197	0	0	0	0	383
8:45 AM	to 9:00 AM	0	111	5	0	23	13	31	185	0	0	0	0	368
HOURLY TOTALS														
7:00 AM	to 8:00 AM	0	337	23	0	68	60	84	634	0	0	0	0	1206
7:15 AM	to 8:15 AM	0	342	27	0	70	68	91	690	0	0	0	0	1288
7:30 AM	to 8:30 AM	0	361	30	0	72	71	117	740	0	0	0	0	1391
7:45 AM	to 8:45 AM	0	388	28	0	77	64	135	770	0	0	0	0	1462
8:00 AM	to 9:00 AM	0	404	27	0	79	59	139	772	0	0	0	0	1480
PEAK HOUR SUMMARY														
8:00 AM	to 9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME		0	404	27	0	79	59	139	772	0	0	0	0	1480
PHF BY MOVEMENT		0.00	0.91	0.75	0.00	0.86	0.87	0.81	0.91	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.93			0.96			0.90			0.00			0.94

TEL: (510) 232 - 1271
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B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH: CASTRO STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 11TH STREET		JURISDICTION:	OAKLAND	FILE:	3202018-2PM



TIME	PERIOD	NB (CASTRO STREET)		NB (I-980 NB OFFRAMP)			EB (11TH STREET)			WB (11TH STREET)			TOTAL
From	To	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
4:00 PM	to 4:15 PM	231	9	0	15	6	36	111					408
4:15 PM	to 4:30 PM	480	17	0	28	13	83	218					839
4:30 PM	to 4:45 PM	706	30	0	39	18	134	321					1248
4:45 PM	to 5:00 PM	960	38	0	54	27	182	442					1703
5:00 PM	to 5:15 PM	1257	44	0	71	35	215	579					2201
5:15 PM	to 5:30 PM	1533	54	0	87	42	250	704					2670
5:30 PM	to 5:45 PM	1796	65	0	100	51	292	821					3125
5:45 PM	to 6:00 PM	1993	74	0	122	57	321	926					3493

TOTAL BY PERIOD													
4:00 PM	to 4:15 PM	0	231	9	0	15	6	36	111	0	0	0	408
4:15 PM	to 4:30 PM	0	249	8	0	13	7	47	107	0	0	0	431
4:30 PM	to 4:45 PM	0	226	13	0	11	5	51	103	0	0	0	409
4:45 PM	to 5:00 PM	0	254	8	0	15	9	48	121	0	0	0	455
5:00 PM	to 5:15 PM	0	297	6	0	17	8	33	137	0	0	0	498
5:15 PM	to 5:30 PM	0	276	10	0	16	7	35	125	0	0	0	469
5:30 PM	to 5:45 PM	0	263	11	0	13	9	42	117	0	0	0	455
5:45 PM	to 6:00 PM	0	197	9	0	22	6	29	105	0	0	0	368

HOURLY TOTALS													
4:00 PM	to 5:00 PM	0	960	38	0	54	27	182	442	0	0	0	1703
4:15 PM	to 5:15 PM	0	1026	35	0	56	29	179	468	0	0	0	1793
4:30 PM	to 5:30 PM	0	1053	37	0	59	29	167	486	0	0	0	1831
4:45 PM	to 5:45 PM	0	1090	35	0	61	33	158	500	0	0	0	1877
5:00 PM	to 6:00 PM	0	1033	36	0	68	30	139	484	0	0	0	1790

PEAK HOUR SUMMARY															
4:45 PM	to	5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	1090	35	0	61	33	158	500	0	0	0	0	1877
PHF BY MOVEMENT			0.00	0.92	0.80	0.00	0.90	0.92	0.82	0.91	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.93			0.94			0.97			0.00			0.94

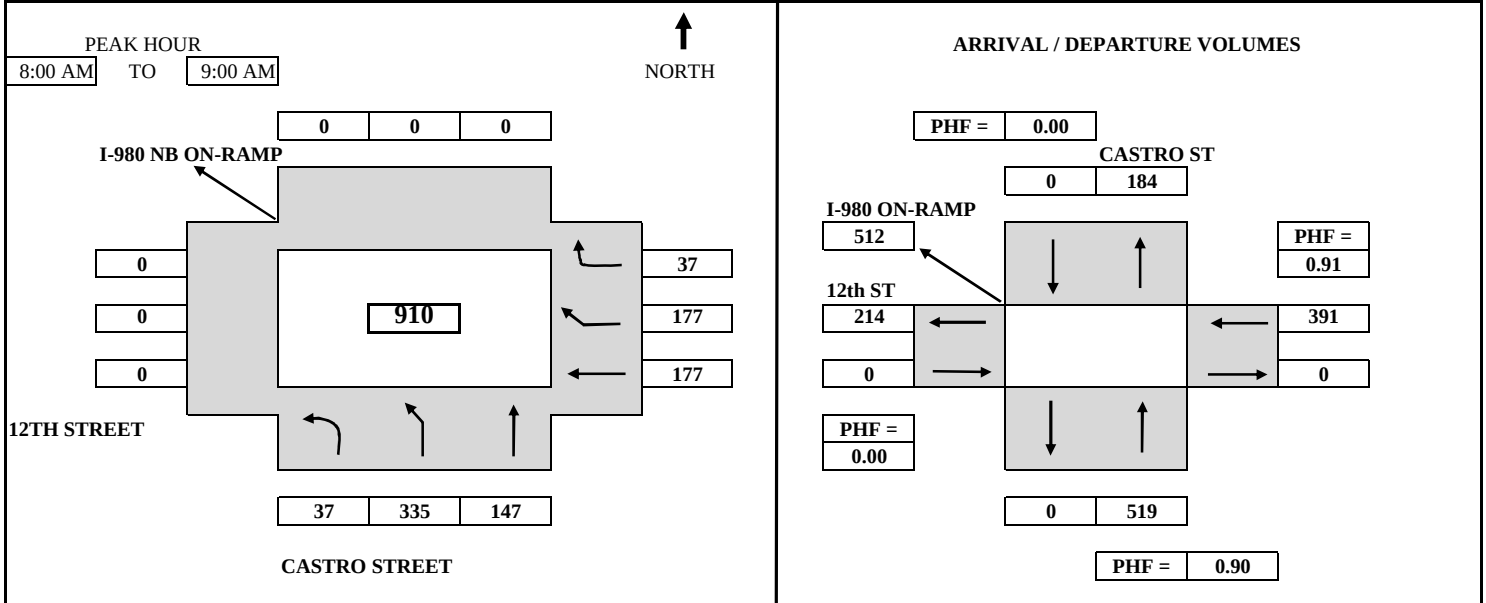
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: CASTRO STREET		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH 12TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-4AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		12th ST	I-980	CASTRO	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	12th ST	I-980	CASTRO	
SURVEY DATA															
7:00 AM	to	7:15 AM	2	44	15							15	25	2	103
7:15 AM	to	7:30 AM	10	96	45							35	61	5	252
7:30 AM	to	7:45 AM	14	170	62							51	94	14	405
7:45 AM	to	8:00 AM	21	257	99							79	132	17	605
8:00 AM	to	8:15 AM	25	345	133							120	189	26	838
8:15 AM	to	8:30 AM	38	446	163							166	234	37	1084
8:30 AM	to	8:45 AM	46	522	207							209	268	48	1300
8:45 AM	to	9:00 AM	58	592	246							256	309	54	1515
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	2	44	15	0	0	0	0	0	0	15	25	2	103
7:15 AM	to	7:30 AM	8	52	30	0	0	0	0	0	0	20	36	3	149
7:30 AM	to	7:45 AM	4	74	17	0	0	0	0	0	0	16	33	9	153
7:45 AM	to	8:00 AM	7	87	37	0	0	0	0	0	0	28	38	3	200
8:00 AM	to	8:15 AM	4	88	34	0	0	0	0	0	0	41	57	9	233
8:15 AM	to	8:30 AM	13	101	30	0	0	0	0	0	0	46	45	11	246
8:30 AM	to	8:45 AM	8	76	44	0	0	0	0	0	0	43	34	11	216
8:45 AM	to	9:00 AM	12	70	39	0	0	0	0	0	0	47	41	6	215
HOURLY TOTALS															
7:00 AM	to	8:00 AM	21	257	99	0	0	0	0	0	0	79	132	17	605
7:15 AM	to	8:15 AM	23	301	118	0	0	0	0	0	0	105	164	24	735
7:30 AM	to	8:30 AM	28	350	118	0	0	0	0	0	0	131	173	32	832
7:45 AM	to	8:45 AM	32	352	145	0	0	0	0	0	0	158	174	34	895
8:00 AM	to	9:00 AM	37	335	147	0	0	0	0	0	0	177	177	37	910
PEAK HOUR SUMMARY															
8:00 AM	to	9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			37	335	147	0	0	0	0	0	0	177	177	37	910
PHF BY MOVEMENT			0.71	0.83	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.78	0.84	OVERALL
PHF BY APPROACH			0.90			0.00			0.00			0.91			0.92
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

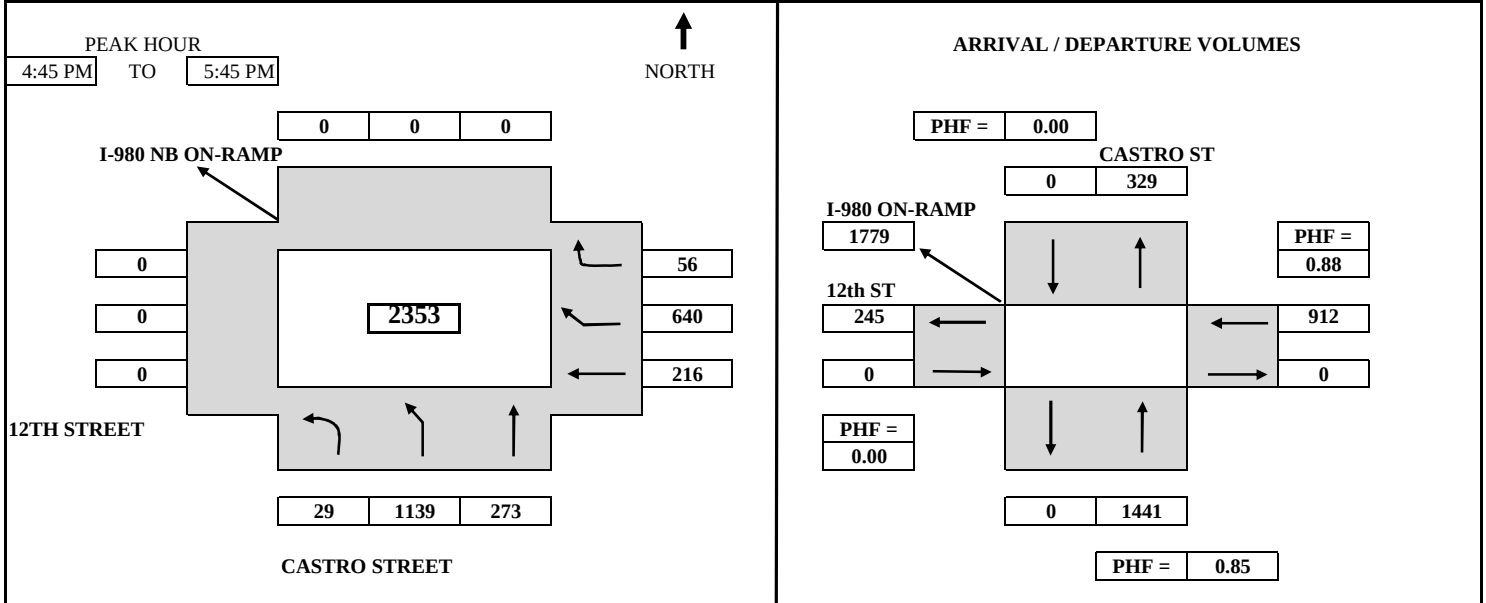
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: CASTRO STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 12TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-4PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	12th ST	I-980	CASTRO	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	12th ST	I-980	CASTRO	
SURVEY DATA															
4:00 PM	to	4:15 PM	10	239	49							39	139	10	486
4:15 PM	to	4:30 PM	17	437	83							79	248	20	884
4:30 PM	to	4:45 PM	25	707	133							134	427	30	1456
4:45 PM	to	5:00 PM	30	950	196							183	553	39	1951
5:00 PM	to	5:15 PM	43	1288	271							249	708	59	2618
5:15 PM	to	5:30 PM	51	1545	338							311	892	72	3209
5:30 PM	to	5:45 PM	54	1846	406							350	1067	86	3809
5:45 PM	to	6:00 PM	64	2053	457							392	1192	91	4249
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	10	239	49	0	0	0	0	0	0	39	139	10	486
4:15 PM	to	4:30 PM	7	198	34	0	0	0	0	0	0	40	109	10	398
4:30 PM	to	4:45 PM	8	270	50	0	0	0	0	0	0	55	179	10	572
4:45 PM	to	5:00 PM	5	243	63	0	0	0	0	0	0	49	126	9	495
5:00 PM	to	5:15 PM	13	338	75	0	0	0	0	0	0	66	155	20	667
5:15 PM	to	5:30 PM	8	257	67	0	0	0	0	0	0	62	184	13	591
5:30 PM	to	5:45 PM	3	301	68	0	0	0	0	0	0	39	175	14	600
5:45 PM	to	6:00 PM	10	207	51	0	0	0	0	0	0	42	125	5	440
HOURLY TOTALS															
4:00 PM	to	5:00 PM	30	950	196	0	0	0	0	0	0	183	553	39	1951
4:15 PM	to	5:15 PM	33	1049	222	0	0	0	0	0	0	210	569	49	2132
4:30 PM	to	5:30 PM	34	1108	255	0	0	0	0	0	0	232	644	52	2325
4:45 PM	to	5:45 PM	29	1139	273	0	0	0	0	0	0	216	640	56	2353
5:00 PM	to	6:00 PM	34	1103	261	0	0	0	0	0	0	209	639	52	2298
PEAK HOUR SUMMARY															
4:45 PM	to	5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			29	1139	273	0	0	0	0	0	0	216	640	56	2353
PHF BY MOVEMENT			0.56	0.84	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.87	0.70	OVERALL
PHF BY APPROACH			0.85			0.00			0.00			0.88			0.88
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

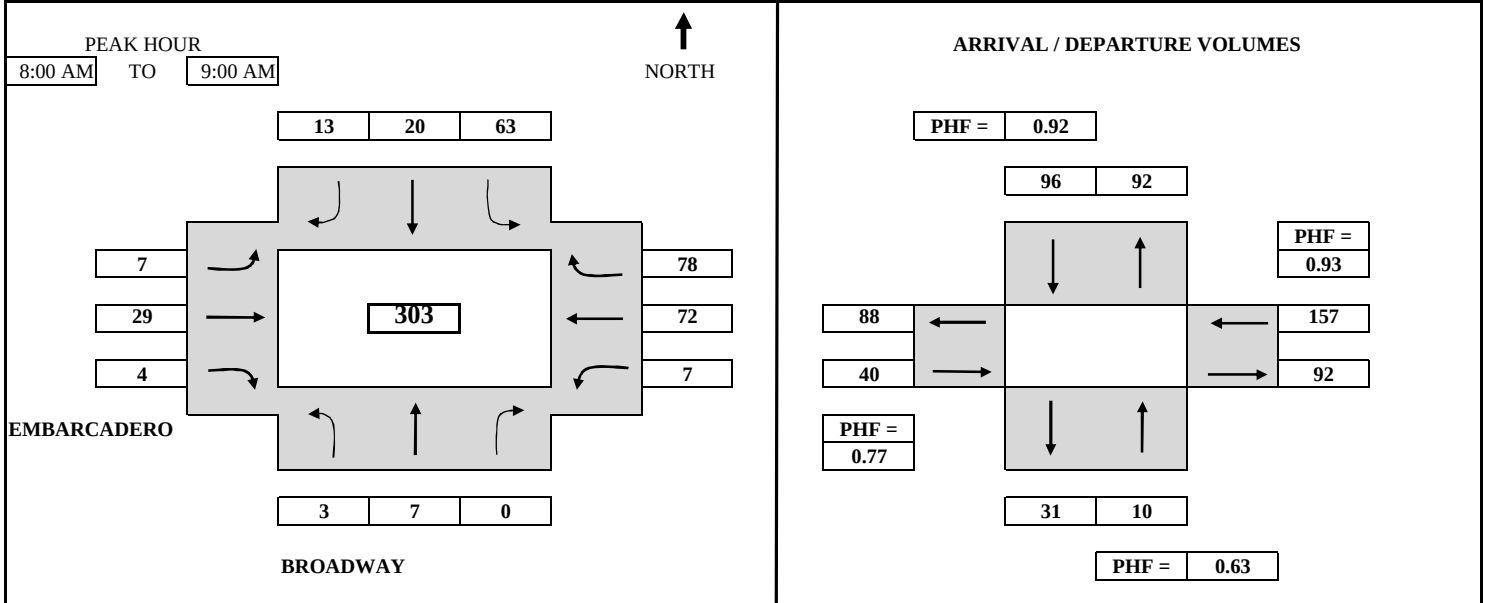
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: BROADWAY		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH EMBARCADERO		JURISDICTION: OAKLAND		FILE:	3301002-5AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	1	3	2	15	3	2	2	7	0	2	7	8	52
7:15 AM	to	7:30 AM	2	3	2	26	5	7	2	11	1	2	10	23	94
7:30 AM	to	7:45 AM	3	4	2	37	11	14	4	14	5	4	24	38	160
7:45 AM	to	8:00 AM	7	5	2	47	16	14	7	19	7	5	48	53	230
8:00 AM	to	8:15 AM	7	6	2	65	19	16	9	27	10	7	67	74	309
8:15 AM	to	8:30 AM	8	7	2	78	25	20	11	37	10	9	85	94	386
8:30 AM	to	8:45 AM	9	9	2	92	31	24	13	44	11	11	101	110	457
8:45 AM	to	9:00 AM	10	12	2	110	36	27	14	48	11	12	120	131	533
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	1	3	2	15	3	2	2	7	0	2	7	8	52
7:15 AM	to	7:30 AM	1	0	0	11	2	5	0	4	1	0	3	15	42
7:30 AM	to	7:45 AM	1	1	0	11	6	7	2	3	4	2	14	15	66
7:45 AM	to	8:00 AM	4	1	0	10	5	0	3	5	2	1	24	15	70
8:00 AM	to	8:15 AM	0	1	0	18	3	2	2	8	3	2	19	21	79
8:15 AM	to	8:30 AM	1	1	0	13	6	4	2	10	0	2	18	20	77
8:30 AM	to	8:45 AM	1	2	0	14	6	4	2	7	1	2	16	16	71
8:45 AM	to	9:00 AM	1	3	0	18	5	3	1	4	0	1	19	21	76
HOURLY TOTALS															
7:00 AM	to	8:00 AM	7	5	2	47	16	14	7	19	7	5	48	53	230
7:15 AM	to	8:15 AM	6	3	0	50	16	14	7	20	10	5	60	66	257
7:30 AM	to	8:30 AM	6	4	0	52	20	13	9	26	9	7	75	71	292
7:45 AM	to	8:45 AM	6	5	0	55	20	10	9	30	6	7	77	72	297
8:00 AM	to	9:00 AM	3	7	0	63	20	13	7	29	4	7	72	78	303
PEAK HOUR SUMMARY															
8:00 AM	to	9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			3	7	0	63	20	13	7	29	4	7	72	78	303
PHF BY MOVEMENT			0.75	0.58	0.00	0.88	0.83	0.81	0.88	0.73	0.33	0.88	0.95	0.93	OVERALL
PHF BY APPROACH			0.63			0.92			0.77			0.93			0.96
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

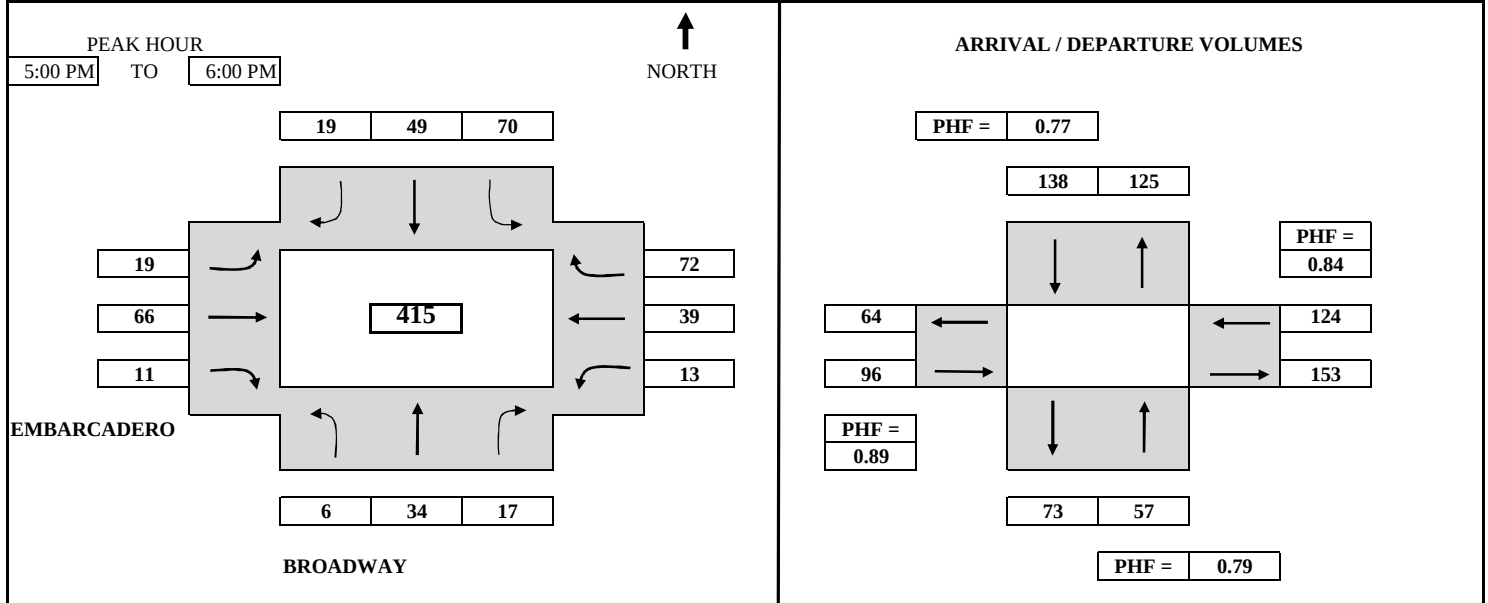
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: BROADWAY		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH EMBARCADERO		JURISDICTION: OAKLAND		FILE:	3301002-5PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	1	8	1	13	6	1	2	25	2	2	21	20	102
4:15 PM	to	4:30 PM	1	16	1	25	10	5	4	44	3	2	34	34	179
4:30 PM	to	4:45 PM	3	30	2	40	20	11	6	73	5	3	45	50	288
4:45 PM	to	5:00 PM	3	39	3	54	23	14	11	103	8	4	53	65	380
5:00 PM	to	5:15 PM	6	49	8	60	33	14	15	119	10	9	58	82	463
5:15 PM	to	5:30 PM	7	61	12	75	44	23	19	136	11	15	71	100	574
5:30 PM	to	5:45 PM	8	71	17	96	64	27	26	152	15	16	84	119	695
5:45 PM	to	6:00 PM	9	73	20	124	72	33	30	169	19	17	92	137	795
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	1	8	1	13	6	1	2	25	2	2	21	20	102
4:15 PM	to	4:30 PM	0	8	0	12	4	4	2	19	1	0	13	14	77
4:30 PM	to	4:45 PM	2	14	1	15	10	6	2	29	2	1	11	16	109
4:45 PM	to	5:00 PM	0	9	1	14	3	3	5	30	3	1	8	15	92
5:00 PM	to	5:15 PM	3	10	5	6	10	0	4	16	2	5	5	17	83
5:15 PM	to	5:30 PM	1	12	4	15	11	9	4	17	1	6	13	18	111
5:30 PM	to	5:45 PM	1	10	5	21	20	4	7	16	4	1	13	19	121
5:45 PM	to	6:00 PM	1	2	3	28	8	6	4	17	4	1	8	18	100
HOURLY TOTALS															
4:00 PM	to	5:00 PM	3	39	3	54	23	14	11	103	8	4	53	65	380
4:15 PM	to	5:15 PM	5	41	7	47	27	13	13	94	8	7	37	62	361
4:30 PM	to	5:30 PM	6	45	11	50	34	18	15	92	8	13	37	66	395
4:45 PM	to	5:45 PM	5	41	15	56	44	16	20	79	10	13	39	69	407
5:00 PM	to	6:00 PM	6	34	17	70	49	19	19	66	11	13	39	72	415
PEAK HOUR SUMMARY															
5:00 PM	to	6:00 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			6	34	17	70	49	19	19	66	11	13	39	72	415
PHF BY MOVEMENT			0.50	0.71	0.85	0.63	0.61	0.53	0.68	0.97	0.69	0.54	0.75	0.95	OVERALL
PHF BY APPROACH			0.79			0.77			0.89			0.84			0.86
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)					SURVEY DATE: 2/14/2013					DAY: THURSDAY				
N-S APPROACH: BROADWAY					SURVEY TIME: 7:00 AM					TO 9:00 AM				
E-W APPROACH: 2ND STREET					JURISDICTION: OAKLAND					FILE: 3302018-3AM				

PEAK HOUR
8:00 AM to 9:00 AM

NORTH

2ND STREET

BROADWAY

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

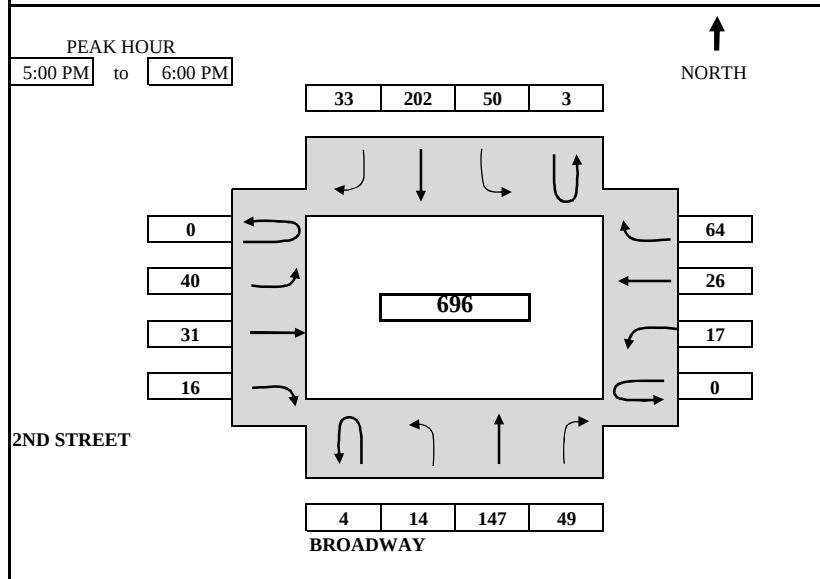
TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM	0	10	0		0	8	12	9	1	2	0		1	1	5		49
7:15 AM	to 7:30 AM	0	17	1		0	14	31	13	3	2	4		1	2	11		99
7:30 AM	to 7:45 AM	3	31	2		0	19	51	19	5	4	4		1	10	15		164
7:45 AM	to 8:00 AM	4	48	3		1	24	66	22	8	7	4		1	13	22		223
8:00 AM	to 8:15 AM	4	66	3		1	32	92	27	10	8	6		1	18	29		297
8:15 AM	to 8:30 AM	6	85	4		1	37	112	30	13	9	7		2	26	34		366
8:30 AM	to 8:45 AM	7	107	7		2	43	145	34	15	10	7		7	35	45		464
8:45 AM	to 9:00 AM	8	130	11		3	54	181	37	17	11	8		10	42	56		568
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	10	0	0	8	12	9	0	1	2	0	0	1	1	5	49
7:15 AM	to 7:30 AM	0	0	7	1	0	6	19	4	0	2	0	4	0	0	1	6	50
7:30 AM	to 7:45 AM	0	3	14	1	0	5	20	6	0	2	2	0	0	0	8	4	65
7:45 AM	to 8:00 AM	0	1	17	1	1	5	15	3	0	3	3	0	0	0	3	7	59
8:00 AM	to 8:15 AM	0	0	18	0	0	8	26	5	0	2	1	2	0	0	5	7	74
8:15 AM	to 8:30 AM	0	2	19	1	0	5	20	3	0	3	1	1	0	1	8	5	69
8:30 AM	to 8:45 AM	0	1	22	3	1	6	33	4	0	2	1	0	0	5	9	11	98
8:45 AM	to 9:00 AM	0	1	23	4	1	11	36	3	0	2	1	1	0	3	7	11	104
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	4	48	3	1	24	66	22	0	8	7	4	0	1	13	22	223
7:15 AM	to 8:15 AM	0	4	56	3	1	24	80	18	0	9	6	6	0	0	17	24	248
7:30 AM	to 8:30 AM	0	6	68	3	1	23	81	17	0	10	7	3	0	1	24	23	267
7:45 AM	to 8:45 AM	0	4	76	5	2	24	94	15	0	10	6	3	0	6	25	30	300
8:00 AM	to 9:00 AM	0	4	82	8	2	30	115	15	0	9	4	4	0	9	29	34	345
PEAK HOUR SUMMARY																		
8:00 AM	to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	4	82	8	2	30	115	15	0	9	4	4	0	9	29	34	345
PHF BY MOVEMENT		0.00	0.50	0.89	0.50	0.50	0.68	0.80	0.75	0.00	0.75	1.00	0.50	0.00	0.45	0.81	0.77	OVERALL
PHF BY APPROACH		0.84				0.79				0.85				0.72				0.83

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	BROADWAY	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	2ND STREET	JURISDICTION:	OAKLAND	FILE:	3302018-3PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.85	
288	254
PHF = 0.72	
73	107
87	130
PHF = 0.75	
239	214
PHF = 0.88	

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM	0	1	40	3	0	9	28	4	8	8	0		4	6	6		117
4:15 PM	to 4:30 PM	0	1	57	7	0	20	54	13	18	17	1		5	13	16		222
4:30 PM	to 4:45 PM	0	3	87	12	1	29	95	17	26	25	2		9	17	25		348
4:45 PM	to 5:00 PM	0	6	122	17	1	37	141	22	37	32	3		12	21	34		485
5:00 PM	to 5:15 PM	1	10	164	29	1	47	184	32	50	42	9		16	30	46		661
5:15 PM	to 5:30 PM	2	15	201	38	2	61	232	37	62	53	11		19	34	62		829
5:30 PM	to 5:45 PM	3	18	232	45	4	73	284	43	70	58	17		26	43	83		999
5:45 PM	to 6:00 PM	4	20	269	66	4	87	343	55	77	63	19		29	47	98		1181
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	1	40	3	0	9	28	4	0	8	8	0	0	4	6	6	117
4:15 PM	to 4:30 PM	0	0	17	4	0	11	26	9	0	10	9	1	0	1	7	10	105
4:30 PM	to 4:45 PM	0	2	30	5	1	9	41	4	0	8	8	1	0	4	4	9	126
4:45 PM	to 5:00 PM	0	3	35	5	0	8	46	5	0	11	7	1	0	3	4	9	137
5:00 PM	to 5:15 PM	1	4	42	12	0	10	43	10	0	13	10	6	0	4	9	12	176
5:15 PM	to 5:30 PM	1	5	37	9	1	14	48	5	0	12	11	2	0	3	4	16	168
5:30 PM	to 5:45 PM	1	3	31	7	2	12	52	6	0	8	5	6	0	7	9	21	170
5:45 PM	to 6:00 PM	1	2	37	21	0	14	59	12	0	7	5	2	0	3	4	15	182
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	6	122	17	1	37	141	22	0	37	32	3	0	12	21	34	485
4:15 PM	to 5:15 PM	1	9	124	26	1	38	156	28	0	42	34	9	0	12	24	40	544
4:30 PM	to 5:30 PM	2	14	144	31	2	41	178	24	0	44	36	10	0	14	21	46	607
4:45 PM	to 5:45 PM	3	15	145	33	3	44	189	26	0	44	33	15	0	17	26	58	651
5:00 PM	to 6:00 PM	4	14	147	49	3	50	202	33	0	40	31	16	0	17	26	64	696
PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		4	14	147	49	3	50	202	33	0	40	31	16	0	17	26	64	696
PHF BY MOVEMENT		1.00	0.70	0.88	0.58	0.38	0.89	0.86	0.69	0.00	0.77	0.70	0.67	0.00	0.61	0.72	0.76	OVERALL
PHF BY APPROACH		0.88				0.85				0.75				0.72				0.96

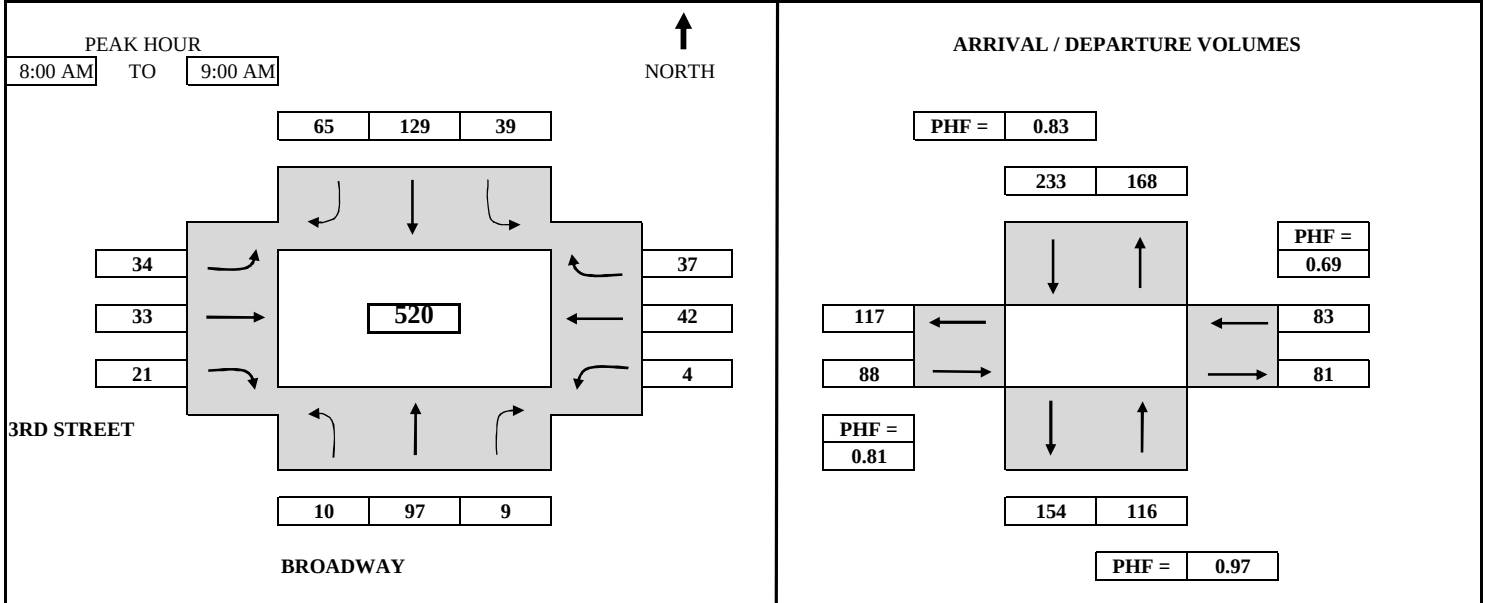
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: BROADWAY		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH 3RD STREET		JURISDICTION: OAKLAND		FILE:	3301002-6AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	2	16	0	2	26	12	4	1	7	4	5	8	87
7:15 AM	to	7:30 AM	3	32	1	4	49	23	11	5	10	6	9	15	168
7:30 AM	to	7:45 AM	4	51	2	10	77	38	16	8	16	7	19	32	280
7:45 AM	to	8:00 AM	7	74	7	16	108	54	22	13	21	8	28	40	398
8:00 AM	to	8:15 AM	9	99	9	25	131	68	29	17	28	9	35	45	504
8:15 AM	to	8:30 AM	12	122	11	32	169	93	38	28	35	11	47	61	659
8:30 AM	to	8:45 AM	14	148	13	46	199	111	50	34	40	12	62	70	799
8:45 AM	to	9:00 AM	17	171	16	55	237	119	56	46	42	12	70	77	918
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	2	16	0	2	26	12	4	1	7	4	5	8	87
7:15 AM	to	7:30 AM	1	16	1	2	23	11	7	4	3	2	4	7	81
7:30 AM	to	7:45 AM	1	19	1	6	28	15	5	3	6	1	10	17	112
7:45 AM	to	8:00 AM	3	23	5	6	31	16	6	5	5	1	9	8	118
8:00 AM	to	8:15 AM	2	25	2	9	23	14	7	4	7	1	7	5	106
8:15 AM	to	8:30 AM	3	23	2	7	38	25	9	11	7	2	12	16	155
8:30 AM	to	8:45 AM	2	26	2	14	30	18	12	6	5	1	15	9	140
8:45 AM	to	9:00 AM	3	23	3	9	38	8	6	12	2	0	8	7	119
HOURLY TOTALS															
7:00 AM	to	8:00 AM	7	74	7	16	108	54	22	13	21	8	28	40	398
7:15 AM	to	8:15 AM	7	83	9	23	105	56	25	16	21	5	30	37	417
7:30 AM	to	8:30 AM	9	90	10	28	120	70	27	23	25	5	38	46	491
7:45 AM	to	8:45 AM	10	97	11	36	122	73	34	26	24	5	43	38	519
8:00 AM	to	9:00 AM	10	97	9	39	129	65	34	33	21	4	42	37	520
PEAK HOUR SUMMARY															
8:00 AM	to	9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			10	97	9	39	129	65	34	33	21	4	42	37	520
PHF BY MOVEMENT			0.83	0.93	0.75	0.70	0.85	0.65	0.71	0.69	0.75	0.50	0.70	0.58	OVERALL
PHF BY APPROACH			0.97			0.83			0.81			0.69			0.84
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

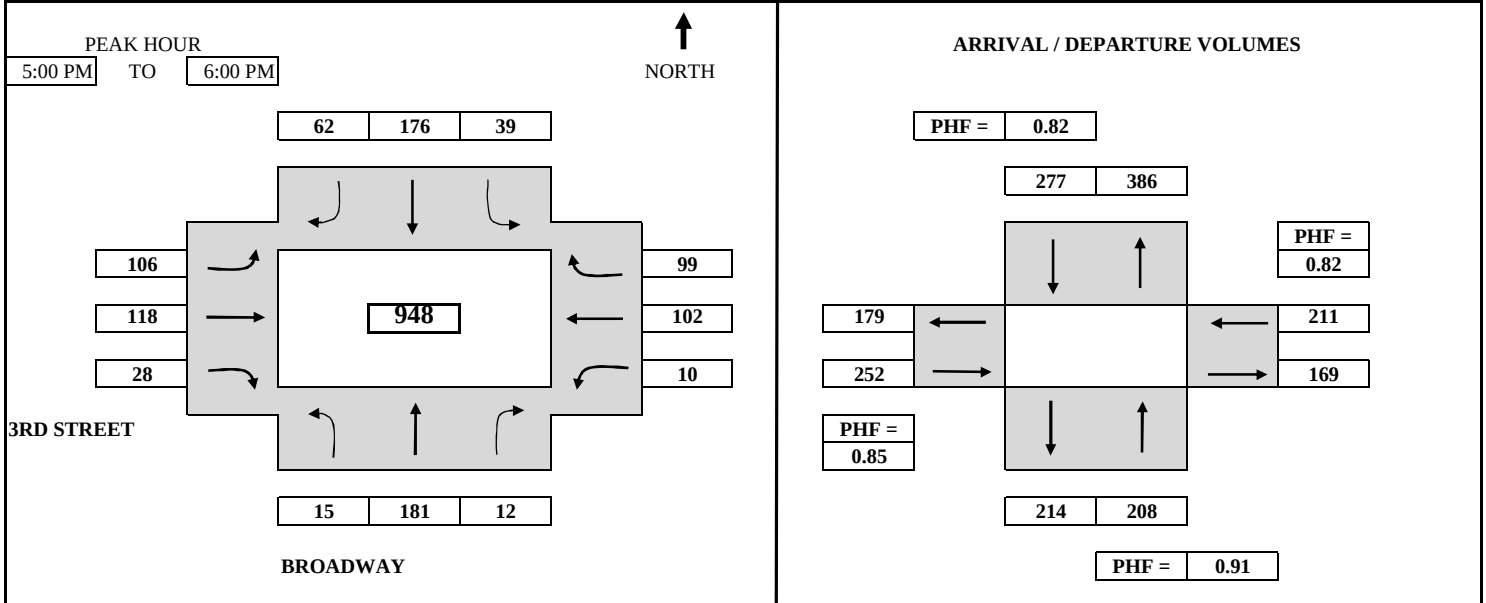
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: BROADWAY		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 3RD STREET		JURISDICTION:	OAKLAND	FILE:	3301002-6PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	3	47	2	12	30	15	24	23	4	1	29	18	208
4:15 PM	to	4:30 PM	8	91	5	24	60	31	46	46	9	3	52	34	409
4:30 PM	to	4:45 PM	11	137	7	34	103	48	70	73	13	4	77	52	629
4:45 PM	to	5:00 PM	14	179	9	42	127	59	92	102	15	6	95	74	814
5:00 PM	to	5:15 PM	16	229	12	54	152	74	126	131	26	6	119	104	1049
5:15 PM	to	5:30 PM	21	277	14	62	199	90	152	162	35	9	148	126	1295
5:30 PM	to	5:45 PM	25	327	17	70	249	102	181	185	38	13	179	155	1541
5:45 PM	to	6:00 PM	29	360	21	81	303	121	198	220	43	16	197	173	1762
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	3	47	2	12	30	15	24	23	4	1	29	18	208
4:15 PM	to	4:30 PM	5	44	3	12	30	16	22	23	5	2	23	16	201
4:30 PM	to	4:45 PM	3	46	2	10	43	17	24	27	4	1	25	18	220
4:45 PM	to	5:00 PM	3	42	2	8	24	11	22	29	2	2	18	22	185
5:00 PM	to	5:15 PM	2	50	3	12	25	15	34	29	11	0	24	30	235
5:15 PM	to	5:30 PM	5	48	2	8	47	16	26	31	9	3	29	22	246
5:30 PM	to	5:45 PM	4	50	3	8	50	12	29	23	3	4	31	29	246
5:45 PM	to	6:00 PM	4	33	4	11	54	19	17	35	5	3	18	18	221
HOURLY TOTALS															
4:00 PM	to	5:00 PM	14	179	9	42	127	59	92	102	15	6	95	74	814
4:15 PM	to	5:15 PM	13	182	10	42	122	59	102	108	22	5	90	86	841
4:30 PM	to	5:30 PM	13	186	9	38	139	59	106	116	26	6	96	92	886
4:45 PM	to	5:45 PM	14	190	10	36	146	54	111	112	25	9	102	103	912
5:00 PM	to	6:00 PM	15	181	12	39	176	62	106	118	28	10	102	99	948
PEAK HOUR SUMMARY															
5:00 PM	to	6:00 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			15	181	12	39	176	62	106	118	28	10	102	99	948
PHF BY MOVEMENT			0.75	0.91	0.75	0.81	0.81	0.82	0.78	0.84	0.64	0.63	0.82	0.83	OVERALL
PHF BY APPROACH			0.91			0.82			0.85			0.82			0.96
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY				SURVEY DATE: 1/15/2013				DAY: TUESDAY			
N-S APPROACH: BROADWAY				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH: 5TH STREET				JURISDICTION: OAKLAND				FILE: 3301002-7AM			

PEAK HOUR 7:45 AM to 8:45 AM BROADWAY to SB Brdwy 247 to WB 5th St 8 to I-980 117 to Alameda 297 5TH STREET to NB Broadway 33 to Alameda 672 to I-980 131 to WB 5th Street 3 to SB Broadway 75 1918 125 152 54 4 Brdwy to NB Alameda to I-980 to 5th St to WB NORTH ↑									
ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF PHF = 0.93 669 158 0 914 PHF = 0.89 322 335 PHF = 0.86									

TIME PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND					TOTAL
From To	NB BDY	ALADA	I-980	5th ST	ALADA	I-980	5th ST	SB BDY	NB BDY	ALADA	I-980	5th ST	SB BDY	

SURVEY DATA														
7:00 AM to 7:15 AM	13	19	10	2	58	29	2	34	7	107	19	0	6	306
7:15 AM to 7:30 AM	36	43	22	3	131	46	2	77	15	248	40	1	18	682
7:30 AM to 7:45 AM	65	75	33	3	193	67	3	149	21	417	70	2	35	1133
7:45 AM to 8:00 AM	79	116	48	4	282	96	6	196	31	621	93	2	56	1630
8:00 AM to 8:15 AM	113	150	56	4	352	121	8	249	38	786	127	4	70	2078
8:15 AM to 8:30 AM	150	193	71	6	428	148	9	317	48	951	163	4	96	2584
8:30 AM to 8:45 AM	190	227	87	7	490	184	11	396	54	1089	201	5	110	3051
8:45 AM to 9:00 AM	224	259	101	8	554	219	12	468	65	1251	239	7	130	3537

TOTAL BY PERIOD														
7:00 AM to 7:15 AM	13	19	10	2	58	29	2	34	7	107	19	0	6	306
7:15 AM to 7:30 AM	23	24	12	1	73	17	0	43	8	141	21	1	12	376
7:30 AM to 7:45 AM	29	32	11	0	62	21	1	72	6	169	30	1	17	451
7:45 AM to 8:00 AM	14	41	15	1	89	29	3	47	10	204	23	0	21	497
8:00 AM to 8:15 AM	34	34	8	0	70	25	2	53	7	165	34	2	14	448
8:15 AM to 8:30 AM	37	43	15	2	76	27	1	68	10	165	36	0	26	506
8:30 AM to 8:45 AM	40	34	16	1	62	36	2	79	6	138	38	1	14	467
8:45 AM to 9:00 AM	34	32	14	1	64	35	1	72	11	162	38	2	20	486

HOURLY TOTALS														
7:00 AM to 8:00 AM	79	116	48	4	282	96	6	196	31	621	93	2	56	1630
7:15 AM to 8:15 AM	100	131	46	2	294	92	6	215	31	679	108	4	64	1772
7:30 AM to 8:30 AM	114	150	49	3	297	102	7	240	33	703	123	3	78	1902
7:45 AM to 8:45 AM	125	152	54	4	297	117	8	247	33	672	131	3	75	1918
8:00 AM to 9:00 AM	145	143	53	4	272	123	6	272	34	630	146	5	74	1907

PEAK HOUR SUMMARY														
7:45 AM to 8:45 AM	BRDWY	ALADA	I-980	5th ST	ALADA	I-980	5th ST	BRDWY	SB BDY	ALADA	I-980	5th ST	NB BDY	TOTAL
VOLUME	125	152	54	4	297	117	8	247	33	672	131	3	75	1918
PHF BY MOVEMENT	0.78	0.88	0.84	0.50	0.83	0.81	0.67	0.78	0.83	0.82	0.86	0.38	0.72	OVERALL
PHF BY APPROACH	0.86				0.93				0.89				0.00	0.95

TEL: (510) 232 - 1271					FAX: (510) 232 - 1272				
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B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:		JACK LONDON SQUARE STUDY								SURVEY DATE:		1/15/2013		DAY: TUESDAY					
N-S APPROACH:		BROADWAY								SURVEY TIME:		4:00 PM		TO 6:00 PM					
E-W APPROACH:		5TH STREET								JURISDICTION:		OAKLAND		FILE: 3301002-7PM					
PEAK HOUR 5:00 PM to 6:00 PM to SB Brdwy 254 ↓ to WB 5th St 2 ↘ to I-980 262 ↘ to Alameda 327 ↘ 5TH STREET to NB Broadway 25 → to Alameda 982 → to I-980 280 → to WB 5th Street 4 → to SB Broadway 73 → 2772 ↑ 0 ↑ 0 ↑ 0 ↑ 0 ↑ 269 ↗ 233 ↗ 59 ↗ 2 Brdwy to NB 269 Alameda to I-980 233 I-980 to 5th St 59 5th St to WB 2 BROADWAY ↑ NORTH										ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF PHF = 0.98 845 294 ↓ ↑ → 1542 ← 0 → 1364 → 601 → 8 PHF = 0.93 ↓ ↑ 327 563 PHF = 0.90									
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND							TOTAL		
From	To	NB BDY	ALADA	I-980	5th ST	ALADA	I-980	5th ST	SB BDY	NB BDY	ALADA	I-980	5th ST	SB BDY					
SURVEY DATA																			
4:00 PM to 4:15 PM		61	46	17	4	59	64	1	56	8	168	74	2	18				578	
4:15 PM to 4:30 PM		129	92	31	6	127	132	3	111	17	363	143	4	31				1189	
4:30 PM to 4:45 PM		184	144	46	7	193	209	3	172	21	552	228	5	46				1810	
4:45 PM to 5:00 PM		245	197	60	7	273	272	3	227	31	765	293	7	55				2435	
5:00 PM to 5:15 PM		328	244	86	7	351	349	3	280	42	1003	391	8	73				3165	
5:15 PM to 5:30 PM		387	299	95	8	435	408	3	343	49	1261	450	10	88				3836	
5:30 PM to 5:45 PM		449	373	113	9	517	469	5	414	51	1503	520	11	102				4536	
5:45 PM to 6:00 PM		514	430	119	9	600	534	5	481	56	1747	573	11	128				5207	
TOTAL BY PERIOD																			
4:00 PM to 4:15 PM		61	46	17	4	59	64	1	56	8	168	74	2	18	0	0	0	578	
4:15 PM to 4:30 PM		68	46	14	2	68	68	2	55	9	195	69	2	13	0	0	0	611	
4:30 PM to 4:45 PM		55	52	15	1	66	77	0	61	4	189	85	1	15	0	0	0	621	
4:45 PM to 5:00 PM		61	53	14	0	80	63	0	55	10	213	65	2	9	0	0	0	625	
5:00 PM to 5:15 PM		83	47	26	0	78	77	0	53	11	238	98	1	18	0	0	0	730	
5:15 PM to 5:30 PM		59	55	9	1	84	59	0	63	7	258	59	2	15	0	0	0	671	
5:30 PM to 5:45 PM		62	74	18	1	82	61	2	71	2	242	70	1	14	0	0	0	700	
5:45 PM to 6:00 PM		65	57	6	0	83	65	0	67	5	244	53	0	26	0	0	0	671	
HOURLY TOTALS																			
4:00 PM to 5:00 PM		245	197	60	7	273	272	3	227	31	765	293	7	55	0	0	0	2435	
4:15 PM to 5:15 PM		267	198	69	3	292	285	2	224	34	835	317	6	55	0	0	0	2587	
4:30 PM to 5:30 PM		258	207	64	2	308	276	0	232	32	898	307	6	57	0	0	0	2647	
4:45 PM to 5:45 PM		265	229	67	2	324	260	2	242	30	951	292	6	56	0	0	0	2726	
5:00 PM to 6:00 PM		269	233	59	2	327	262	2	254	25	982	280	4	73	0	0	0	2772	
PEAK HOUR SUMMARY																			
5:00 PM to 6:00 PM		BRDWDY	ALADA	I-980	5th ST	ALADA	I-980	5th ST	BRDWDY	SB BDY	ALADA	I-980	5th ST	NB BDY	LEFT	THRU	RIGHT	TOTAL	
VOLUME		269	233	59	2	327	262	2	254	25	982	280	4	73	0	0	0	2772	
PHF BY MOVEMENT		0.81	0.79	0.57	0.50	0.97	0.85	0.25	0.89	0.57	0.95	0.71	0.50	0.70	0.00	0.00	0.00	OVERALL	
PHF BY APPROACH		0.90				0.98				0.93				0.00				0.95	
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272																			

B.A.Y.M.E.T.R.I.C.S.

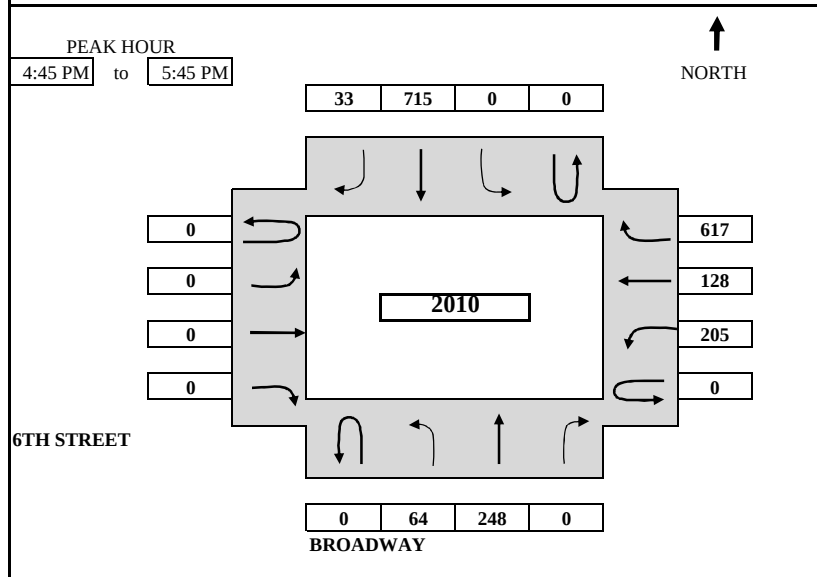
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/14/2013				DAY: THURSDAY			
N-S APPROACH: BROADWAY				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH: 6TH STREET				JURISDICTION: OAKLAND				FILE: 3302018-4AM			
PEAK HOUR 7:45 AM to 8:45 AM 44 335 0 0 0 0 0 0 1755 0 19 137 0 661 194 365 0 0 0 0 0 1755 0 19 137 0 661 194 365 0 0 19 137 0 661 194 365 0 0 19											

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	BROADWAY	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-4PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.94	
748	865
PHF = 0.88	
225	950
0	0
PHF = 0.00	
920	312
PHF = 0.92	

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM		14	65				150	6						63	22	115	435
4:15 PM	to 4:30 PM		23	119				302	19						127	51	224	865
4:30 PM	to 4:45 PM		39	205				481	32						193	84	326	1360
4:45 PM	to 5:00 PM		60	269				643	40						262	110	502	1886
5:00 PM	to 5:15 PM		75	329				823	47						301	139	615	2329
5:15 PM	to 5:30 PM		93	384				1011	58						347	172	763	2828
5:30 PM	to 5:45 PM		103	453				1196	65						398	212	943	3370
5:45 PM	to 6:00 PM		119	505				1370	67						443	249	1086	3839

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	14	65	0	0	0	150	6	0	0	0	0	0	63	22	115	435
4:15 PM	to 4:30 PM	0	9	54	0	0	0	152	13	0	0	0	0	0	64	29	109	430
4:30 PM	to 4:45 PM	0	16	86	0	0	0	179	13	0	0	0	0	0	66	33	102	495
4:45 PM	to 5:00 PM	0	21	64	0	0	0	162	8	0	0	0	0	0	69	26	176	526
5:00 PM	to 5:15 PM	0	15	60	0	0	0	180	7	0	0	0	0	0	39	29	113	443
5:15 PM	to 5:30 PM	0	18	55	0	0	0	188	11	0	0	0	0	0	46	33	148	499
5:30 PM	to 5:45 PM	0	10	69	0	0	0	185	7	0	0	0	0	0	51	40	180	542
5:45 PM	to 6:00 PM	0	16	52	0	0	0	174	2	0	0	0	0	0	45	37	143	469

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	60	269	0	0	0	643	40	0	0	0	0	0	262	110	502	1886
4:15 PM	to 5:15 PM	0	61	264	0	0	0	673	41	0	0	0	0	0	238	117	500	1894
4:30 PM	to 5:30 PM	0	70	265	0	0	0	709	39	0	0	0	0	0	220	121	539	1963
4:45 PM	to 5:45 PM	0	64	248	0	0	0	715	33	0	0	0	0	0	205	128	617	2010
5:00 PM	to 6:00 PM	0	59	236	0	0	0	727	27	0	0	0	0	0	181	139	584	1953

PEAK HOUR SUMMARY																		
4:45 PM	to 5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	64	248	0	0	0	715	33	0	0	0	0	0	205	128	617	2010
PHF BY MOVEMENT		0.00	0.76	0.90	0.00	0.00	0.00	0.95	0.75	0.00	0.00	0.00	0.00	0.00	0.74	0.80	0.86	OVERALL
PHF BY APPROACH		0.92				0.94				0.00				0.88				0.93

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)					SURVEY DATE: 2/14/2013					DAY: THURSDAY				
N-S APPROACH: BROADWAY					SURVEY TIME: 7:00 AM					TO 9:00 AM				
E-W APPROACH: 11TH STREET					JURISDICTION: OAKLAND					FILE: 3302018-5AM				

PEAK HOUR
8:00 AM to 9:00 AM

NORTH

11TH STREET

BROADWAY

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.85

495 480

PHF = 0.00

0 0

699 685

PHF = 0.92

517 488

PHF = 0.92

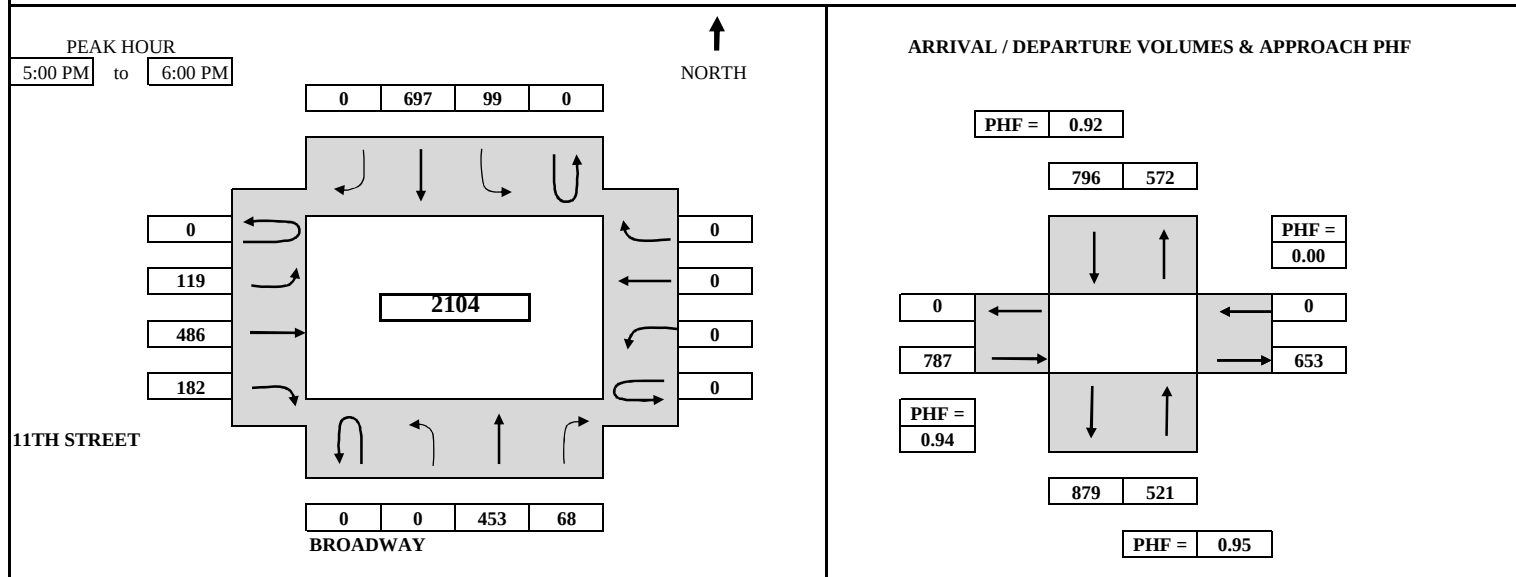
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM			50	17			7	35			14	72	15				210
7:15 AM	to 7:30 AM			120	30			18	84			28	162	28				470
7:30 AM	to 7:45 AM			205	54			24	162			45	262	50				802
7:45 AM	to 8:00 AM			299	75			45	245			59	385	69				1177
8:00 AM	to 8:15 AM			392	91			66	331			79	536	88				1583
8:15 AM	to 8:30 AM			502	113			79	422			95	669	115				1995
8:30 AM	to 8:45 AM			611	137			100	547			110	804	140				2449
8:45 AM	to 9:00 AM			709	153			127	658			129	910	173				2859
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	50	17	0	7	35	0	0	14	72	15	0	0	0	0	210
7:15 AM	to 7:30 AM	0	0	70	13	0	11	49	0	0	14	90	13	0	0	0	0	260
7:30 AM	to 7:45 AM	0	0	85	24	0	6	78	0	0	17	100	22	0	0	0	0	332
7:45 AM	to 8:00 AM	0	0	94	21	0	21	83	0	0	14	123	19	0	0	0	0	375
8:00 AM	to 8:15 AM	0	0	93	16	0	21	86	0	0	20	151	19	0	0	0	0	406
8:15 AM	to 8:30 AM	0	0	110	22	0	13	91	0	0	16	133	27	0	0	0	0	412
8:30 AM	to 8:45 AM	0	0	109	24	0	21	125	0	0	15	135	25	0	0	0	0	454
8:45 AM	to 9:00 AM	0	0	98	16	0	27	111	0	0	19	106	33	0	0	0	0	410
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	299	75	0	45	245	0	0	59	385	69	0	0	0	0	1177
7:15 AM	to 8:15 AM	0	0	342	74	0	59	296	0	0	65	464	73	0	0	0	0	1373
7:30 AM	to 8:30 AM	0	0	382	83	0	61	338	0	0	67	507	87	0	0	0	0	1525
7:45 AM	to 8:45 AM	0	0	406	83	0	76	385	0	0	65	542	90	0	0	0	0	1647
8:00 AM	to 9:00 AM	0	0	410	78	0	82	413	0	0	70	525	104	0	0	0	0	1682
PEAK HOUR SUMMARY																		
8:00 AM	to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
		0	0	410	78	0	82	413	0	0	70	525	104	0	0	0	0	1682
PHF BY MOVEMENT		0.00	0.00	0.93	0.81	0.00	0.76	0.83	0.00	0.00	0.88	0.87	0.79	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.92				0.85				0.92				0.00				0.93

TEL: (510) 232 - 1271
FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	BROADWAY	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	11TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-5PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM	98 12				21 150				24 90 34								429
4:15 PM	to 4:30 PM	199 21				50 298				47 171 76								862
4:30 PM	to 4:45 PM	320 38				72 478				78 249 115								1350
4:45 PM	to 5:00 PM	437 56				100 635				106 354 157								1845
5:00 PM	to 5:15 PM	556 73				130 822				134 487 202								2404
5:15 PM	to 5:30 PM	659 99				149 997				159 598 247								2908
5:30 PM	to 5:45 PM	787 108				176 1169				194 721 298								3453
5:45 PM	to 6:00 PM	890 124				199 1332				225 840 339								3949
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	98	12	0	21	150	0	0	24	90	34	0	0	0	0	429
4:15 PM	to 4:30 PM	0	0	101	9	0	29	148	0	0	23	81	42	0	0	0	0	433
4:30 PM	to 4:45 PM	0	0	121	17	0	22	180	0	0	31	78	39	0	0	0	0	488
4:45 PM	to 5:00 PM	0	0	117	18	0	28	157	0	0	28	105	42	0	0	0	0	495
5:00 PM	to 5:15 PM	0	0	119	17	0	30	187	0	0	28	133	45	0	0	0	0	559
5:15 PM	to 5:30 PM	0	0	103	26	0	19	175	0	0	25	111	45	0	0	0	0	504
5:30 PM	to 5:45 PM	0	0	128	9	0	27	172	0	0	35	123	51	0	0	0	0	545
5:45 PM	to 6:00 PM	0	0	103	16	0	23	163	0	0	31	119	41	0	0	0	0	496
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	437	56	0	100	635	0	0	106	354	157	0	0	0	0	1845
4:15 PM	to 5:15 PM	0	0	458	61	0	109	672	0	0	110	397	168	0	0	0	0	1975
4:30 PM	to 5:30 PM	0	0	460	78	0	99	699	0	0	112	427	171	0	0	0	0	2046
4:45 PM	to 5:45 PM	0	0	467	70	0	104	691	0	0	116	472	183	0	0	0	0	2103
5:00 PM	to 6:00 PM	0	0	453	68	0	99	697	0	0	119	486	182	0	0	0	0	2104
PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	453	68	0	99	697	0	0	119	486	182	0	0	0	0	2104
PHF BY MOVEMENT		0.00	0.00	0.88	0.65	0.00	0.83	0.93	0.00	0.00	0.85	0.91	0.89	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.95				0.92				0.94				0.00				0.94
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272																		

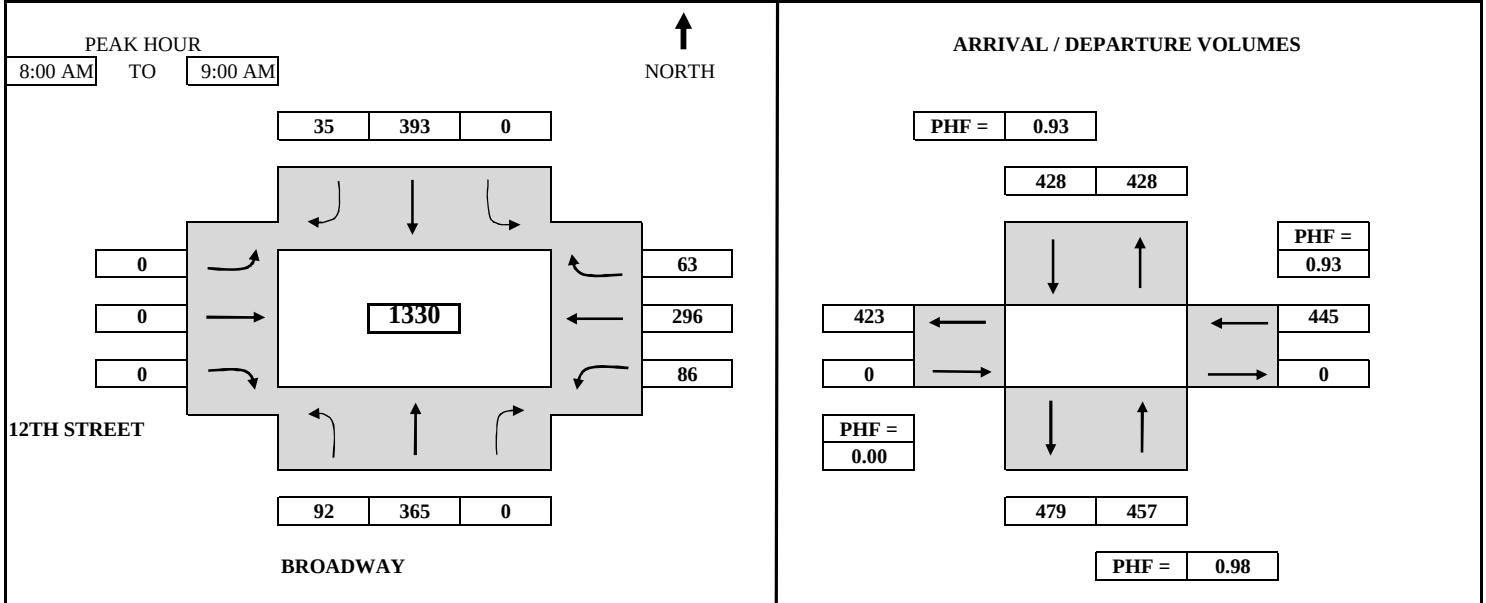
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: BROADWAY		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH 12TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-8AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	19	51		43	9					11	37	14	184
7:15 AM	to	7:30 AM	40	102		95	17					25	72	28	379
7:30 AM	to	7:45 AM	63	179		156	22					40	129	47	636
7:45 AM	to	8:00 AM	92	265		235	33					51	198	62	936
8:00 AM	to	8:15 AM	119	354		328	40					68	272	78	1259
8:15 AM	to	8:30 AM	142	448		427	49					89	353	95	1603
8:30 AM	to	8:45 AM	163	537		531	60					108	430	112	1941
8:45 AM	to	9:00 AM	184	630		628	68					137	494	125	2266
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	19	51	0	0	43	9	0	0	0	11	37	14	184
7:15 AM	to	7:30 AM	21	51	0	0	52	8	0	0	0	14	35	14	195
7:30 AM	to	7:45 AM	23	77	0	0	61	5	0	0	0	15	57	19	257
7:45 AM	to	8:00 AM	29	86	0	0	79	11	0	0	0	11	69	15	300
8:00 AM	to	8:15 AM	27	89	0	0	93	7	0	0	0	17	74	16	323
8:15 AM	to	8:30 AM	23	94	0	0	99	9	0	0	0	21	81	17	344
8:30 AM	to	8:45 AM	21	89	0	0	104	11	0	0	0	19	77	17	338
8:45 AM	to	9:00 AM	21	93	0	0	97	8	0	0	0	29	64	13	325
HOURLY TOTALS															
7:00 AM	to	8:00 AM	92	265	0	0	235	33	0	0	0	51	198	62	936
7:15 AM	to	8:15 AM	100	303	0	0	285	31	0	0	0	57	235	64	1075
7:30 AM	to	8:30 AM	102	346	0	0	332	32	0	0	0	64	281	67	1224
7:45 AM	to	8:45 AM	100	358	0	0	375	38	0	0	0	68	301	65	1305
8:00 AM	to	9:00 AM	92	365	0	0	393	35	0	0	0	86	296	63	1330
PEAK HOUR SUMMARY															
8:00 AM	to	9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			92	365	0	0	393	35	0	0	0	86	296	63	1330
PHF BY MOVEMENT			0.85	0.97	0.00	0.00	0.94	0.80	0.00	0.00	0.00	0.74	0.91	0.93	OVERALL
PHF BY APPROACH			0.98			0.93			0.00			0.93			0.97
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

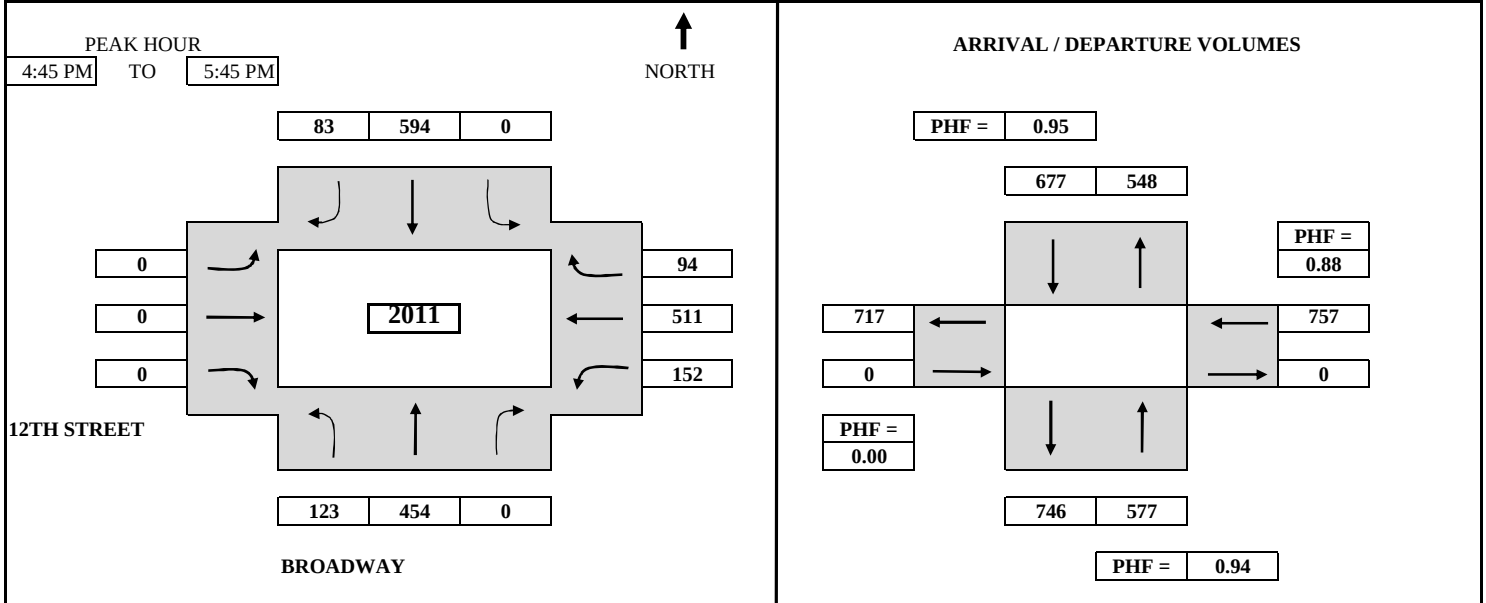
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: BROADWAY		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 12TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-8PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	13	108		139	7				35	99	17	418	
4:15 PM	to	4:30 PM	30	219		284	16				68	196	36	849	
4:30 PM	to	4:45 PM	51	336		435	27				91	317	57	1314	
4:45 PM	to	5:00 PM	73	442		597	44				119	431	80	1786	
5:00 PM	to	5:15 PM	108	554		734	62				175	563	108	2304	
5:15 PM	to	5:30 PM	147	669		877	85				214	707	134	2833	
5:30 PM	to	5:45 PM	174	790		1029	110				243	828	151	3325	
5:45 PM	to	6:00 PM	199	894		1155	128				276	932	166	3750	
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	13	108	0	0	139	7	0	0	0	35	99	17	418
4:15 PM	to	4:30 PM	17	111	0	0	145	9	0	0	0	33	97	19	431
4:30 PM	to	4:45 PM	21	117	0	0	151	11	0	0	0	23	121	21	465
4:45 PM	to	5:00 PM	22	106	0	0	162	17	0	0	0	28	114	23	472
5:00 PM	to	5:15 PM	35	112	0	0	137	18	0	0	0	56	132	28	518
5:15 PM	to	5:30 PM	39	115	0	0	143	23	0	0	0	39	144	26	529
5:30 PM	to	5:45 PM	27	121	0	0	152	25	0	0	0	29	121	17	492
5:45 PM	to	6:00 PM	25	104	0	0	126	18	0	0	0	33	104	15	425
HOURLY TOTALS															
4:00 PM	to	5:00 PM	73	442	0	0	597	44	0	0	0	119	431	80	1786
4:15 PM	to	5:15 PM	95	446	0	0	595	55	0	0	0	140	464	91	1886
4:30 PM	to	5:30 PM	117	450	0	0	593	69	0	0	0	146	511	98	1984
4:45 PM	to	5:45 PM	123	454	0	0	594	83	0	0	0	152	511	94	2011
5:00 PM	to	6:00 PM	126	452	0	0	558	84	0	0	0	157	501	86	1964
PEAK HOUR SUMMARY															
4:45 PM	to	5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			123	454	0	0	594	83	0	0	0	152	511	94	2011
PHF BY MOVEMENT			0.79	0.94	0.00	0.00	0.92	0.83	0.00	0.00	0.00	0.68	0.89	0.84	OVERALL
PHF BY APPROACH			0.94			0.95			0.00			0.88			0.95
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/14/2013				DAY: THURSDAY											
N-S APPROACH: BROADWAY				SURVEY TIME: 7:00 AM				TO 9:00 AM											
E-W APPROACH: 14TH STREET				JURISDICTION: OAKLAND				FILE: 3302018-6AM											
PEAK HOUR 8:00 AM to 9:00 AM 14TH STREET BROADWAY * No Left-Turn										ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF PHF = 0.89 565 449 PHF = 0.86 341 360 354 297 PHF = 0.89 571 379 PHF = 0.95									
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
From	To	U-TURN	LEFT*	THRU	RIGHT	U-TURN	LEFT*	THRU	RIGHT	U-TURN	LEFT*	THRU	RIGHT	U-TURN	LEFT*	THRU	RIGHT		
SURVEY DATA																			
7:00 AM	to 7:15 AM			44	5			0	36	3		0	22	13		0	39	4	166
7:15 AM	to 7:30 AM			114	9			2	95	10		0	50	28		0	79	10	397
7:30 AM	to 7:45 AM			198	13			2	171	19		0	101	39		0	116	25	684
7:45 AM	to 8:00 AM			288	16			2	270	35		1	154	55		0	160	42	1023
8:00 AM	to 8:15 AM			379	25			2	391	47		2	208	74		0	225	64	1417
8:15 AM	to 8:30 AM			472	31			2	510	58		4	277	91		0	290	83	1818
8:30 AM	to 8:45 AM			566	34			2	630	82		4	349	112		1	350	106	2236
8:45 AM	to 9:00 AM			643	40			2	762	108		4	427	133		1	428	133	2681
TOTAL BY PERIOD																			
7:00 AM	to 7:15 AM	0	0	44	5	0	0	36	3	0	0	22	13	0	0	39	4	166	
7:15 AM	to 7:30 AM	0	0	70	4	0	2	59	7	0	0	28	15	0	0	40	6	231	
7:30 AM	to 7:45 AM	0	0	84	4	0	0	76	9	0	0	51	11	0	0	37	15	287	
7:45 AM	to 8:00 AM	0	0	90	3	0	0	99	16	0	1	53	16	0	0	44	17	339	
8:00 AM	to 8:15 AM	0	0	91	9	0	0	121	12	0	1	54	19	0	0	65	22	394	
8:15 AM	to 8:30 AM	0	0	93	6	0	0	119	11	0	2	69	17	0	0	65	19	401	
8:30 AM	to 8:45 AM	0	0	94	3	0	0	120	24	0	0	72	21	0	1	60	23	418	
8:45 AM	to 9:00 AM	0	0	77	6	0	0	132	26	0	0	78	21	0	0	78	27	445	
HOURLY TOTALS																			
7:00 AM	to 8:00 AM	0	0	288	16	0	2	270	35	0	1	154	55	0	0	160	42	1023	
7:15 AM	to 8:15 AM	0	0	335	20	0	2	355	44	0	2	186	61	0	0	186	60	1251	
7:30 AM	to 8:30 AM	0	0	358	22	0	0	415	48	0	4	227	63	0	0	211	73	1421	
7:45 AM	to 8:45 AM	0	0	368	21	0	0	459	63	0	4	248	73	0	1	234	81	1552	
8:00 AM	to 9:00 AM	0	0	355	24	0	0	492	73	0	3	273	78	0	1	268	91	1658	
PEAK HOUR SUMMARY																			
8:00 AM	to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME		0	0	355	24	0	0	492	73	0	3	273	78	0	1	268	91	1658	
PHF BY MOVEMENT		0.00	0.00	0.94	0.67	0.00	0.00	0.93	0.70	0.00	0.38	0.88	0.93	0.00	0.25	0.86	0.84	OVERALL	
PHF BY APPROACH		0.95				0.89				0.89				0.86				0.93	
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272																			

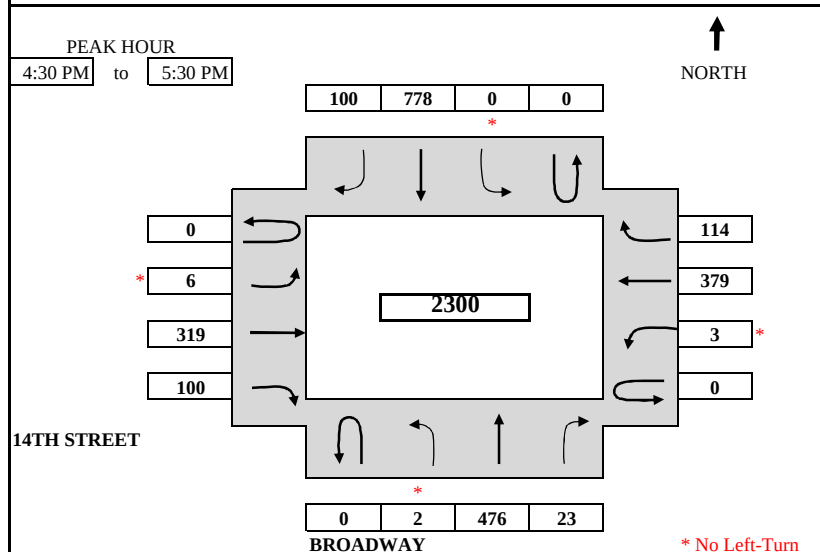
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	BROADWAY	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	14TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-6PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.86	
878	596
PHF = 0.89	
481	496
425	342
PHF = 0.85	
881	501
PHF = 0.96	

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT*	THRU	RIGHT	U-TURN	LEFT*	THRU	RIGHT	U-TURN	LEFT*	THRU	RIGHT	U-TURN	LEFT*	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM	1	123	6				171	13	2	75	25		0	80	19		515
4:15 PM	to 4:30 PM	1	212	12				346	41	3	147	52		1	171	43		1029
4:30 PM	to 4:45 PM	1	326	16				550	59	4	206	80		3	264	72		1581
4:45 PM	to 5:00 PM	1	443	22				729	82	6	276	102		3	350	96		2110
5:00 PM	to 5:15 PM	3	567	26				902	109	6	370	133		3	442	126		2687
5:15 PM	to 5:30 PM	3	688	35				1124	141	9	466	152		4	550	157		3329
5:30 PM	to 5:45 PM	3	798	44				1298	152	9	524	174		7	631	175		3815
5:45 PM	to 6:00 PM	3	894	53				1465	166	10	607	203		8	704	191		4304

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	1	123	6	0	0	171	13	0	2	75	25	0	0	80	19	515
4:15 PM	to 4:30 PM	0	0	89	6	0	0	175	28	0	1	72	27	0	1	91	24	514
4:30 PM	to 4:45 PM	0	0	114	4	0	0	204	18	0	1	59	28	0	2	93	29	552
4:45 PM	to 5:00 PM	0	0	117	6	0	0	179	23	0	2	70	22	0	0	86	24	529
5:00 PM	to 5:15 PM	0	2	124	4	0	0	173	27	0	0	94	31	0	0	92	30	577
5:15 PM	to 5:30 PM	0	0	121	9	0	0	222	32	0	3	96	19	0	1	108	31	642
5:30 PM	to 5:45 PM	0	0	110	9	0	0	174	11	0	0	58	22	0	3	81	18	486
5:45 PM	to 6:00 PM	0	0	96	9	0	0	167	14	0	1	83	29	0	1	73	16	489

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	1	443	22	0	0	729	82	0	6	276	102	0	3	350	96	2110
4:15 PM	to 5:15 PM	0	2	444	20	0	0	731	96	0	4	295	108	0	3	362	107	2172
4:30 PM	to 5:30 PM	0	2	476	23	0	0	778	100	0	6	319	100	0	3	379	114	2300
4:45 PM	to 5:45 PM	0	2	472	28	0	0	748	93	0	5	318	94	0	4	367	103	2234
5:00 PM	to 6:00 PM	0	2	451	31	0	0	736	84	0	4	331	101	0	5	354	95	2194

PEAK HOUR SUMMARY																		
4:30 PM	to 5:30 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	2	476	23	0	0	778	100	0	6	319	100	0	3	379	114	2300
PHF BY MOVEMENT		0.00	0.25	0.96	0.64	0.00	0.00	0.88	0.78	0.00	0.50	0.83	0.81	0.00	0.38	0.88	0.92	OVERALL
PHF BY APPROACH		0.96				0.86				0.85				0.89				0.90

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/14/2013				DAY: THURSDAY			
N-S APPROACH: FRANKLIN STREET				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH: 2ND STREET				JURISDICTION: OAKLAND				FILE: 3302018-7AM			

PEAK HOUR
8:00 AM to 9:00 AM

NORTH

2ND STREET

FRANKLIN STREET

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.70

28 0

PHF = 0.76

62 64

41 38

PHF = 0.68

33 0

PHF = 0.00

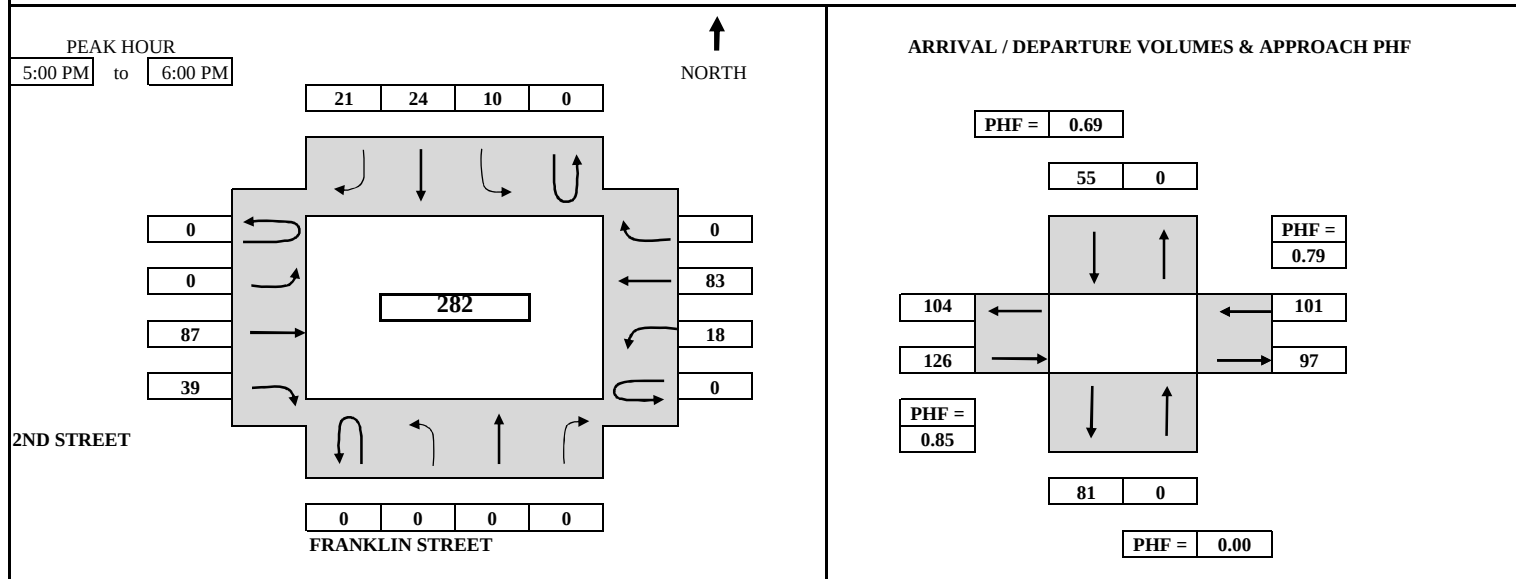
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM					2	0	2		2	1	3		2	2			14
7:15 AM	to 7:30 AM					5	1	3		3	8	4		2	8			34
7:30 AM	to 7:45 AM					9	2	4		3	14	5		5	16			58
7:45 AM	to 8:00 AM					13	2	9		3	22	9		10	26			94
8:00 AM	to 8:15 AM					16	3	11		3	28	12		11	33			117
8:15 AM	to 8:30 AM					17	7	13		3	31	16		11	48			146
8:30 AM	to 8:45 AM					19	8	15		3	37	20		16	63			181
8:45 AM	to 9:00 AM					25	8	19		3	48	24		22	78			227
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	0	0	0	2	0	2	0	2	1	3	0	2	2	0	14
7:15 AM	to 7:30 AM	0	0	0	0	0	3	1	1	0	1	7	1	0	0	6	0	20
7:30 AM	to 7:45 AM	0	0	0	0	0	4	1	1	0	0	6	1	0	3	8	0	24
7:45 AM	to 8:00 AM	0	0	0	0	0	4	0	5	0	0	8	4	0	5	10	0	36
8:00 AM	to 8:15 AM	0	0	0	0	0	3	1	2	0	0	6	3	0	1	7	0	23
8:15 AM	to 8:30 AM	0	0	0	0	0	1	4	2	0	0	3	4	0	0	15	0	29
8:30 AM	to 8:45 AM	0	0	0	0	0	2	1	2	0	0	6	4	0	5	15	0	35
8:45 AM	to 9:00 AM	0	0	0	0	0	6	0	4	0	0	11	4	0	6	15	0	46
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	0	0	0	13	2	9	0	3	22	9	0	10	26	0	94
7:15 AM	to 8:15 AM	0	0	0	0	0	14	3	9	0	1	27	9	0	9	31	0	103
7:30 AM	to 8:30 AM	0	0	0	0	0	12	6	10	0	0	23	12	0	9	40	0	112
7:45 AM	to 8:45 AM	0	0	0	0	0	10	6	11	0	0	23	15	0	11	47	0	123
8:00 AM	to 9:00 AM	0	0	0	0	0	12	6	10	0	0	26	15	0	12	52	0	133
PEAK HOUR SUMMARY																		
8:00 AM	to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
		0	0	0	0	0	12	6	10	0	0	26	15	0	12	52	0	133
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.50	0.38	0.63	0.00	0.00	0.59	0.94	0.00	0.50	0.87	0.00	OVERALL
PHF BY APPROACH		0.00				0.70				0.68				0.76				0.72

TEL: (510) 232 - 1271
FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	FRANKLIN STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	2ND STREET	JURISDICTION:	OAKLAND	FILE:	3302018-7PM



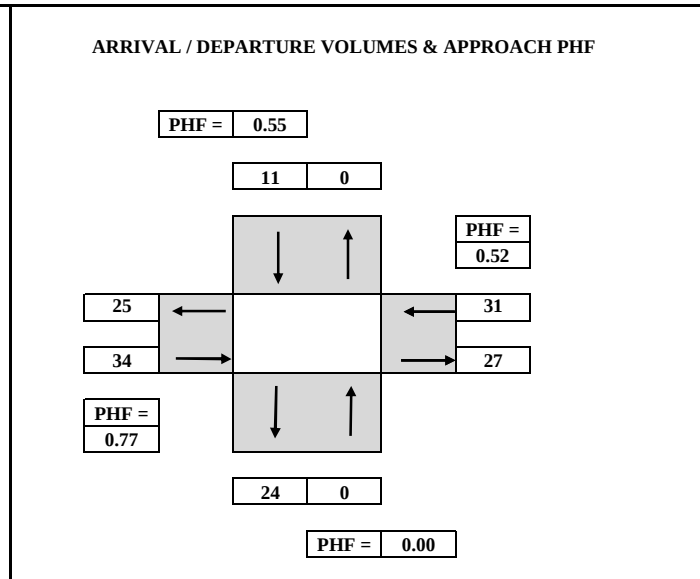
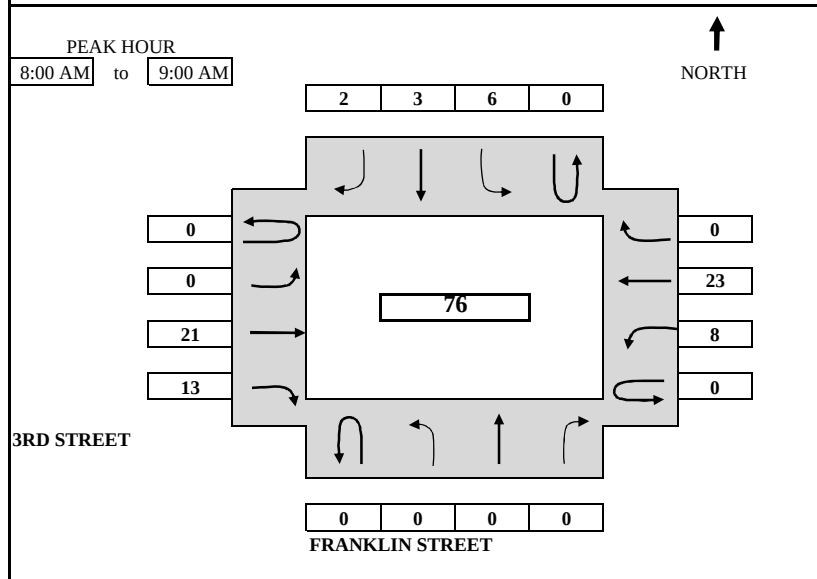
TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM					1	4	0		13	7			1	12			38
4:15 PM	to 4:30 PM					3	7	3		24	15			8	34			94
4:30 PM	to 4:45 PM					9	13	10		38	26			14	47			157
4:45 PM	to 5:00 PM					10	21	13		48	36			14	55			197
5:00 PM	to 5:15 PM					10	26	15		67	45			23	78			264
5:15 PM	to 5:30 PM					11	38	21		97	51			25	103			346
5:30 PM	to 5:45 PM					16	43	31		114	59			31	126			420
5:45 PM	to 6:00 PM					20	45	34		135	75			32	138			479
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	0	0	0	1	4	0	0	0	13	7	0	1	12	0	38
4:15 PM	to 4:30 PM	0	0	0	0	0	2	3	3	0	0	11	8	0	7	22	0	56
4:30 PM	to 4:45 PM	0	0	0	0	0	6	6	7	0	0	14	11	0	6	13	0	63
4:45 PM	to 5:00 PM	0	0	0	0	0	1	8	3	0	0	10	10	0	0	8	0	40
5:00 PM	to 5:15 PM	0	0	0	0	0	0	5	2	0	0	19	9	0	9	23	0	67
5:15 PM	to 5:30 PM	0	0	0	0	0	1	12	6	0	0	30	6	0	2	25	0	82
5:30 PM	to 5:45 PM	0	0	0	0	0	5	5	10	0	0	17	8	0	6	23	0	74
5:45 PM	to 6:00 PM	0	0	0	0	0	4	2	3	0	0	21	16	0	1	12	0	59
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	0	0	0	10	21	13	0	0	48	36	0	14	55	0	197
4:15 PM	to 5:15 PM	0	0	0	0	0	9	22	15	0	0	54	38	0	22	66	0	226
4:30 PM	to 5:30 PM	0	0	0	0	0	8	31	18	0	0	73	36	0	17	69	0	252
4:45 PM	to 5:45 PM	0	0	0	0	0	7	30	21	0	0	76	33	0	17	79	0	263
5:00 PM	to 6:00 PM	0	0	0	0	0	10	24	21	0	0	87	39	0	18	83	0	282
PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	0	0	0	10	24	21	0	0	87	39	0	18	83	0	282
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.50	0.50	0.53	0.00	0.00	0.73	0.61	0.00	0.50	0.83	0.00	OVERALL
PHF BY APPROACH		0.00				0.69				0.85				0.79				0.86

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B . A . Y . M . E . T . R . I . C . S .

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	FRANKLIN STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	3RD STREET	JURISDICTION:	OAKLAND	FILE:	3302018-8AM



TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To		U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
7:00 AM	to	7:15 AM					10				4				2				9
7:15 AM	to	7:30 AM					20				8				3				17
7:30 AM	to	7:45 AM					20				10				4				28
7:45 AM	to	8:00 AM					30				14				9				51
8:00 AM	to	8:15 AM					30				19				11				62
8:15 AM	to	8:30 AM					50				25				14				78
8:30 AM	to	8:45 AM					81				29				14				100
8:45 AM	to	9:00 AM					93				35				17				127

								TOTAL BY PERIOD												
7:00 AM	to	7:15 AM		0	0	0	0	0	1	0	0	0	0	4	1	0	2	1	0	9
7:15 AM	to	7:30 AM		0	0	0	0	0	1	0	0	0	0	4	1	0	1	1	0	8
7:30 AM	to	7:45 AM		0	0	0	0	0	0	0	0	0	0	2	3	0	1	5	0	11
7:45 AM	to	8:00 AM		0	0	0	0	0	1	0	2	0	0	4	3	0	5	8	0	23
8:00 AM	to	8:15 AM		0	0	0	0	0	0	0	0	0	0	5	2	0	2	2	0	11
8:15 AM	to	8:30 AM		0	0	0	0	0	2	0	1	0	0	6	1	0	3	3	0	16
8:30 AM	to	8:45 AM		0	0	0	0	0	3	1	1	0	0	4	7	0	0	6	0	22
8:45 AM	to	9:00 AM		0	0	0	0	0	1	2	0	0	0	6	3	0	3	12	0	27

								HOURLY TOTALS												
7:00 AM	to	8:00 AM	0	0	0	0	0	3	0	2	0	0	14	8	0	9	15	0	51	
7:15 AM	to	8:15 AM	0	0	0	0	0	2	0	2	0	0	15	9	0	9	16	0	53	
7:30 AM	to	8:30 AM	0	0	0	0	0	3	0	3	0	0	17	9	0	11	18	0	61	
7:45 AM	to	8:45 AM	0	0	0	0	0	6	1	4	0	0	19	13	0	10	19	0	72	
8:00 AM	to	9:00 AM	0	0	0	0	0	6	3	2	0	0	21	13	0	8	23	0	76	

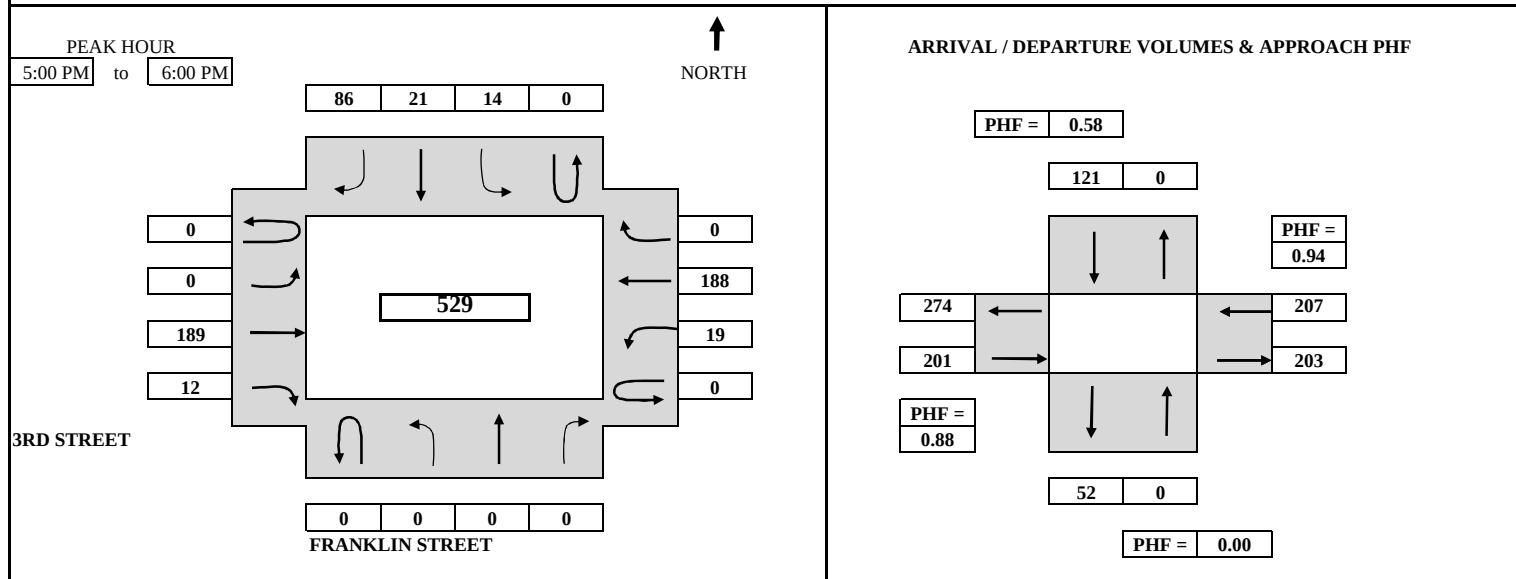
PEAK HOUR SUMMARY																		
8:00 AM to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME	0	0	0	0	0	6	3	2	0	0	21	13	0	8	23	0	76	
PHF BY MOVEMENT	0.00	0.00	0.00	0.00	0.00	0.50	0.38	0.50	0.00	0.00	0.88	0.46	0.00	0.67	0.48	0.00	OVERALL	
PHF BY APPROACH	0.00				0.55				0.77				0.52				0.70	

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	FRANKLIN STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	3RD STREET	JURISDICTION:	OAKLAND	FILE:	3302018-8PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM					0	3	1		15	3			0	17			39
4:15 PM	to 4:30 PM					1	8	1		26	4			1	27			68
4:30 PM	to 4:45 PM					2	18	7		71	15			4	66			183
4:45 PM	to 5:00 PM					3	23	8		104	18			5	103			264
5:00 PM	to 5:15 PM					4	26	22		155	19			9	154			389
5:15 PM	to 5:30 PM					8	31	58		205	26			16	199			543
5:30 PM	to 5:45 PM					17	41	91		258	28			22	248			705
5:45 PM	to 6:00 PM					17	44	94		293	30			24	291			793
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	0	0	0	0	3	1	0	0	15	3	0	0	17	0	39
4:15 PM	to 4:30 PM	0	0	0	0	0	1	5	0	0	0	11	1	0	1	10	0	29
4:30 PM	to 4:45 PM	0	0	0	0	0	1	10	6	0	0	45	11	0	3	39	0	115
4:45 PM	to 5:00 PM	0	0	0	0	0	1	5	1	0	0	33	3	0	1	37	0	81
5:00 PM	to 5:15 PM	0	0	0	0	0	1	3	14	0	0	51	1	0	4	51	0	125
5:15 PM	to 5:30 PM	0	0	0	0	0	4	5	36	0	0	50	7	0	7	45	0	154
5:30 PM	to 5:45 PM	0	0	0	0	0	9	10	33	0	0	53	2	0	6	49	0	162
5:45 PM	to 6:00 PM	0	0	0	0	0	0	3	3	0	0	35	2	0	2	43	0	88
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	0	0	0	3	23	8	0	0	104	18	0	5	103	0	264
4:15 PM	to 5:15 PM	0	0	0	0	0	4	23	21	0	0	140	16	0	9	137	0	350
4:30 PM	to 5:30 PM	0	0	0	0	0	7	23	57	0	0	179	22	0	15	172	0	475
4:45 PM	to 5:45 PM	0	0	0	0	0	15	23	84	0	0	187	13	0	18	182	0	522
5:00 PM	to 6:00 PM	0	0	0	0	0	14	21	86	0	0	189	12	0	19	188	0	529
PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	0	0	0	14	21	86	0	0	189	12	0	19	188	0	529
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.39	0.53	0.60	0.00	0.00	0.89	0.43	0.00	0.68	0.92	0.00	OVERALL
PHF BY APPROACH		0.00				0.58				0.88				0.94				0.82

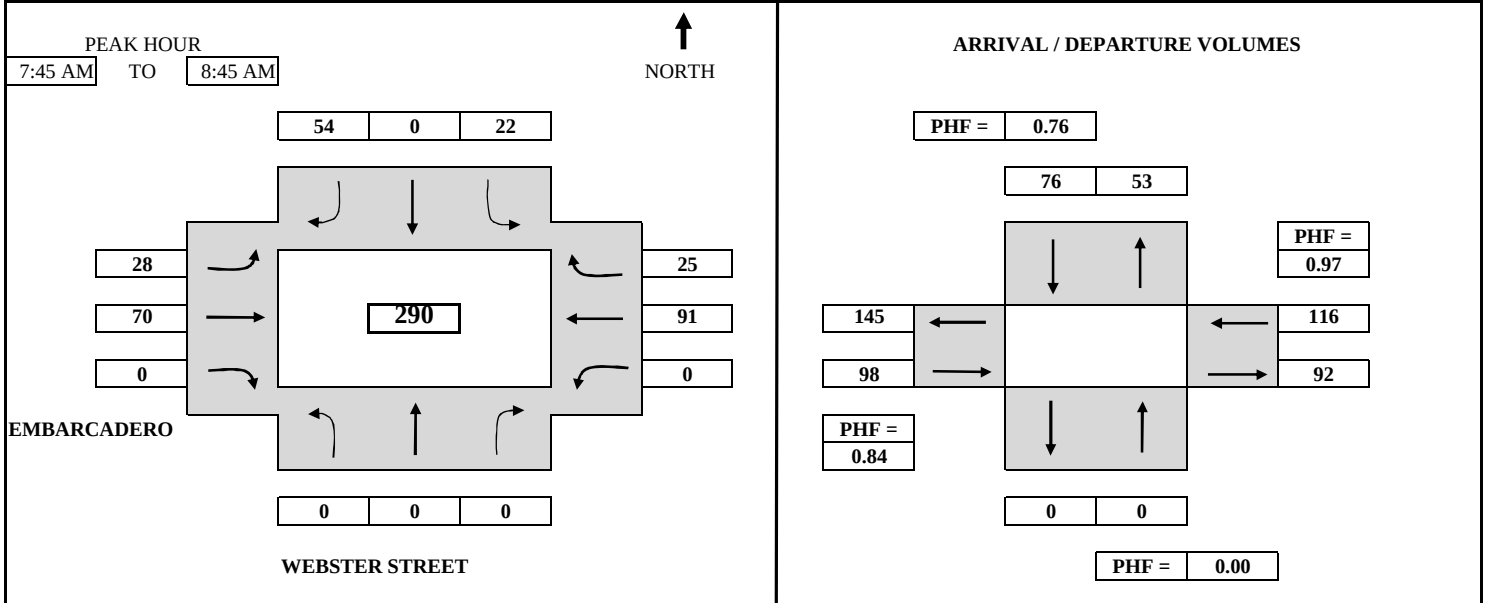
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH:	WEBSTER STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	EMBARCADERO	JURISDICTION:	OAKLAND	FILE:	3301002-9AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM				3	8		7	14		5		1	38
7:15 AM	to	7:30 AM				6	11		16	22		17		2	74
7:30 AM	to	7:45 AM				8	22		24	33		38		5	130
7:45 AM	to	8:00 AM				12	38		29	43		63		10	195
8:00 AM	to	8:15 AM				16	47		35	62		87		15	262
8:15 AM	to	8:30 AM				25	63		40	86		108		21	343
8:30 AM	to	8:45 AM				30	76		52	103		129		30	420
8:45 AM	to	9:00 AM				32	85		60	116		156		34	483
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	0	0	0	3	0	8	7	14	0	0	5	1	38
7:15 AM	to	7:30 AM	0	0	0	3	0	3	9	8	0	0	12	1	36
7:30 AM	to	7:45 AM	0	0	0	2	0	11	8	11	0	0	21	3	56
7:45 AM	to	8:00 AM	0	0	0	4	0	16	5	10	0	0	25	5	65
8:00 AM	to	8:15 AM	0	0	0	4	0	9	6	19	0	0	24	5	67
8:15 AM	to	8:30 AM	0	0	0	9	0	16	5	24	0	0	21	6	81
8:30 AM	to	8:45 AM	0	0	0	5	0	13	12	17	0	0	21	9	77
8:45 AM	to	9:00 AM	0	0	0	2	0	9	8	13	0	0	27	4	63
HOURLY TOTALS															
7:00 AM	to	8:00 AM	0	0	0	12	0	38	29	43	0	0	63	10	195
7:15 AM	to	8:15 AM	0	0	0	13	0	39	28	48	0	0	82	14	224
7:30 AM	to	8:30 AM	0	0	0	19	0	52	24	64	0	0	91	19	269
7:45 AM	to	8:45 AM	0	0	0	22	0	54	28	70	0	0	91	25	290
8:00 AM	to	9:00 AM	0	0	0	20	0	47	31	73	0	0	93	24	288
PEAK HOUR SUMMARY															
7:45 AM	to	8:45 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	0	0	22	0	54	28	70	0	0	91	25	290
PHF BY MOVEMENT			0.00	0.00	0.00	0.61	0.00	0.84	0.58	0.73	0.00	0.00	0.91	0.69	OVERALL
PHF BY APPROACH			0.00			0.76			0.84			0.97			0.90
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

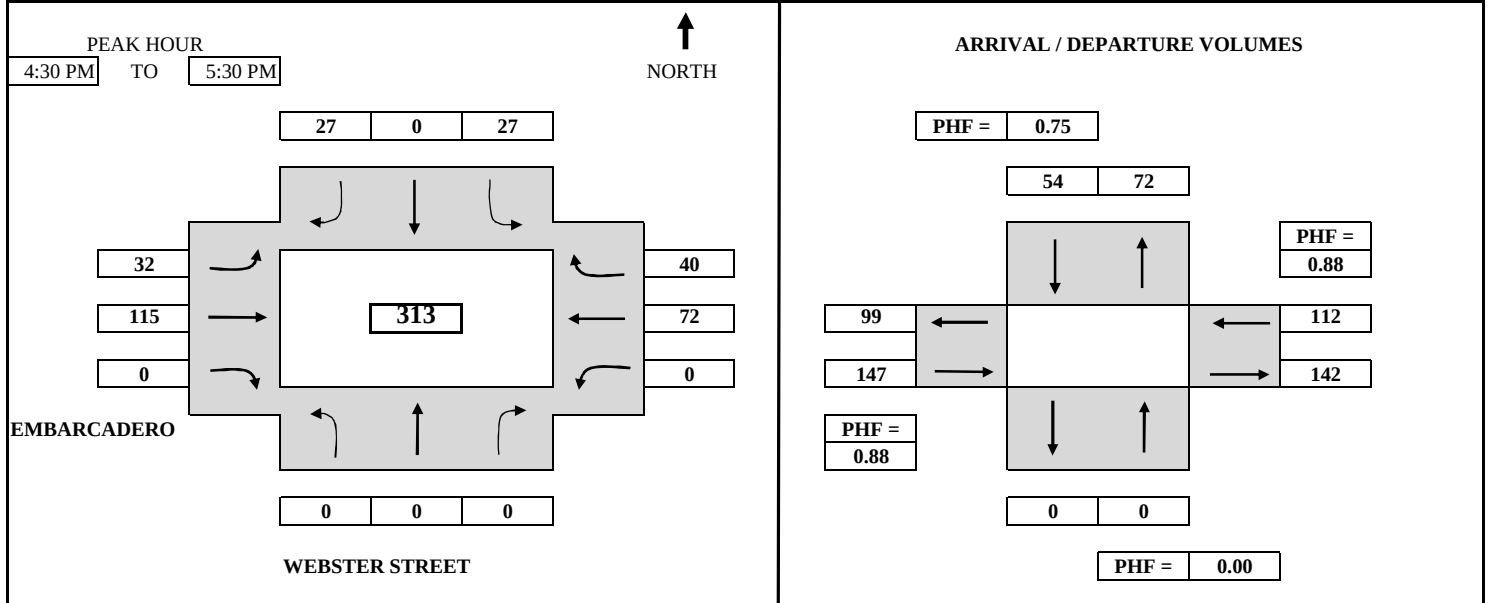
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: WEBSTER STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH EMBARCADERO		JURISDICTION: OAKLAND		FILE:	3301002-9PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM				7		6	12	28		16	7	76	
4:15 PM	to	4:30 PM				12		13	16	57		33	16	147	
4:30 PM	to	4:45 PM				15		17	24	91		52	26	225	
4:45 PM	to	5:00 PM				26		24	30	125		65	34	304	
5:00 PM	to	5:15 PM				33		28	39	146		87	44	377	
5:15 PM	to	5:30 PM				39		40	48	172		105	56	460	
5:30 PM	to	5:45 PM				42		44	57	199		124	64	530	
5:45 PM	to	6:00 PM				48		50	63	229		142	71	603	
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	0	0	0	7	0	6	12	28	0	0	16	7	76
4:15 PM	to	4:30 PM	0	0	0	5	0	7	4	29	0	0	17	9	71
4:30 PM	to	4:45 PM	0	0	0	3	0	4	8	34	0	0	19	10	78
4:45 PM	to	5:00 PM	0	0	0	11	0	7	6	34	0	0	13	8	79
5:00 PM	to	5:15 PM	0	0	0	7	0	4	9	21	0	0	22	10	73
5:15 PM	to	5:30 PM	0	0	0	6	0	12	9	26	0	0	18	12	83
5:30 PM	to	5:45 PM	0	0	0	3	0	4	9	27	0	0	19	8	70
5:45 PM	to	6:00 PM	0	0	0	6	0	6	6	30	0	0	18	7	73
HOURLY TOTALS															
4:00 PM	to	5:00 PM	0	0	0	26	0	24	30	125	0	0	65	34	304
4:15 PM	to	5:15 PM	0	0	0	26	0	22	27	118	0	0	71	37	301
4:30 PM	to	5:30 PM	0	0	0	27	0	27	32	115	0	0	72	40	313
4:45 PM	to	5:45 PM	0	0	0	27	0	27	33	108	0	0	72	38	305
5:00 PM	to	6:00 PM	0	0	0	22	0	26	33	104	0	0	77	37	299
PEAK HOUR SUMMARY															
4:30 PM	to	5:30 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	0	0	27	0	27	32	115	0	0	72	40	313
PHF BY MOVEMENT			0.00	0.00	0.00	0.61	0.00	0.56	0.89	0.85	0.00	0.00	0.82	0.83	OVERALL
PHF BY APPROACH			0.00			0.75			0.88			0.88			0.94
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

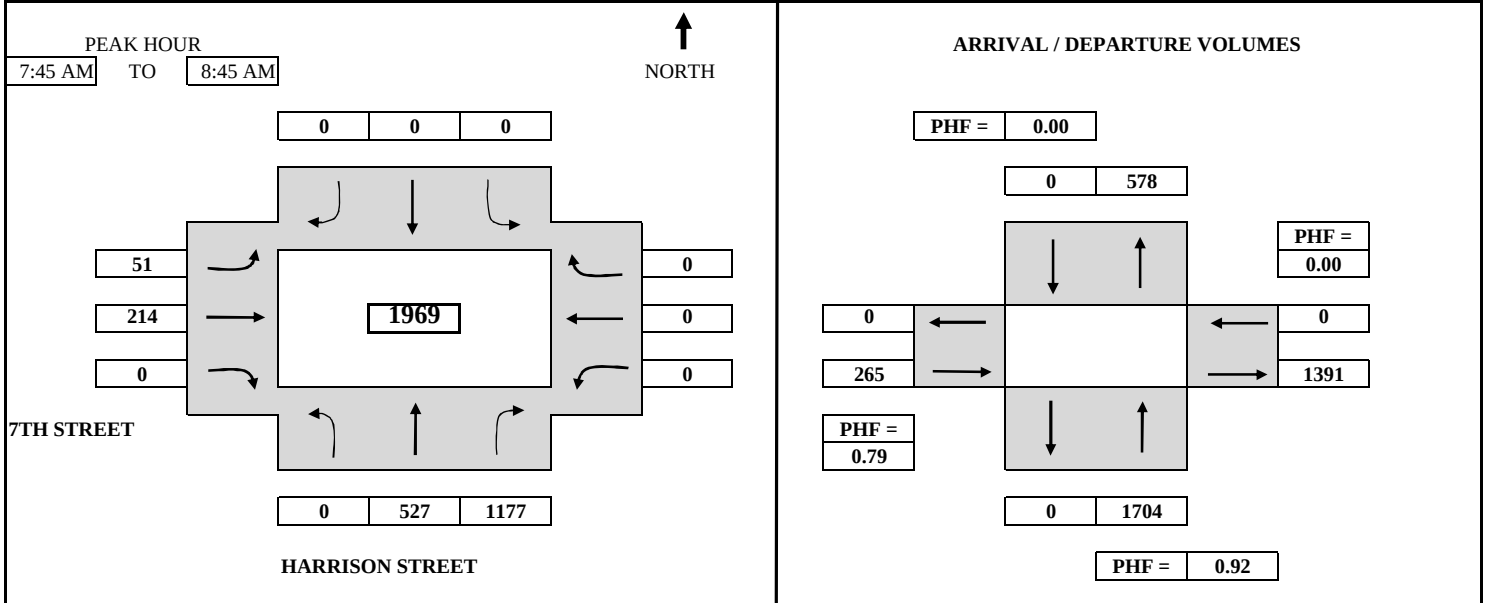
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: HARRISON STREET		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH 7TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-10AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	69	321					3	27				420	
7:15 AM	to	7:30 AM	154	658					8	58				878	
7:30 AM	to	7:45 AM	233	965					16	94				1308	
7:45 AM	to	8:00 AM	330	1333					27	129				1819	
8:00 AM	to	8:15 AM	448	1607					43	192				2290	
8:15 AM	to	8:30 AM	584	1865					58	261				2768	
8:30 AM	to	8:45 AM	760	2142					67	308				3277	
8:45 AM	to	9:00 AM	905	2451					71	359				3786	
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	0	69	321	0	0	0	3	27	0	0	0	420	
7:15 AM	to	7:30 AM	0	85	337	0	0	0	5	31	0	0	0	458	
7:30 AM	to	7:45 AM	0	79	307	0	0	0	8	36	0	0	0	430	
7:45 AM	to	8:00 AM	0	97	368	0	0	0	11	35	0	0	0	511	
8:00 AM	to	8:15 AM	0	118	274	0	0	0	16	63	0	0	0	471	
8:15 AM	to	8:30 AM	0	136	258	0	0	0	15	69	0	0	0	478	
8:30 AM	to	8:45 AM	0	176	277	0	0	0	9	47	0	0	0	509	
8:45 AM	to	9:00 AM	0	145	309	0	0	0	4	51	0	0	0	509	
HOURLY TOTALS															
7:00 AM	to	8:00 AM	0	330	1333	0	0	0	27	129	0	0	0	1819	
7:15 AM	to	8:15 AM	0	379	1286	0	0	0	40	165	0	0	0	1870	
7:30 AM	to	8:30 AM	0	430	1207	0	0	0	50	203	0	0	0	1890	
7:45 AM	to	8:45 AM	0	527	1177	0	0	0	51	214	0	0	0	1969	
8:00 AM	to	9:00 AM	0	575	1118	0	0	0	44	230	0	0	0	1967	
PEAK HOUR SUMMARY															
7:45 AM	to	8:45 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	527	1177	0	0	0	51	214	0	0	0	0	1969
PHF BY MOVEMENT			0.00	0.75	0.80	0.00	0.00	0.00	0.80	0.78	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.92			0.00			0.79			0.00			0.96
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

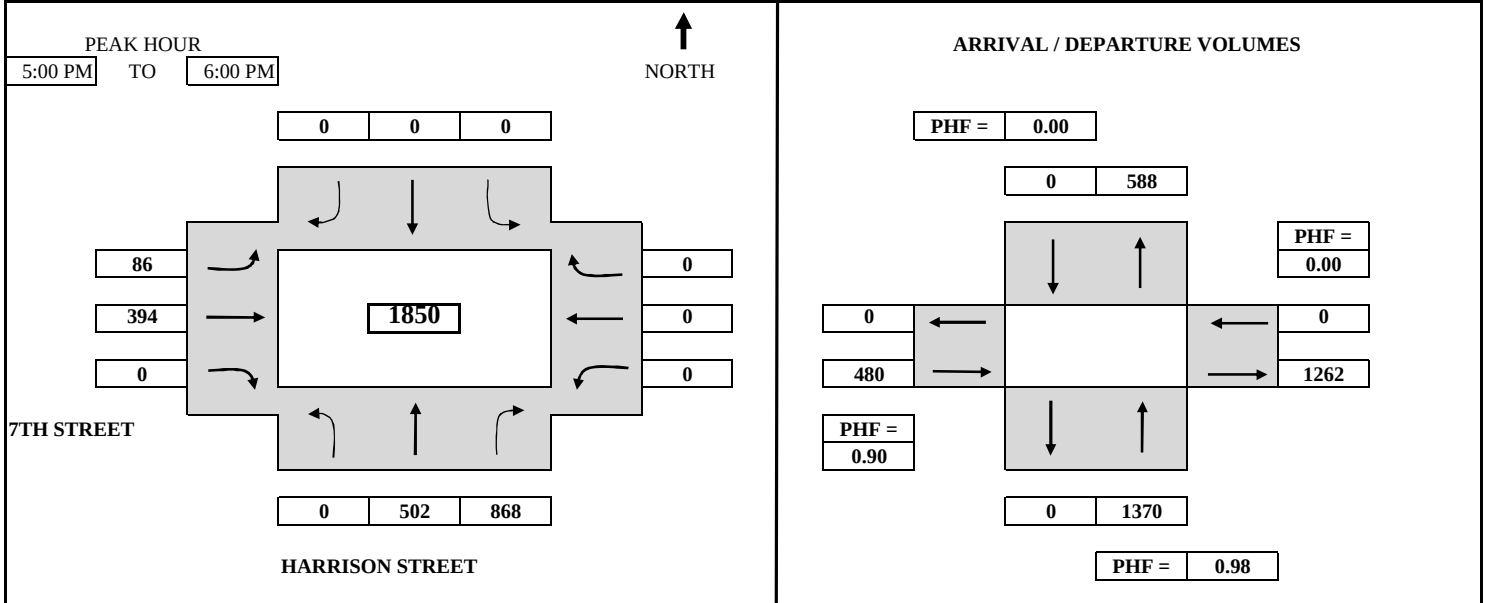
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: HARRISON STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 7TH STREET		JURISDICTION:	OAKLAND	FILE:	3301002-10PM



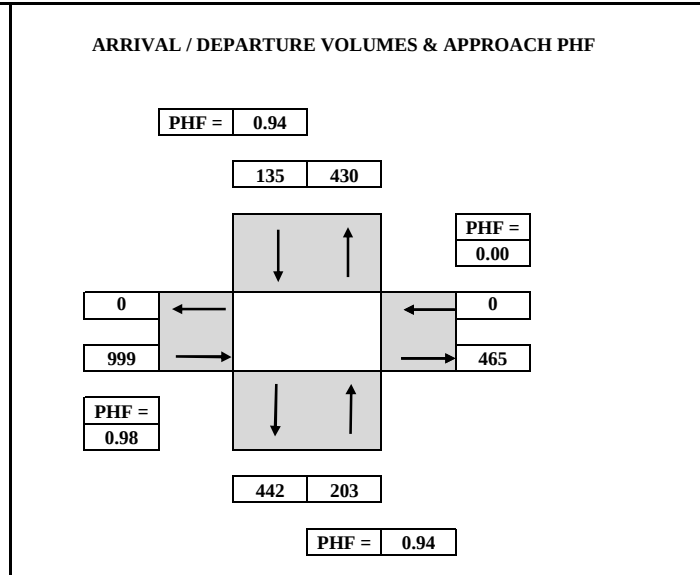
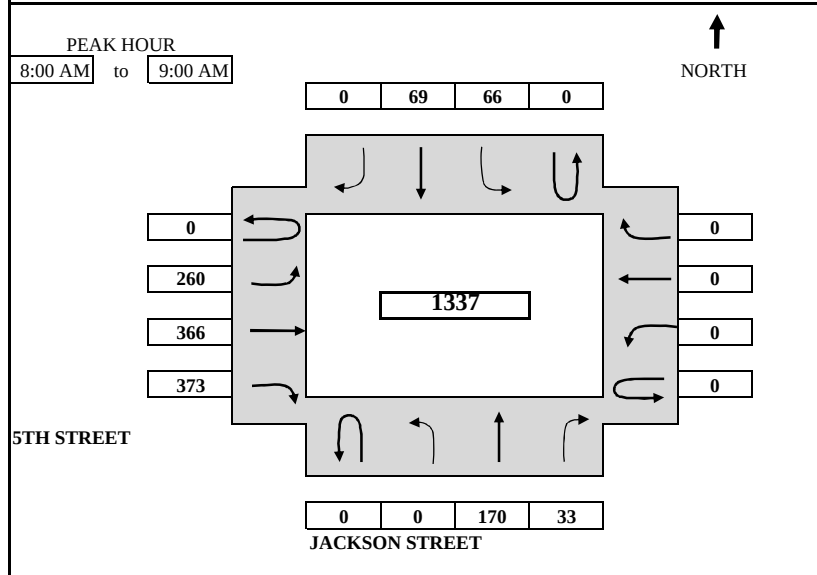
TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	97	199					29	103				428	
4:15 PM	to	4:30 PM	228	403					58	222				911	
4:30 PM	to	4:45 PM	342	577					85	316				1320	
4:45 PM	to	5:00 PM	449	746					111	415				1721	
5:00 PM	to	5:15 PM	572	959					132	527				2190	
5:15 PM	to	5:30 PM	706	1175					155	628				2664	
5:30 PM	to	5:45 PM	838	1380					174	725				3117	
5:45 PM	to	6:00 PM	951	1614					197	809				3571	
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	0	97	199	0	0	0	29	103	0	0	0	428	
4:15 PM	to	4:30 PM	0	131	204	0	0	0	29	119	0	0	0	483	
4:30 PM	to	4:45 PM	0	114	174	0	0	0	27	94	0	0	0	409	
4:45 PM	to	5:00 PM	0	107	169	0	0	0	26	99	0	0	0	401	
5:00 PM	to	5:15 PM	0	123	213	0	0	0	21	112	0	0	0	469	
5:15 PM	to	5:30 PM	0	134	216	0	0	0	23	101	0	0	0	474	
5:30 PM	to	5:45 PM	0	132	205	0	0	0	19	97	0	0	0	453	
5:45 PM	to	6:00 PM	0	113	234	0	0	0	23	84	0	0	0	454	
HOURLY TOTALS															
4:00 PM	to	5:00 PM	0	449	746	0	0	0	111	415	0	0	0	1721	
4:15 PM	to	5:15 PM	0	475	760	0	0	0	103	424	0	0	0	1762	
4:30 PM	to	5:30 PM	0	478	772	0	0	0	97	406	0	0	0	1753	
4:45 PM	to	5:45 PM	0	496	803	0	0	0	89	409	0	0	0	1797	
5:00 PM	to	6:00 PM	0	502	868	0	0	0	86	394	0	0	0	1850	
PEAK HOUR SUMMARY															
5:00 PM	to	6:00 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	502	868	0	0	0	86	394	0	0	0	0	1850
PHF BY MOVEMENT			0.00	0.94	0.93	0.00	0.00	0.00	0.93	0.88	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.98			0.00			0.90			0.00			0.98
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B . A . Y . M . E . T . R . I . C . S .

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	JACKSON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	5TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-9AM



TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To		U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
7:00 AM	to	7:15 AM	33 5				17 10				49 51 79								244
7:15 AM	to	7:30 AM	68 11				36 20				110 98 154								497
7:30 AM	to	7:45 AM	107 19				54 29				169 171 232								781
7:45 AM	to	8:00 AM	158 26				79 44				233 255 321								1116
8:00 AM	to	8:15 AM	201 35				100 57				302 346 412								1453
8:15 AM	to	8:30 AM	236 44				117 75				364 433 505								1774
8:30 AM	to	8:45 AM	283 51				130 92				426 526 602								2110
8:45 AM	to	9:00 AM	328 59				145 113				493 621 694								2453

							TOTAL BY PERIOD												
7:00 AM	to	7:15 AM	0	0	33	5	0	17	10	0	0	49	51	79	0	0	0	0	244
7:15 AM	to	7:30 AM	0	0	35	6	0	19	10	0	0	61	47	75	0	0	0	0	253
7:30 AM	to	7:45 AM	0	0	39	8	0	18	9	0	0	59	73	78	0	0	0	0	284
7:45 AM	to	8:00 AM	0	0	51	7	0	25	15	0	0	64	84	89	0	0	0	0	335
8:00 AM	to	8:15 AM	0	0	43	9	0	21	13	0	0	69	91	91	0	0	0	0	337
8:15 AM	to	8:30 AM	0	0	35	9	0	17	18	0	0	62	87	93	0	0	0	0	321
8:30 AM	to	8:45 AM	0	0	47	7	0	13	17	0	0	62	93	97	0	0	0	0	336
8:45 AM	to	9:00 AM	0	0	45	8	0	15	21	0	0	67	95	92	0	0	0	0	343

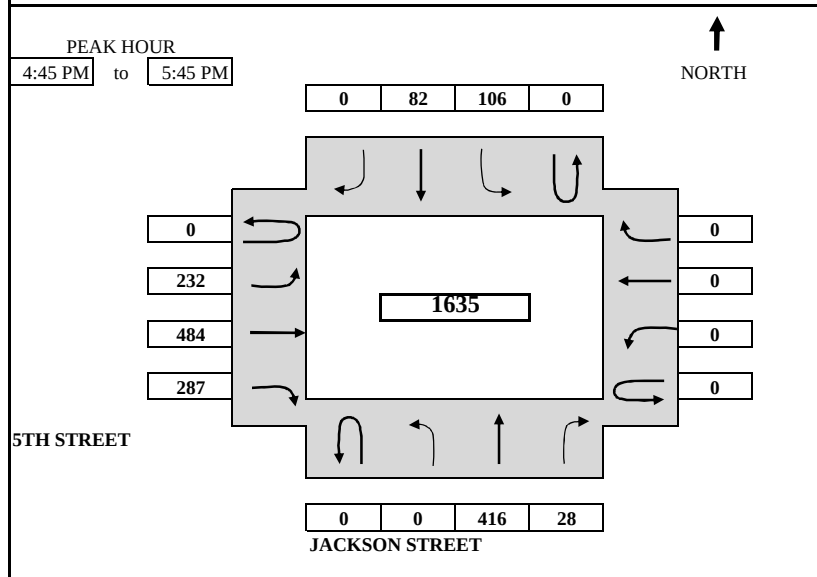
				HOURLY TOTALS															
7:00 AM	to	8:00 AM	0	0	158	26	0	79	44	0	0	233	255	321	0	0	0	0	1116
7:15 AM	to	8:15 AM	0	0	168	30	0	83	47	0	0	253	295	333	0	0	0	0	1209
7:30 AM	to	8:30 AM	0	0	168	33	0	81	55	0	0	254	335	351	0	0	0	0	1277
7:45 AM	to	8:45 AM	0	0	176	32	0	76	63	0	0	257	355	370	0	0	0	0	1329
8:00 AM	to	9:00 AM	0	0	170	33	0	66	69	0	0	260	366	373	0	0	0	0	1337

PEAK HOUR SUMMARY																		
8:00 AM to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME	0	0	170	33	0	66	69	0	0	260	366	373	0	0	0	0	1337	
PHF BY MOVEMENT	0.00	0.00	0.90	0.92	0.00	0.79	0.82	0.00	0.00	0.94	0.96	0.96	0.00	0.00	0.00	0.00	OVERALL	
PHF BY APPROACH	0.94				0.94				0.98				0.00				0.97	

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	JACKSON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	5TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-9PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To		U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																			
4:00 PM	to	4:15 PM	67 7				37 19				45 89 71								335
4:15 PM	to	4:30 PM	128 16				68 34				97 180 148								671
4:30 PM	to	4:45 PM	204 23				97 55				162 282 222								1045
4:45 PM	to	5:00 PM	287 29				130 78				235 403 311								1473
5:00 PM	to	5:15 PM	385 38				151 95				294 540 378								1881
5:15 PM	to	5:30 PM	496 46				178 114				335 651 442								2262
5:30 PM	to	5:45 PM	620 51				203 137				394 766 509								2680
5:45 PM	to	6:00 PM	726 54				225 154				451 873 569								3052

							TOTAL BY PERIOD												
4:00 PM	to	4:15 PM	0	0	67	7	0	37	19	0	0	45	89	71	0	0	0	0	335
4:15 PM	to	4:30 PM	0	0	61	9	0	31	15	0	0	52	91	77	0	0	0	0	336
4:30 PM	to	4:45 PM	0	0	76	7	0	29	21	0	0	65	102	74	0	0	0	0	374
4:45 PM	to	5:00 PM	0	0	83	6	0	33	23	0	0	73	121	89	0	0	0	0	428
5:00 PM	to	5:15 PM	0	0	98	9	0	21	17	0	0	59	137	67	0	0	0	0	408
5:15 PM	to	5:30 PM	0	0	111	8	0	27	19	0	0	41	111	64	0	0	0	0	381
5:30 PM	to	5:45 PM	0	0	124	5	0	25	23	0	0	59	115	67	0	0	0	0	418
5:45 PM	to	6:00 PM	0	0	106	3	0	22	17	0	0	57	107	60	0	0	0	0	372

				HOURLY TOTALS															
4:00 PM	to	5:00 PM	0	0	287	29	0	130	78	0	0	235	403	311	0	0	0	0	1473
4:15 PM	to	5:15 PM	0	0	318	31	0	114	76	0	0	249	451	307	0	0	0	0	1546
4:30 PM	to	5:30 PM	0	0	368	30	0	110	80	0	0	238	471	294	0	0	0	0	1591
4:45 PM	to	5:45 PM	0	0	416	28	0	106	82	0	0	232	484	287	0	0	0	0	1635
5:00 PM	to	6:00 PM	0	0	439	25	0	95	76	0	0	216	470	258	0	0	0	0	1579

PEAK HOUR SUMMARY																			
4:45 PM	to	5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME			0	0	416	28	0	106	82	0	0	232	484	287	0	0	0	0	1635
PHF BY MOVEMENT			0.00	0.00	0.84	0.78	0.00	0.80	0.89	0.00	0.00	0.79	0.88	0.81	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.86				0.84				0.89				0.00				0.96

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

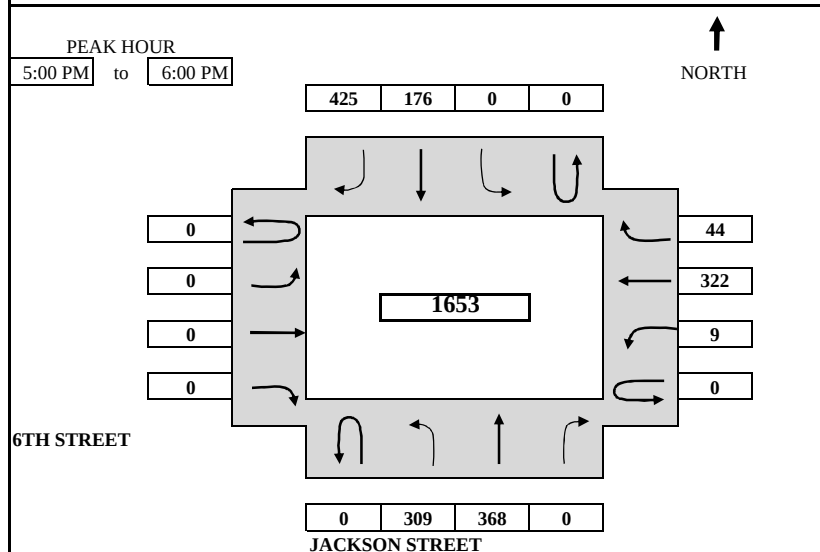
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/13/2013				DAY: WEDNESDAY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
N-S APPROACH: JACKSON STREET				SURVEY TIME: 7:00 AM				TO 9:00 AM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
E-W APPROACH: 6TH STREET				JURISDICTION: OAKLAND				FILE: 3302018-10AM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
PEAK HOUR 7:45 AM to 8:45 AM 1262 158 0 0 0 0 0 0 2221 0 232 238 0 6TH STREET JACKSON STREET NORTH ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF PHF = 0.97 1420 288 PHF = 0.87 1773 0 331 0 PHF = 0.00 160 470 PHF = 0.88										<table><tr><th colspan="2">TIME PERIOD</th><th colspan="4">NORTHBOUND</th><th colspan="4">SOUTHBOUND</th><th colspan="4">EASTBOUND</th><th colspan="4">WESTBOUND</th><th rowspan="2">TOTAL</th></tr><tr><th>From</th><th>To</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th></tr><tr><td colspan="19">SURVEY DATA</td></tr><tr><td>7:00 AM</td><td>to 7:15 AM</td><td>55</td><td>30</td><td></td><td></td><td>21</td><td>262</td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>65</td><td>4</td><td>440</td></tr><tr><td>7:15 AM</td><td>to 7:30 AM</td><td>112</td><td>51</td><td></td><td></td><td>44</td><td>579</td><td></td><td></td><td></td><td></td><td></td><td></td><td>5</td><td>127</td><td>11</td><td>929</td></tr><tr><td>7:30 AM</td><td>to 7:45 AM</td><td>175</td><td>104</td><td></td><td></td><td>80</td><td>886</td><td></td><td></td><td></td><td></td><td></td><td></td><td>6</td><td>196</td><td>25</td><td>1472</td></tr><tr><td>7:45 AM</td><td>to 8:00 AM</td><td>244</td><td>165</td><td></td><td></td><td>113</td><td>1197</td><td></td><td></td><td></td><td></td><td></td><td></td><td>6</td><td>258</td><td>35</td><td>2018</td></tr><tr><td>8:00 AM</td><td>to 8:15 AM</td><td>299</td><td>243</td><td></td><td></td><td>160</td><td>1506</td><td></td><td></td><td></td><td></td><td></td><td></td><td>7</td><td>320</td><td>51</td><td>2586</td></tr><tr><td>8:15 AM</td><td>to 8:30 AM</td><td>358</td><td>297</td><td></td><td></td><td>201</td><td>1819</td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td>397</td><td>68</td><td>3148</td></tr><tr><td>8:30 AM</td><td>to 8:45 AM</td><td>407</td><td>342</td><td></td><td></td><td>238</td><td>2148</td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td>475</td><td>75</td><td>3693</td></tr><tr><td>8:45 AM</td><td>to 9:00 AM</td><td>460</td><td>396</td><td></td><td></td><td>277</td><td>2429</td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td>558</td><td>83</td><td>4211</td></tr><tr><td colspan="19">TOTAL BY PERIOD</td></tr><tr><td>7:00 AM</td><td>to 7:15 AM</td><td>0</td><td>55</td><td>30</td><td>0</td><td>0</td><td>0</td><td>21</td><td>262</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td><td>65</td><td>4</td><td>440</td></tr><tr><td>7:15 AM</td><td>to 7:30 AM</td><td>0</td><td>57</td><td>21</td><td>0</td><td>0</td><td>0</td><td>23</td><td>317</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>62</td><td>7</td><td>489</td></tr><tr><td>7:30 AM</td><td>to 7:45 AM</td><td>0</td><td>63</td><td>53</td><td>0</td><td>0</td><td>0</td><td>36</td><td>307</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>69</td><td>14</td><td>543</td></tr><tr><td>7:45 AM</td><td>to 8:00 AM</td><td>0</td><td>69</td><td>61</td><td>0</td><td>0</td><td>0</td><td>33</td><td>311</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>62</td><td>10</td><td>546</td></tr><tr><td>8:00 AM</td><td>to 8:15 AM</td><td>0</td><td>55</td><td>78</td><td>0</td><td>0</td><td>0</td><td>47</td><td>309</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>62</td><td>16</td><td>568</td></tr><tr><td>8:15 AM</td><td>to 8:30 AM</td><td>0</td><td>59</td><td>54</td><td>0</td><td>0</td><td>0</td><td>41</td><td>313</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>77</td><td>17</td><td>562</td></tr><tr><td>8:30 AM</td><td>to 8:45 AM</td><td>0</td><td>49</td><td>45</td><td>0</td><td>0</td><td>0</td><td>37</td><td>329</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>78</td><td>7</td><td>545</td></tr><tr><td>8:45 AM</td><td>to 9:00 AM</td><td>0</td><td>53</td><td>54</td><td>0</td><td>0</td><td>0</td><td>39</td><td>281</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>83</td><td>8</td><td>518</td></tr><tr><td colspan="19">HOURLY TOTALS</td></tr><tr><td>7:00 AM</td><td>to 8:00 AM</td><td>0</td><td>244</td><td>165</td><td>0</td><td>0</td><td>0</td><td>113</td><td>1197</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>6</td><td>258</td><td>35</td><td>2018</td></tr><tr><td>7:15 AM</td><td>to 8:15 AM</td><td>0</td><td>244</td><td>213</td><td>0</td><td>0</td><td>0</td><td>139</td><td>1244</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>4</td><td>255</td><td>47</td><td>2146</td></tr><tr><td>7:30 AM</td><td>to 8:30 AM</td><td>0</td><td>246</td><td>246</td><td>0</td><td>0</td><td>0</td><td>157</td><td>1240</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td><td>270</td><td>57</td><td>2219</td></tr><tr><td>7:45 AM</td><td>to 8:45 AM</td><td>0</td><td>232</td><td>238</td><td>0</td><td>0</td><td>0</td><td>158</td><td>1262</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>279</td><td>50</td><td>2221</td></tr><tr><td>8:00 AM</td><td>to 9:00 AM</td><td>0</td><td>216</td><td>231</td><td>0</td><td>0</td><td>0</td><td>164</td><td>1232</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>300</td><td>48</td><td>2193</td></tr><tr><td colspan="19">PEAK HOUR SUMMARY</td></tr><tr><td>7:45 AM</td><td>to 8:45 AM</td><td>NBU</td><td>NBL</td><td>NBT</td><td>NBR</td><td>SBU</td><td>SBL</td><td>SBT</td><td>SBR</td><td>EBU</td><td>EBL</td><td>EBT</td><td>EBR</td><td>WBU</td><td>WBL</td><td>WBT</td><td>WBR</td><td>TOTAL</td></tr><tr><td>VOLUME</td><td></td><td>0</td><td>232</td><td>238</td><td>0</td><td>0</td><td>0</td><td>158</td><td>1262</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>279</td><td>50</td><td>2221</td></tr><tr><td>PHF BY MOVEMENT</td><td></td><td>0.00</td><td>0.84</td><td>0.76</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.84</td><td>0.96</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.50</td><td>0.89</td><td>0.74</td><td>OVERALL</td></tr><tr><td>PHF BY APPROACH</td><td></td><td colspan="4">0.88</td><td colspan="4">0.97</td><td colspan="4">0.00</td><td colspan="4">0.87</td><td>0.98</td></tr></table>										TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	SURVEY DATA																			7:00 AM	to 7:15 AM	55	30			21	262							3	65	4	440	7:15 AM	to 7:30 AM	112	51			44	579							5	127	11	929	7:30 AM	to 7:45 AM	175	104			80	886							6	196	25	1472	7:45 AM	to 8:00 AM	244	165			113	1197							6	258	35	2018	8:00 AM	to 8:15 AM	299	243			160	1506							7	320	51	2586	8:15 AM	to 8:30 AM	358	297			201	1819							8	397	68	3148	8:30 AM	to 8:45 AM	407	342			238	2148							8	475	75	3693	8:45 AM	to 9:00 AM	460	396			277	2429							8	558	83	4211	TOTAL BY PERIOD																			7:00 AM	to 7:15 AM	0	55	30	0	0	0	21	262	0	0	0	0	0	3	65	4	440	7:15 AM	to 7:30 AM	0	57	21	0	0	0	23	317	0	0	0	0	0	2	62	7	489	7:30 AM	to 7:45 AM	0	63	53	0	0	0	36	307	0	0	0	0	0	1	69	14	543	7:45 AM	to 8:00 AM	0	69	61	0	0	0	33	311	0	0	0	0	0	0	62	10	546	8:00 AM	to 8:15 AM	0	55	78	0	0	0	47	309	0	0	0	0	0	1	62	16	568	8:15 AM	to 8:30 AM	0	59	54	0	0	0	41	313	0	0	0	0	0	1	77	17	562	8:30 AM	to 8:45 AM	0	49	45	0	0	0	37	329	0	0	0	0	0	0	78	7	545	8:45 AM	to 9:00 AM	0	53	54	0	0	0	39	281	0	0	0	0	0	0	83	8	518	HOURLY TOTALS																			7:00 AM	to 8:00 AM	0	244	165	0	0	0	113	1197	0	0	0	0	0	6	258	35	2018	7:15 AM	to 8:15 AM	0	244	213	0	0	0	139	1244	0	0	0	0	0	4	255	47	2146	7:30 AM	to 8:30 AM	0	246	246	0	0	0	157	1240	0	0	0	0	0	3	270	57	2219	7:45 AM	to 8:45 AM	0	232	238	0	0	0	158	1262	0	0	0	0	0	2	279	50	2221	8:00 AM	to 9:00 AM	0	216	231	0	0	0	164	1232	0	0	0	0	0	2	300	48	2193	PEAK HOUR SUMMARY																			7:45 AM	to 8:45 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	VOLUME		0	232	238	0	0	0	158	1262	0	0	0	0	0	2	279	50	2221	PHF BY MOVEMENT		0.00	0.84	0.76	0.00	0.00	0.00	0.84	0.96	0.00	0.00	0.00	0.00	0.00	0.50	0.89	0.74	OVERALL	PHF BY APPROACH		0.88				0.97				0.00				0.87				0.98
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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PHF BY MOVEMENT		0.00	0.84	0.76	0.00	0.00	0.00	0.84	0.96	0.00	0.00	0.00	0.00	0.00	0.50	0.89	0.74	OVERALL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	JACKSON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-10PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF =	0.88
601	412
PHF =	0.88
1056	375
0	0
PHF =	0.00
185	677
PHF =	0.89

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	

SURVEY DATA																		
4:00 PM	to	4:15 PM	67	53				57	119					3	87	7		393
4:15 PM	to	4:30 PM	136	100				116	229					5	158	18		762
4:30 PM	to	4:45 PM	219	166				167	336					6	243	27		1164
4:45 PM	to	5:00 PM	283	247				210	438					8	320	38		1544
5:00 PM	to	5:15 PM	361	333				243	529					10	403	48		1927
5:15 PM	to	5:30 PM	438	427				286	626					13	487	59		2336
5:30 PM	to	5:45 PM	521	534				345	734					15	579	71		2799
5:45 PM	to	6:00 PM	592	615				386	863					17	642	82		3197

						TOTAL BY PERIOD													
4:00 PM	to	4:15 PM	0	67	53	0	0	0	57	119	0	0	0	0	0	3	87	7	393
4:15 PM	to	4:30 PM	0	69	47	0	0	0	59	110	0	0	0	0	0	2	71	11	369
4:30 PM	to	4:45 PM	0	83	66	0	0	0	51	107	0	0	0	0	0	1	85	9	402
4:45 PM	to	5:00 PM	0	64	81	0	0	0	43	102	0	0	0	0	0	2	77	11	380
5:00 PM	to	5:15 PM	0	78	86	0	0	0	33	91	0	0	0	0	0	2	83	10	383
5:15 PM	to	5:30 PM	0	77	94	0	0	0	43	97	0	0	0	0	0	3	84	11	409
5:30 PM	to	5:45 PM	0	83	107	0	0	0	59	108	0	0	0	0	0	2	92	12	463
5:45 PM	to	6:00 PM	0	71	81	0	0	0	41	129	0	0	0	0	0	2	63	11	398

							HOURLY TOTALS												
4:00 PM	to	5:00 PM	0	283	247	0	0	0	210	438	0	0	0	0	0	8	320	38	1544
4:15 PM	to	5:15 PM	0	294	280	0	0	0	186	410	0	0	0	0	0	7	316	41	1534
4:30 PM	to	5:30 PM	0	302	327	0	0	0	170	397	0	0	0	0	0	8	329	41	1574
4:45 PM	to	5:45 PM	0	302	368	0	0	0	178	398	0	0	0	0	0	9	336	44	1635
5:00 PM	to	6:00 PM	0	309	368	0	0	0	176	425	0	0	0	0	0	9	322	44	1653

			PEAK HOUR SUMMARY																
5:00 PM	to	6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME			0	309	368	0	0	0	176	425	0	0	0	0	0	9	322	44	1653
PHF BY MOVEMENT			0.00	0.93	0.86	0.00	0.00	0.00	0.75	0.82	0.00	0.00	0.00	0.00	0.00	0.75	0.88	0.92	OVERALL
PHF BY APPROACH			0.89				0.88				0.00				0.88				0.89

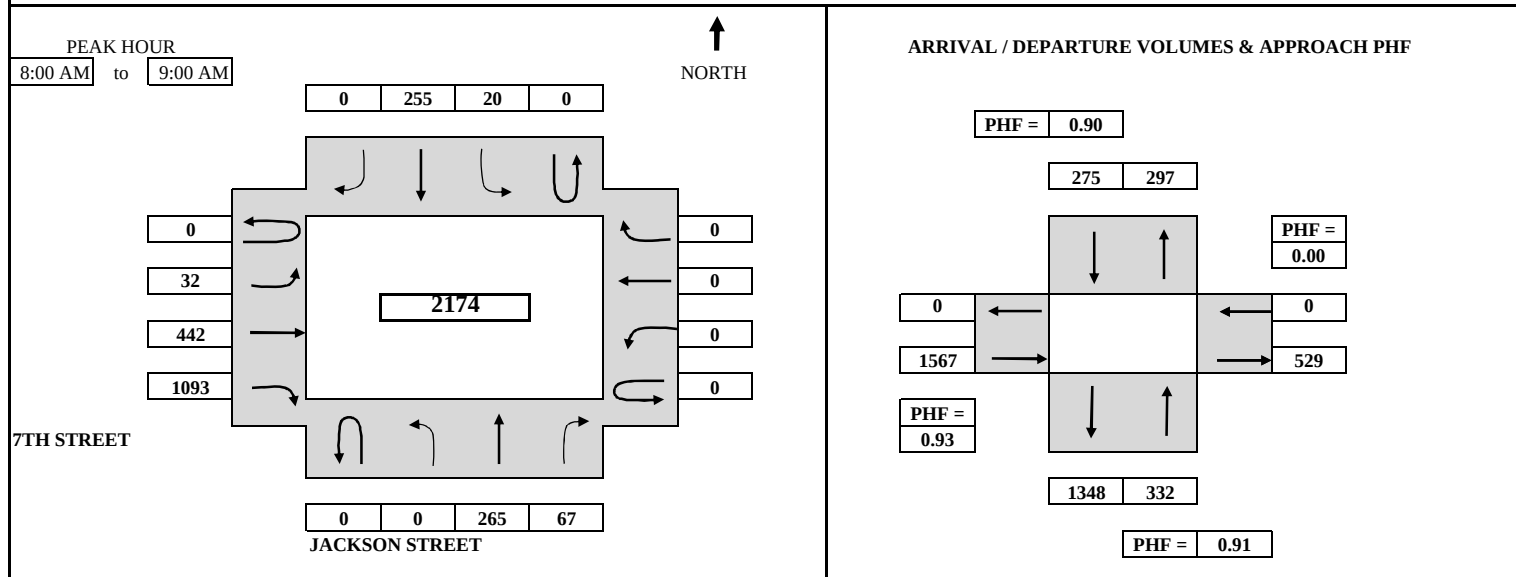
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	JACKSON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	7TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-11AM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM			23	6			3	36			4	99	266				437
7:15 AM	to 7:30 AM			57	22			7	75			7	211	545				924
7:30 AM	to 7:45 AM			98	33			14	130			14	341	852				1482
7:45 AM	to 8:00 AM			134	53			20	180			20	442	1133				1982
8:00 AM	to 8:15 AM			185	72			24	237			27	548	1411				2504
8:15 AM	to 8:30 AM			258	88			31	306			37	642	1669				3031
8:30 AM	to 8:45 AM			327	101			36	365			47	778	1946				3600
8:45 AM	to 9:00 AM			399	120			40	435			52	884	2226				4156

TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	23	6	0	3	36	0	0	4	99	266	0	0	0	0	437
7:15 AM	to 7:30 AM	0	0	34	16	0	4	39	0	0	3	112	279	0	0	0	0	487
7:30 AM	to 7:45 AM	0	0	41	11	0	7	55	0	0	7	130	307	0	0	0	0	558
7:45 AM	to 8:00 AM	0	0	36	20	0	6	50	0	0	6	101	281	0	0	0	0	500
8:00 AM	to 8:15 AM	0	0	51	19	0	4	57	0	0	7	106	278	0	0	0	0	522
8:15 AM	to 8:30 AM	0	0	73	16	0	7	69	0	0	10	94	258	0	0	0	0	527
8:30 AM	to 8:45 AM	0	0	69	13	0	5	59	0	0	10	136	277	0	0	0	0	569
8:45 AM	to 9:00 AM	0	0	72	19	0	4	70	0	0	5	106	280	0	0	0	0	556

HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	134	53	0	20	180	0	0	20	442	1133	0	0	0	0	1982
7:15 AM	to 8:15 AM	0	0	162	66	0	21	201	0	0	23	449	1145	0	0	0	0	2067
7:30 AM	to 8:30 AM	0	0	201	66	0	24	231	0	0	30	431	1124	0	0	0	0	2107
7:45 AM	to 8:45 AM	0	0	229	68	0	22	235	0	0	33	437	1094	0	0	0	0	2118
8:00 AM	to 9:00 AM	0	0	265	67	0	20	255	0	0	32	442	1093	0	0	0	0	2174

PEAK HOUR SUMMARY																		
8:00 AM	to 9:00 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	265	67	0	20	255	0	0	32	442	1093	0	0	0	0	2174
PHF BY MOVEMENT		0.00	0.00	0.91	0.88	0.00	0.71	0.91	0.00	0.00	0.80	0.81	0.98	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.91				0.90				0.93				0.00				0.96

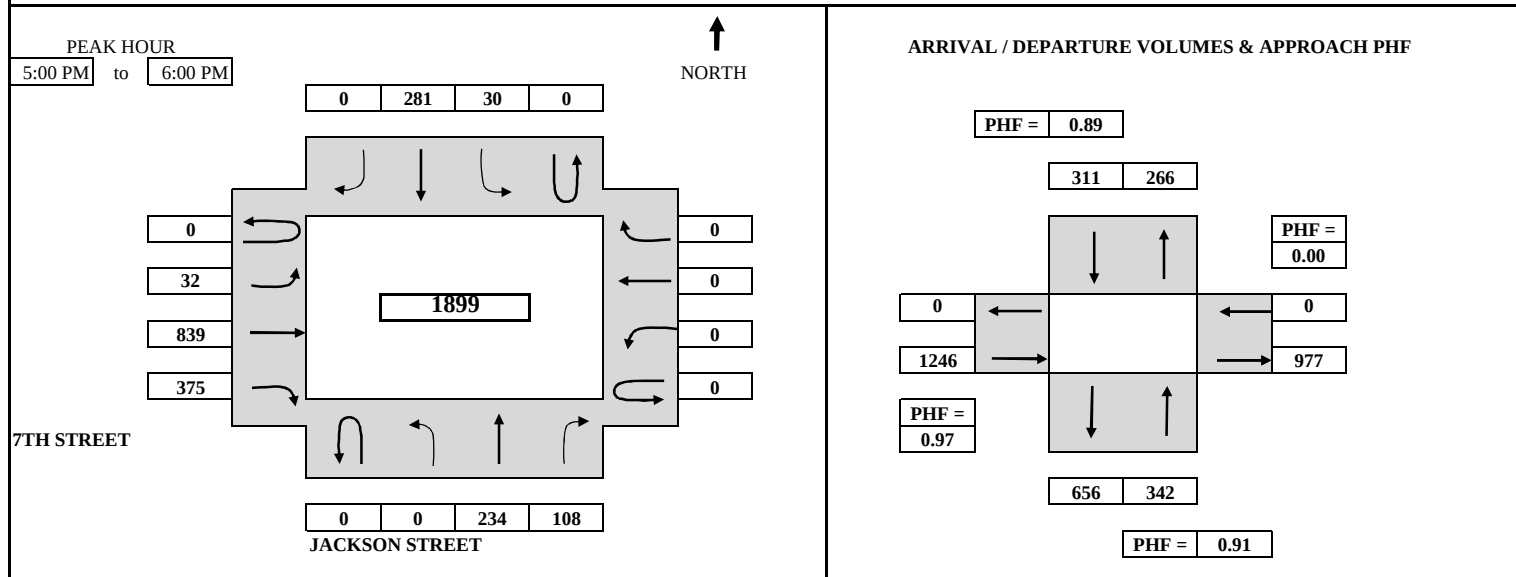
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	JACKSON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	7TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-11PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM			37	23			9	70			7	186	93				425
4:15 PM	to 4:30 PM			80	55			20	139			14	393	182				883
4:30 PM	to 4:45 PM			131	82			25	209			16	561	271				1295
4:45 PM	to 5:00 PM			189	103			32	280			23	723	356				1706
5:00 PM	to 5:15 PM			250	132			42	354			27	962	433				2200
5:15 PM	to 5:30 PM			305	155			51	432			39	1176	521				2679
5:30 PM	to 5:45 PM			368	186			56	502			48	1368	622				3150
5:45 PM	to 6:00 PM			423	211			62	561			55	1562	731				3605

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	37	23	0	9	70	0	0	7	186	93	0	0	0	0	425
4:15 PM	to 4:30 PM	0	0	43	32	0	11	69	0	0	7	207	89	0	0	0	0	458
4:30 PM	to 4:45 PM	0	0	51	27	0	5	70	0	0	2	168	89	0	0	0	0	412
4:45 PM	to 5:00 PM	0	0	58	21	0	7	71	0	0	7	162	85	0	0	0	0	411
5:00 PM	to 5:15 PM	0	0	61	29	0	10	74	0	0	4	239	77	0	0	0	0	494
5:15 PM	to 5:30 PM	0	0	55	23	0	9	78	0	0	12	214	88	0	0	0	0	479
5:30 PM	to 5:45 PM	0	0	63	31	0	5	70	0	0	9	192	101	0	0	0	0	471
5:45 PM	to 6:00 PM	0	0	55	25	0	6	59	0	0	7	194	109	0	0	0	0	455

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	189	103	0	32	280	0	0	23	723	356	0	0	0	0	1706
4:15 PM	to 5:15 PM	0	0	213	109	0	33	284	0	0	20	776	340	0	0	0	0	1775
4:30 PM	to 5:30 PM	0	0	225	100	0	31	293	0	0	25	783	339	0	0	0	0	1796
4:45 PM	to 5:45 PM	0	0	237	104	0	31	293	0	0	32	807	351	0	0	0	0	1855
5:00 PM	to 6:00 PM	0	0	234	108	0	30	281	0	0	32	839	375	0	0	0	0	1899

PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
		0	0	234	108	0	30	281	0	0	32	839	375	0	0	0	0	1899
PHF BY MOVEMENT		0.00	0.00	0.93	0.87	0.00	0.75	0.90	0.00	0.00	0.67	0.88	0.86	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.91				0.89				0.97				0.00				0.96

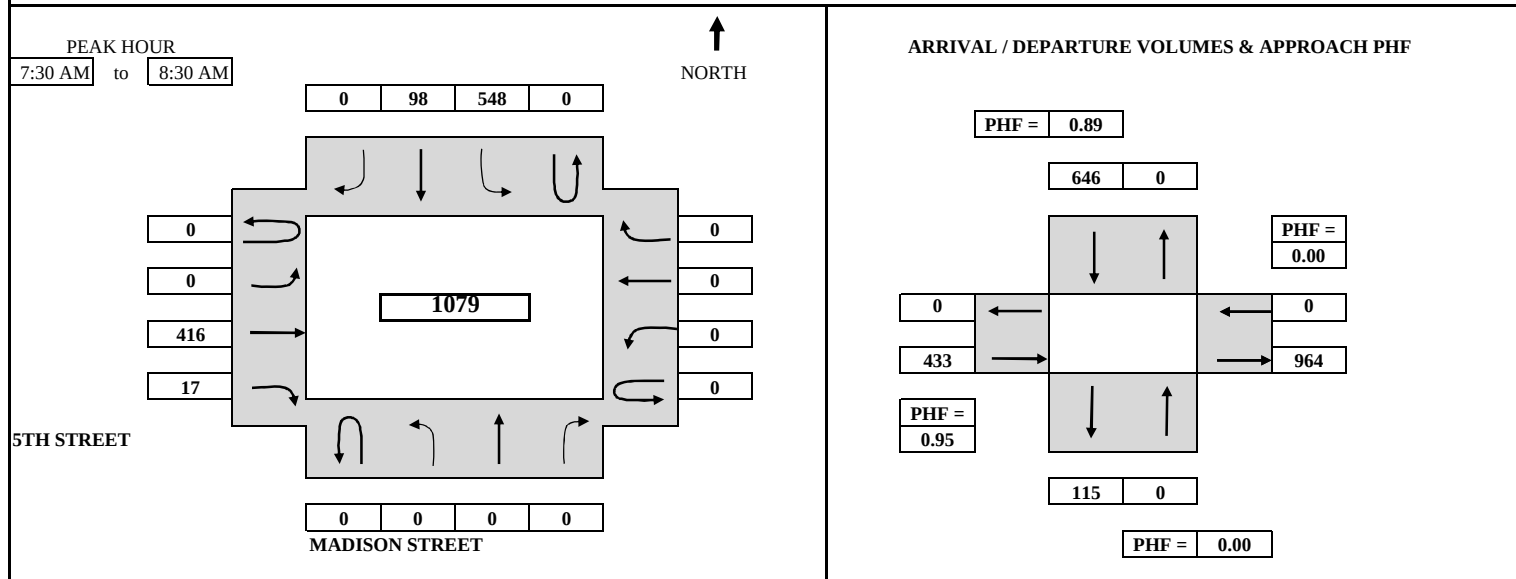
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	MADISON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	5TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-12AM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM					97	17			61	7							182
7:15 AM	to 7:30 AM					230	38			128	10							406
7:30 AM	to 7:45 AM					391	59			221	14							685
7:45 AM	to 8:00 AM					528	79			324	19							950
8:00 AM	to 8:15 AM					657	106			435	22							1220
8:15 AM	to 8:30 AM					778	136			544	27							1485
8:30 AM	to 8:45 AM					897	165			658	29							1749
8:45 AM	to 9:00 AM					1020	198			774	32							2024
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	0	0	0	97	17	0	0	0	61	7	0	0	0	0	182
7:15 AM	to 7:30 AM	0	0	0	0	0	133	21	0	0	0	67	3	0	0	0	0	224
7:30 AM	to 7:45 AM	0	0	0	0	0	161	21	0	0	0	93	4	0	0	0	0	279
7:45 AM	to 8:00 AM	0	0	0	0	0	137	20	0	0	0	103	5	0	0	0	0	265
8:00 AM	to 8:15 AM	0	0	0	0	0	129	27	0	0	0	111	3	0	0	0	0	270
8:15 AM	to 8:30 AM	0	0	0	0	0	121	30	0	0	0	109	5	0	0	0	0	265
8:30 AM	to 8:45 AM	0	0	0	0	0	119	29	0	0	0	114	2	0	0	0	0	264
8:45 AM	to 9:00 AM	0	0	0	0	0	123	33	0	0	0	116	3	0	0	0	0	275
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	0	0	0	528	79	0	0	0	324	19	0	0	0	0	950
7:15 AM	to 8:15 AM	0	0	0	0	0	560	89	0	0	0	374	15	0	0	0	0	1038
7:30 AM	to 8:30 AM	0	0	0	0	0	548	98	0	0	0	416	17	0	0	0	0	1079
7:45 AM	to 8:45 AM	0	0	0	0	0	506	106	0	0	0	437	15	0	0	0	0	1064
8:00 AM	to 9:00 AM	0	0	0	0	0	492	119	0	0	0	450	13	0	0	0	0	1074
PEAK HOUR SUMMARY																		
7:30 AM	to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
		0	0	0	0	0	548	98	0	0	0	416	17	0	0	0	0	1079
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.85	0.82	0.00	0.00	0.00	0.94	0.85	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.00				0.89				0.95				0.00				0.97

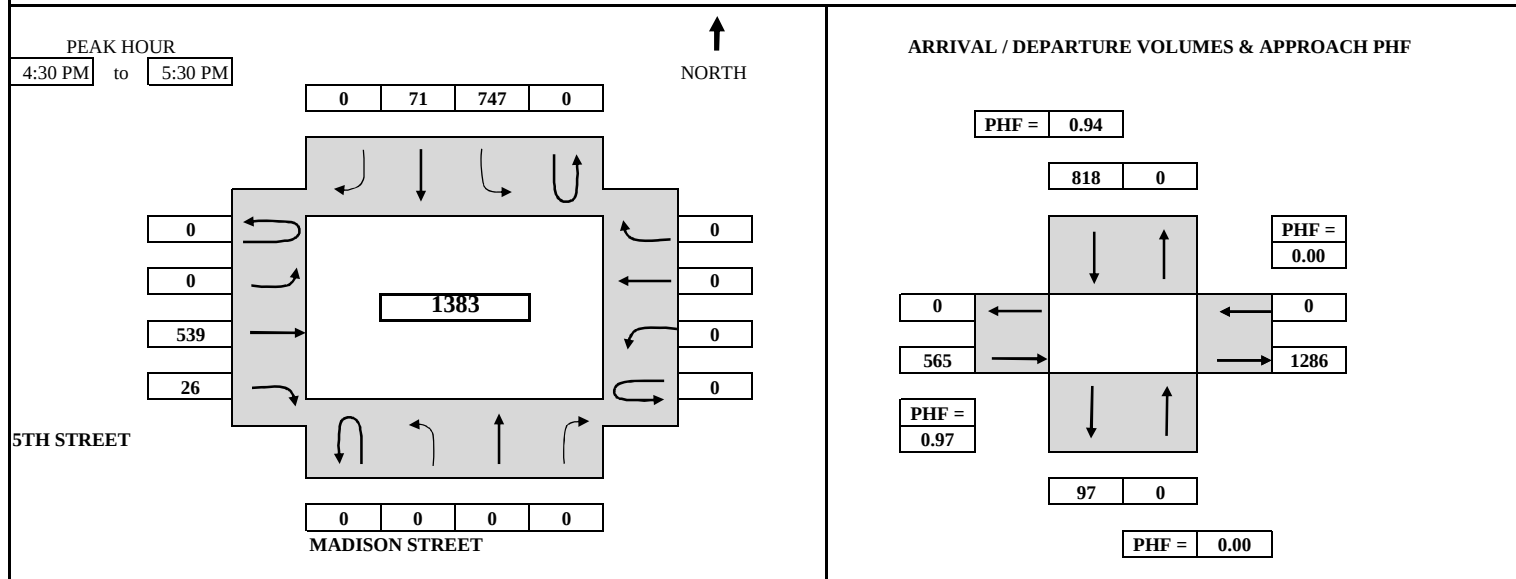
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	MADISON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	5TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-12PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM					169	25			113	5							312
4:15 PM	to 4:30 PM					326	48			242	11							627
4:30 PM	to 4:45 PM					505	69			377	17							968
4:45 PM	to 5:00 PM					680	86			515	25							1306
5:00 PM	to 5:15 PM					874	101			644	32							1651
5:15 PM	to 5:30 PM					1073	119			781	37							2010
5:30 PM	to 5:45 PM					1246	138			916	50							2350
5:45 PM	to 6:00 PM					1412	150			1045	63							2670

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	0	0	0	169	25	0	0	0	113	5	0	0	0	0	312
4:15 PM	to 4:30 PM	0	0	0	0	0	157	23	0	0	0	129	6	0	0	0	0	315
4:30 PM	to 4:45 PM	0	0	0	0	0	179	21	0	0	0	135	6	0	0	0	0	341
4:45 PM	to 5:00 PM	0	0	0	0	0	175	17	0	0	0	138	8	0	0	0	0	338
5:00 PM	to 5:15 PM	0	0	0	0	0	194	15	0	0	0	129	7	0	0	0	0	345
5:15 PM	to 5:30 PM	0	0	0	0	0	199	18	0	0	0	137	5	0	0	0	0	359
5:30 PM	to 5:45 PM	0	0	0	0	0	173	19	0	0	0	135	13	0	0	0	0	340
5:45 PM	to 6:00 PM	0	0	0	0	0	166	12	0	0	0	129	13	0	0	0	0	320

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	0	0	0	680	86	0	0	0	515	25	0	0	0	0	1306
4:15 PM	to 5:15 PM	0	0	0	0	0	705	76	0	0	0	531	27	0	0	0	0	1339
4:30 PM	to 5:30 PM	0	0	0	0	0	747	71	0	0	0	539	26	0	0	0	0	1383
4:45 PM	to 5:45 PM	0	0	0	0	0	741	69	0	0	0	539	33	0	0	0	0	1382
5:00 PM	to 6:00 PM	0	0	0	0	0	732	64	0	0	0	530	38	0	0	0	0	1364

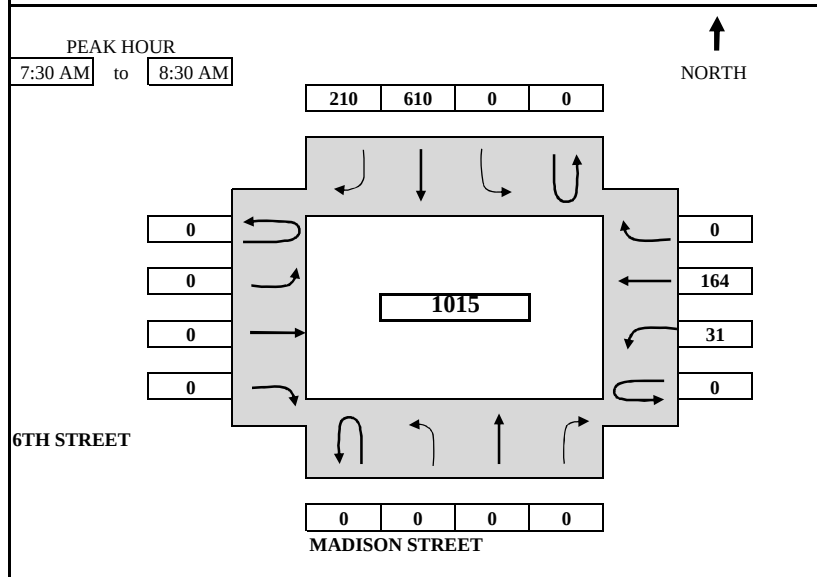
PEAK HOUR SUMMARY																		
4:30 PM	to 5:30 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	0	0	0	747	71	0	0	0	539	26	0	0	0	0	1383
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.94	0.85	0.00	0.00	0.00	0.98	0.81	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.00				0.94				0.97				0.00				0.96

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B . A . Y . M . E . T . R . I . C . S .

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	MADISON STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-13AM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

TIME PERIOD			NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL				
From	To		U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT					
SURVEY DATA																							
7:00 AM	to	7:15 AM					121				57								9		29		216
7:15 AM	to	7:30 AM					262				100								16		72		450
7:30 AM	to	7:45 AM					430				153								25		111		719
7:45 AM	to	8:00 AM					587				204								35		152		978
8:00 AM	to	8:15 AM					733				252								40		197		1222
8:15 AM	to	8:30 AM					872				310								47		236		1465
8:30 AM	to	8:45 AM					1020				357								54		273		1704
8:45 AM	to	9:00 AM					1153				418								62		308		1941

							TOTAL BY PERIOD												
7:00 AM	to	7:15 AM	0	0	0	0	0	0	121	57	0	0	0	0	0	9	29	0	216
7:15 AM	to	7:30 AM	0	0	0	0	0	0	141	43	0	0	0	0	0	7	43	0	234
7:30 AM	to	7:45 AM	0	0	0	0	0	0	168	53	0	0	0	0	0	9	39	0	269
7:45 AM	to	8:00 AM	0	0	0	0	0	0	157	51	0	0	0	0	0	10	41	0	259
8:00 AM	to	8:15 AM	0	0	0	0	0	0	146	48	0	0	0	0	0	5	45	0	244
8:15 AM	to	8:30 AM	0	0	0	0	0	0	139	58	0	0	0	0	0	7	39	0	243
8:30 AM	to	8:45 AM	0	0	0	0	0	0	148	47	0	0	0	0	0	7	37	0	239
8:45 AM	to	9:00 AM	0	0	0	0	0	0	133	61	0	0	0	0	0	8	35	0	237

								HOURLY TOTALS												
7:00 AM	to	8:00 AM	0	0	0	0	0	0	0	587	204	0	0	0	0	0	35	152	0	978
7:15 AM	to	8:15 AM	0	0	0	0	0	0	0	612	195	0	0	0	0	0	31	168	0	1006
7:30 AM	to	8:30 AM	0	0	0	0	0	0	0	610	210	0	0	0	0	0	31	164	0	1015
7:45 AM	to	8:45 AM	0	0	0	0	0	0	0	590	204	0	0	0	0	0	29	162	0	985
8:00 AM	to	9:00 AM	0	0	0	0	0	0	0	566	214	0	0	0	0	0	27	156	0	963

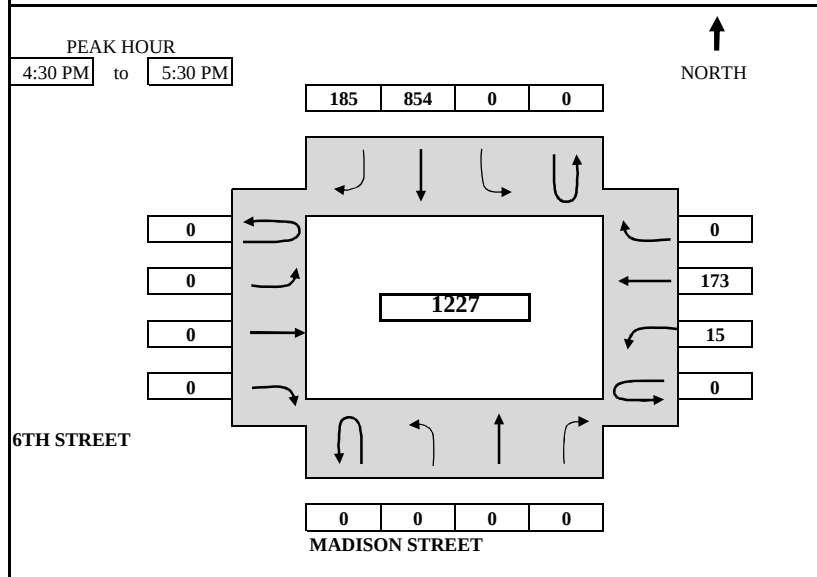
PEAK HOUR SUMMARY																		
7:30 AM to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	
VOLUME	0	0	0	0	0	0	610	210	0	0	0	0	0	31	164	0	1015	
PHF BY MOVEMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.00	0.00	0.00	0.78	0.91	0.00	OVERALL	
PHF BY APPROACH	0.00				0.93				0.00				0.96				0.94	

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	MADISON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-13PM



ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.94	
1039	0
PHF = 0.81	
358	188
0	0
PHF = 0.00	
869	0
PHF = 0.00	

TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM							188	38					2	36			264
4:15 PM	to 4:30 PM							347	85					3	81			516
4:30 PM	to 4:45 PM							558	116					5	122			801
4:45 PM	to 5:00 PM							766	160					7	169			1102
5:00 PM	to 5:15 PM							986	215					14	220			1435
5:15 PM	to 5:30 PM							1201	270					18	254			1743
5:30 PM	to 5:45 PM							1378	309					21	302			2010
5:45 PM	to 6:00 PM							1559	358					26	353			2296

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	0	0	0	0	188	38	0	0	0	0	0	2	36	0	264
4:15 PM	to 4:30 PM	0	0	0	0	0	0	159	47	0	0	0	0	0	1	45	0	252
4:30 PM	to 4:45 PM	0	0	0	0	0	0	211	31	0	0	0	0	0	2	41	0	285
4:45 PM	to 5:00 PM	0	0	0	0	0	0	208	44	0	0	0	0	0	2	47	0	301
5:00 PM	to 5:15 PM	0	0	0	0	0	0	220	55	0	0	0	0	0	7	51	0	333
5:15 PM	to 5:30 PM	0	0	0	0	0	0	215	55	0	0	0	0	0	4	34	0	308
5:30 PM	to 5:45 PM	0	0	0	0	0	0	177	39	0	0	0	0	0	3	48	0	267
5:45 PM	to 6:00 PM	0	0	0	0	0	0	181	49	0	0	0	0	0	5	51	0	286

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	0	0	0	0	766	160	0	0	0	0	0	7	169	0	1102
4:15 PM	to 5:15 PM	0	0	0	0	0	0	798	177	0	0	0	0	0	12	184	0	1171
4:30 PM	to 5:30 PM	0	0	0	0	0	0	854	185	0	0	0	0	0	15	173	0	1227
4:45 PM	to 5:45 PM	0	0	0	0	0	0	820	193	0	0	0	0	0	16	180	0	1209
5:00 PM	to 6:00 PM	0	0	0	0	0	0	793	198	0	0	0	0	0	19	184	0	1194

PEAK HOUR SUMMARY																		
4:30 PM	to 5:30 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	0	0	0	0	854	185	0	0	0	0	0	15	173	0	1227
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.84	0.00	0.00	0.00	0.00	0.00	0.54	0.85	0.00	OVERALL
PHF BY APPROACH		0.00				0.94				0.00				0.81				0.92

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

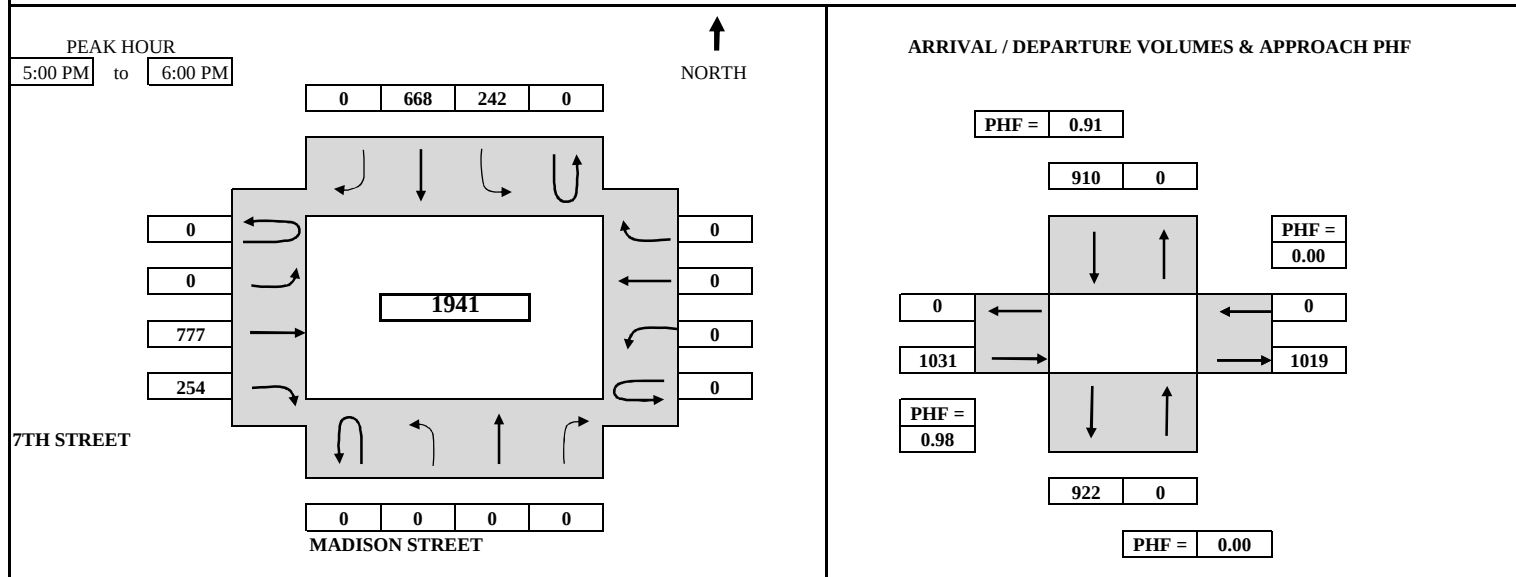
B.A.Y.M.E.T.R.I.C.S.
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:		JACK LONDON SQUARE STUDY (II)								SURVEY DATE:				2/13/2013				DAY: WEDNESDAY			
N-S APPROACH:		MADISON STREET								SURVEY TIME:				7:00 AM				TO 9:00 AM			
E-W APPROACH:		7TH STREET								JURISDICTION:				OAKLAND				FILE: 3302018-14AM			
PEAK HOUR 8:00 AM to 9:00 AM																					

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	MADISON STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	7TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-14PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM					33	169			137	79							418
4:15 PM	to 4:30 PM					69	331			261	141							802
4:30 PM	to 4:45 PM					117	516			404	233							1270
4:45 PM	to 5:00 PM					155	677			546	302							1680
5:00 PM	to 5:15 PM					229	849			733	362							2173
5:15 PM	to 5:30 PM					291	1019			924	432							2666
5:30 PM	to 5:45 PM					355	1206			1126	494							3181
5:45 PM	to 6:00 PM					397	1345			1323	556							3621
TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	0	0	0	0	33	169	0	0	0	137	79	0	0	0	0	418
4:15 PM	to 4:30 PM	0	0	0	0	0	36	162	0	0	0	124	62	0	0	0	0	384
4:30 PM	to 4:45 PM	0	0	0	0	0	48	185	0	0	0	143	92	0	0	0	0	468
4:45 PM	to 5:00 PM	0	0	0	0	0	38	161	0	0	0	142	69	0	0	0	0	410
5:00 PM	to 5:15 PM	0	0	0	0	0	74	172	0	0	0	187	60	0	0	0	0	493
5:15 PM	to 5:30 PM	0	0	0	0	0	62	170	0	0	0	191	70	0	0	0	0	493
5:30 PM	to 5:45 PM	0	0	0	0	0	64	187	0	0	0	202	62	0	0	0	0	515
5:45 PM	to 6:00 PM	0	0	0	0	0	42	139	0	0	0	197	62	0	0	0	0	440
HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	0	0	0	0	155	677	0	0	0	546	302	0	0	0	0	1680
4:15 PM	to 5:15 PM	0	0	0	0	0	196	680	0	0	0	596	283	0	0	0	0	1755
4:30 PM	to 5:30 PM	0	0	0	0	0	222	688	0	0	0	663	291	0	0	0	0	1864
4:45 PM	to 5:45 PM	0	0	0	0	0	238	690	0	0	0	722	261	0	0	0	0	1911
5:00 PM	to 6:00 PM	0	0	0	0	0	242	668	0	0	0	777	254	0	0	0	0	1941
PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	0	0	0	242	668	0	0	0	777	254	0	0	0	0	1941
PHF BY MOVEMENT		0.00	0.00	0.00	0.00	0.00	0.82	0.89	0.00	0.00	0.00	0.96	0.91	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.00				0.91				0.98				0.00				0.94

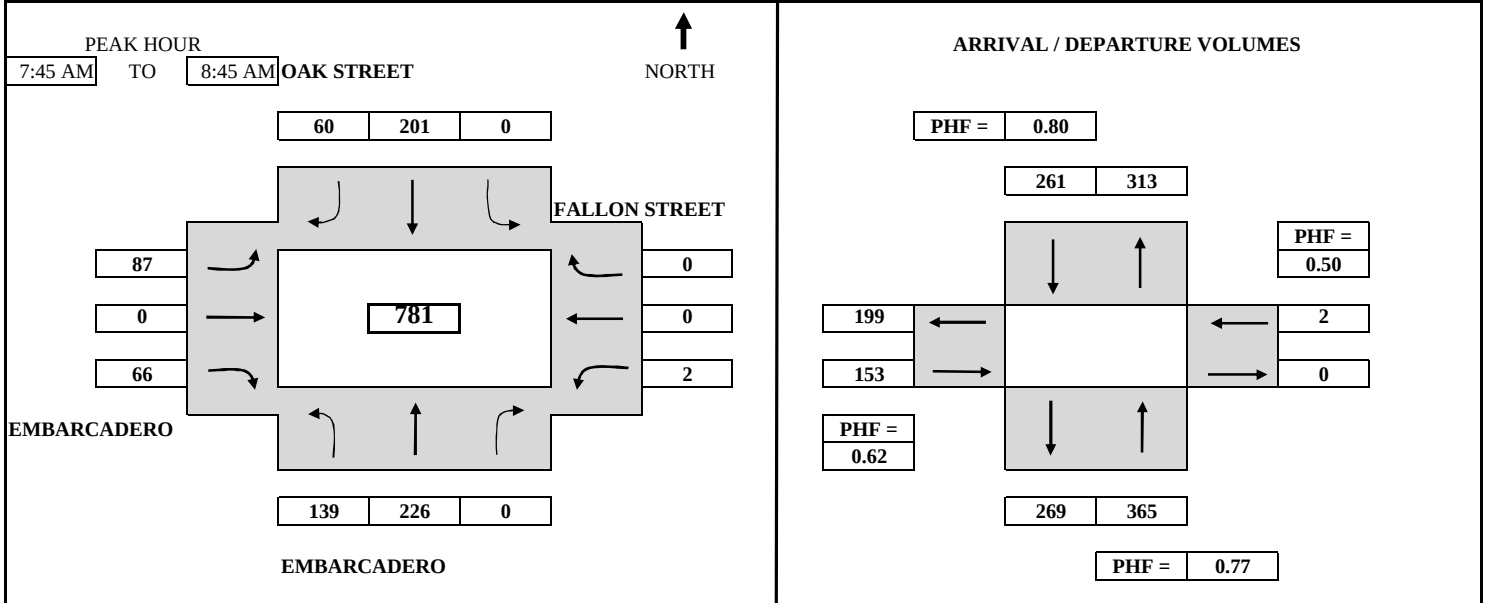
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: OAK STREET		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH EMBARCADERO		JURISDICTION: OAKLAND		FILE:	3301002-11AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WB (FALLON STREET)			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	7	20		19	6		8	7		0	0		67
7:15 AM	to	7:30 AM	13	44		47	13		14	12		1	0		144
7:30 AM	to	7:45 AM	30	101		63	29		29	21		1	1		275
7:45 AM	to	8:00 AM	82	121		86	53		70	42		2	1		457
8:00 AM	to	8:15 AM	116	172		130	68		92	64		3	1		646
8:15 AM	to	8:30 AM	153	253		187	84		108	80		3	1		869
8:30 AM	to	8:45 AM	169	327		264	89		116	87		3	1		1056
8:45 AM	to	9:00 AM	181	407		321	96		120	94		3	1		1223
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	7	20	0	0	19	6	8	0	7	0	0	0	67
7:15 AM	to	7:30 AM	6	24	0	0	28	7	6	0	5	1	0	0	77
7:30 AM	to	7:45 AM	17	57	0	0	16	16	15	0	9	0	0	1	131
7:45 AM	to	8:00 AM	52	20	0	0	23	24	41	0	21	1	0	0	182
8:00 AM	to	8:15 AM	34	51	0	0	44	15	22	0	22	1	0	0	189
8:15 AM	to	8:30 AM	37	81	0	0	57	16	16	0	16	0	0	0	223
8:30 AM	to	8:45 AM	16	74	0	0	77	5	8	0	7	0	0	0	187
8:45 AM	to	9:00 AM	12	80	0	0	57	7	4	0	7	0	0	0	167
HOURLY TOTALS															
7:00 AM	to	8:00 AM	82	121	0	0	86	53	70	0	42	2	0	1	457
7:15 AM	to	8:15 AM	109	152	0	0	111	62	84	0	57	3	0	1	579
7:30 AM	to	8:30 AM	140	209	0	0	140	71	94	0	68	2	0	1	725
7:45 AM	to	8:45 AM	139	226	0	0	201	60	87	0	66	2	0	0	781
8:00 AM	to	9:00 AM	99	286	0	0	235	43	50	0	52	1	0	0	766
PEAK HOUR SUMMARY															
7:45 AM	to	8:45 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			139	226	0	0	201	60	87	0	66	2	0	0	781
PHF BY MOVEMENT			0.67	0.70	0.00	0.00	0.65	0.63	0.53	0.00	0.75	0.50	0.00	0.00	OVERALL
PHF BY APPROACH			0.77			0.80			0.62			0.50			0.88
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

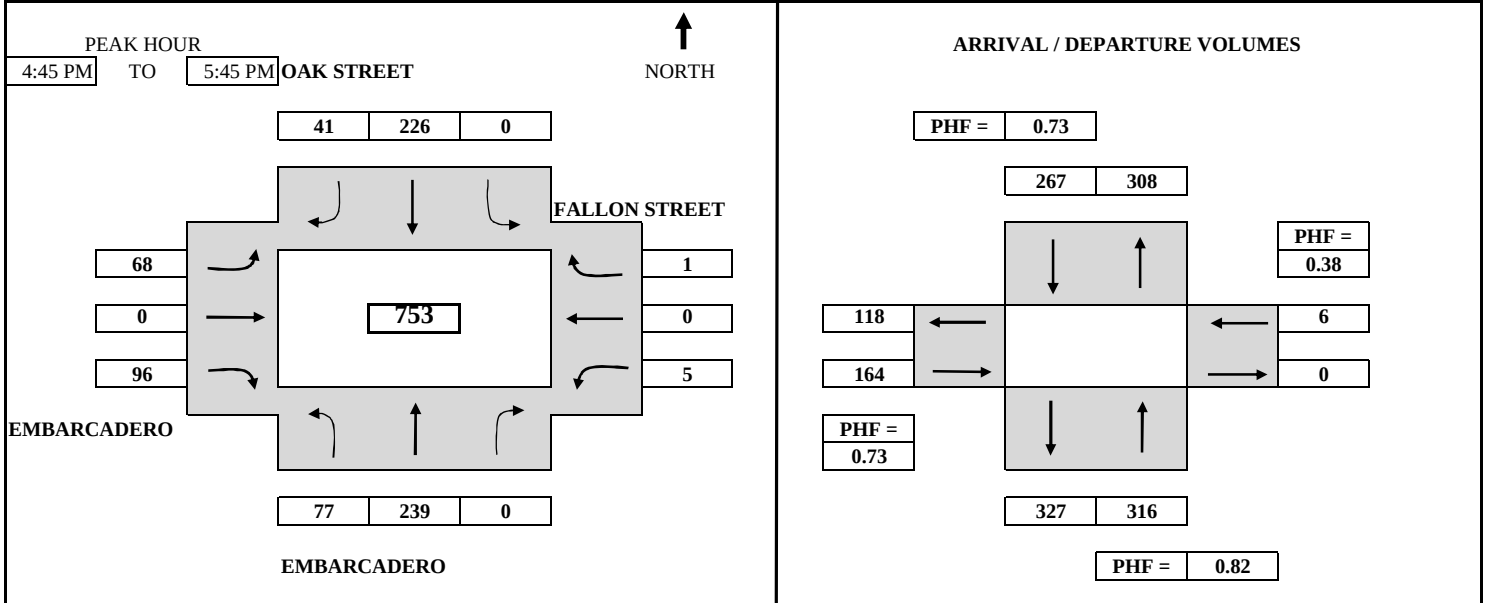
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: OAK STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH EMBARCADERO		JURISDICTION: OAKLAND		FILE:	3301002-11PM



TIME	PERIOD	NORTHBOUND			SOUTHBOUND			EASTBOUND			WB (FALLON STREET)			TOTAL
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA														
4:00 PM	to 4:15 PM	23	74		31	11		14		29	0		0	182
4:15 PM	to 4:30 PM	37	124		59	20		35		50	3		0	328
4:30 PM	to 4:45 PM	55	178		109	28		44		85	3		0	502
4:45 PM	to 5:00 PM	71	234		148	38		60		125	3		0	679
5:00 PM	to 5:15 PM	93	274		196	49		74		144	3		0	833
5:15 PM	to 5:30 PM	112	341		253	59		91		168	7		0	1031
5:30 PM	to 5:45 PM	132	417		335	69		112		181	8		1	1255
5:45 PM	to 6:00 PM	148	461		381	76		125		192	8		1	1392
TOTAL BY PERIOD														
4:00 PM	to 4:15 PM	23	74	0	0	31	11	14	0	29	0	0	0	182
4:15 PM	to 4:30 PM	14	50	0	0	28	9	21	0	21	3	0	0	146
4:30 PM	to 4:45 PM	18	54	0	0	50	8	9	0	35	0	0	0	174
4:45 PM	to 5:00 PM	16	56	0	0	39	10	16	0	40	0	0	0	177
5:00 PM	to 5:15 PM	22	40	0	0	48	11	14	0	19	0	0	0	154
5:15 PM	to 5:30 PM	19	67	0	0	57	10	17	0	24	4	0	0	198
5:30 PM	to 5:45 PM	20	76	0	0	82	10	21	0	13	1	0	1	224
5:45 PM	to 6:00 PM	16	44	0	0	46	7	13	0	11	0	0	0	137
HOURLY TOTALS														
4:00 PM	to 5:00 PM	71	234	0	0	148	38	60	0	125	3	0	0	679
4:15 PM	to 5:15 PM	70	200	0	0	165	38	60	0	115	3	0	0	651
4:30 PM	to 5:30 PM	75	217	0	0	194	39	56	0	118	4	0	0	703
4:45 PM	to 5:45 PM	77	239	0	0	226	41	68	0	96	5	0	1	753
5:00 PM	to 6:00 PM	77	227	0	0	233	38	65	0	67	5	0	1	713
PEAK HOUR SUMMARY														
4:45 PM	to 5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME		77	239	0	0	226	41	68	0	96	5	0	1	753
PHF BY MOVEMENT		0.88	0.79	0.00	0.00	0.69	0.93	0.81	0.00	0.60	0.31	0.00	0.25	OVERALL
PHF BY APPROACH		0.82			0.73			0.73			0.38			0.84

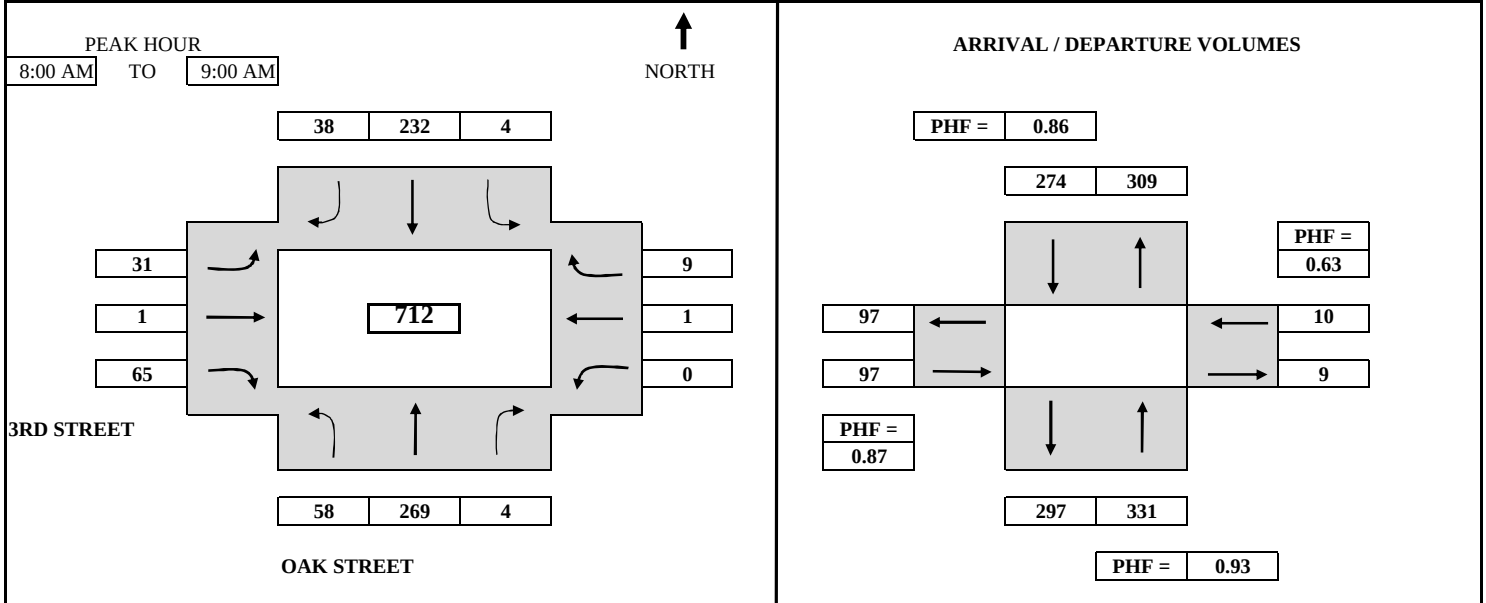
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: OAK STREET		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH 3RD STREET		JURISDICTION: OAKLAND		FILE:	3301002-12AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	1	28	0	2	23	4	4	1	3	1	0	4	71
7:15 AM	to	7:30 AM	10	58	0	3	59	16	7	4	7	1	0	8	173
7:30 AM	to	7:45 AM	16	127	1	6	89	31	13	4	17	1	2	9	316
7:45 AM	to	8:00 AM	25	178	2	6	107	40	15	4	24	1	2	9	413
8:00 AM	to	8:15 AM	38	235	4	6	158	46	20	5	42	1	2	11	568
8:15 AM	to	8:30 AM	53	307	5	8	216	58	26	5	59	1	2	15	755
8:30 AM	to	8:45 AM	66	376	5	9	283	70	37	5	76	1	2	17	947
8:45 AM	to	9:00 AM	83	447	6	10	339	78	46	5	89	1	3	18	1125
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	1	28	0	2	23	4	4	1	3	1	0	4	71
7:15 AM	to	7:30 AM	9	30	0	1	36	12	3	3	4	0	0	4	102
7:30 AM	to	7:45 AM	6	69	1	3	30	15	6	0	10	0	2	1	143
7:45 AM	to	8:00 AM	9	51	1	0	18	9	2	0	7	0	0	0	97
8:00 AM	to	8:15 AM	13	57	2	0	51	6	5	1	18	0	0	2	155
8:15 AM	to	8:30 AM	15	72	1	2	58	12	6	0	17	0	0	4	187
8:30 AM	to	8:45 AM	13	69	0	1	67	12	11	0	17	0	0	2	192
8:45 AM	to	9:00 AM	17	71	1	1	56	8	9	0	13	0	1	1	178
HOURLY TOTALS															
7:00 AM	to	8:00 AM	25	178	2	6	107	40	15	4	24	1	2	9	413
7:15 AM	to	8:15 AM	37	207	4	4	135	42	16	4	39	0	2	7	497
7:30 AM	to	8:30 AM	43	249	5	5	157	42	19	1	52	0	2	7	582
7:45 AM	to	8:45 AM	50	249	4	3	194	39	24	1	59	0	0	8	631
8:00 AM	to	9:00 AM	58	269	4	4	232	38	31	1	65	0	1	9	712
PEAK HOUR SUMMARY															
8:00 AM	to	9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			58	269	4	4	232	38	31	1	65	0	1	9	712
PHF BY MOVEMENT			0.85	0.93	0.50	0.50	0.87	0.79	0.70	0.25	0.90	0.00	0.25	0.56	OVERALL
PHF BY APPROACH			0.93			0.86			0.87			0.63			0.93
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

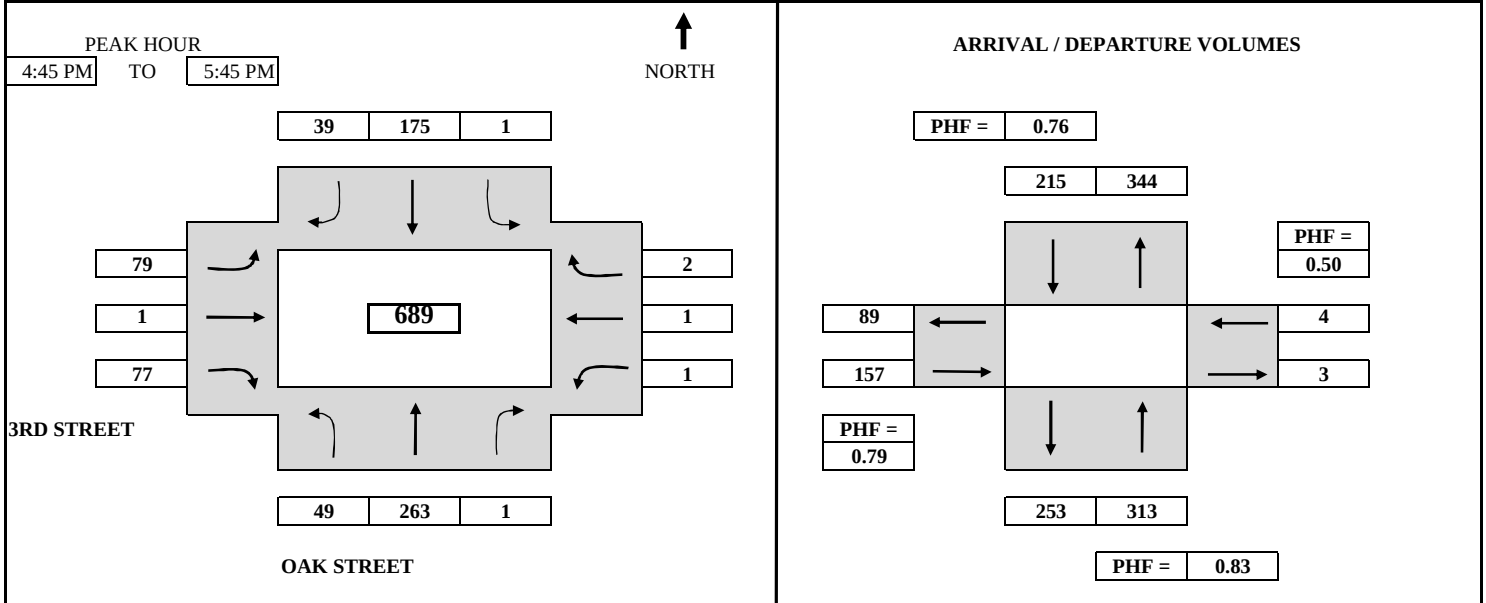
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: OAK STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 3RD STREET		JURISDICTION: OAKLAND		FILE:	3301002-12PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	16	71	0	0	32	9	11	0	11	0	0	1	151
4:15 PM	to	4:30 PM	25	137	0	0	50	14	28	1	25	0	0	1	281
4:30 PM	to	4:45 PM	36	189	0	0	80	31	45	1	45	0	0	1	428
4:45 PM	to	5:00 PM	42	254	0	0	118	44	57	2	63	1	0	1	582
5:00 PM	to	5:15 PM	48	304	0	0	152	51	81	2	83	1	1	2	725
5:15 PM	to	5:30 PM	64	381	1	1	193	61	95	2	101	1	1	3	904
5:30 PM	to	5:45 PM	85	452	1	1	255	70	124	2	122	1	1	3	1117
5:45 PM	to	6:00 PM	93	508	1	1	288	77	137	2	140	1	1	3	1252
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	16	71	0	0	32	9	11	0	11	0	0	1	151
4:15 PM	to	4:30 PM	9	66	0	0	18	5	17	1	14	0	0	0	130
4:30 PM	to	4:45 PM	11	52	0	0	30	17	17	0	20	0	0	0	147
4:45 PM	to	5:00 PM	6	65	0	0	38	13	12	1	18	1	0	0	154
5:00 PM	to	5:15 PM	6	50	0	0	34	7	24	0	20	0	1	1	143
5:15 PM	to	5:30 PM	16	77	1	1	41	10	14	0	18	0	0	1	179
5:30 PM	to	5:45 PM	21	71	0	0	62	9	29	0	21	0	0	0	213
5:45 PM	to	6:00 PM	8	56	0	0	33	7	13	0	18	0	0	0	135
HOURLY TOTALS															
4:00 PM	to	5:00 PM	42	254	0	0	118	44	57	2	63	1	0	1	582
4:15 PM	to	5:15 PM	32	233	0	0	120	42	70	2	72	1	1	1	574
4:30 PM	to	5:30 PM	39	244	1	1	143	47	67	1	76	1	1	2	623
4:45 PM	to	5:45 PM	49	263	1	1	175	39	79	1	77	1	1	2	689
5:00 PM	to	6:00 PM	51	254	1	1	170	33	80	0	77	0	1	2	670
PEAK HOUR SUMMARY															
4:45 PM	to	5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			49	263	1	1	175	39	79	1	77	1	1	2	689
PHF BY MOVEMENT			0.58	0.85	0.25	0.25	0.71	0.75	0.68	0.25	0.92	0.25	0.25	0.50	OVERALL
PHF BY APPROACH			0.83			0.76			0.79			0.50			0.81
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

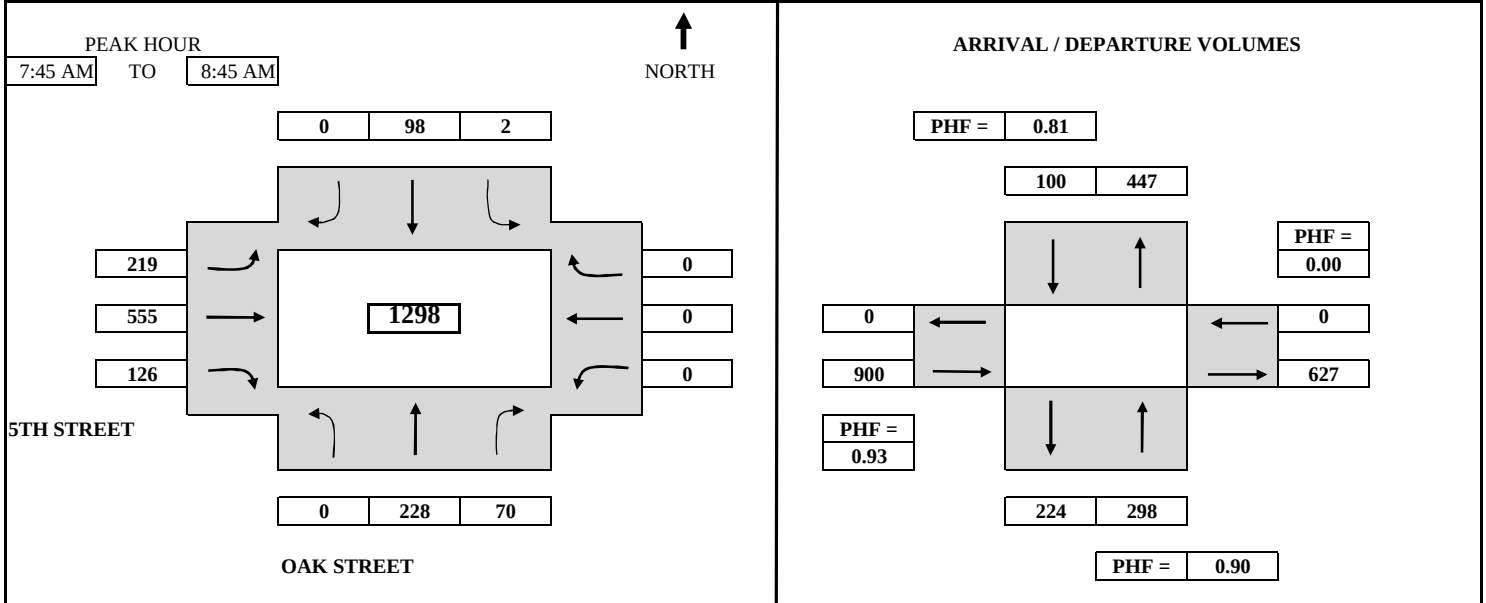
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: OAK STREET		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH 5TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-13AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	32	11		0	33		27	108	17				228
7:15 AM	to	7:30 AM	76	24		0	54		58	227	38				477
7:30 AM	to	7:45 AM	135	36		1	72		105	374	66				789
7:45 AM	to	8:00 AM	191	50		2	92		156	511	90				1092
8:00 AM	to	8:15 AM	239	69		2	113		205	660	119				1407
8:15 AM	to	8:30 AM	296	90		3	139		267	803	155				1753
8:30 AM	to	8:45 AM	363	106		3	170		324	929	192				2087
8:45 AM	to	9:00 AM	429	124		3	188		379	1034	227				2384
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	0	32	11	0	33	0	27	108	17	0	0	0	228
7:15 AM	to	7:30 AM	0	44	13	0	21	0	31	119	21	0	0	0	249
7:30 AM	to	7:45 AM	0	59	12	1	18	0	47	147	28	0	0	0	312
7:45 AM	to	8:00 AM	0	56	14	1	20	0	51	137	24	0	0	0	303
8:00 AM	to	8:15 AM	0	48	19	0	21	0	49	149	29	0	0	0	315
8:15 AM	to	8:30 AM	0	57	21	1	26	0	62	143	36	0	0	0	346
8:30 AM	to	8:45 AM	0	67	16	0	31	0	57	126	37	0	0	0	334
8:45 AM	to	9:00 AM	0	66	18	0	18	0	55	105	35	0	0	0	297
HOURLY TOTALS															
7:00 AM	to	8:00 AM	0	191	50	2	92	0	156	511	90	0	0	0	1092
7:15 AM	to	8:15 AM	0	207	58	2	80	0	178	552	102	0	0	0	1179
7:30 AM	to	8:30 AM	0	220	66	3	85	0	209	576	117	0	0	0	1276
7:45 AM	to	8:45 AM	0	228	70	2	98	0	219	555	126	0	0	0	1298
8:00 AM	to	9:00 AM	0	238	74	1	96	0	223	523	137	0	0	0	1292
PEAK HOUR SUMMARY															
7:45 AM	to	8:45 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	228	70	2	98	0	219	555	126	0	0	0	1298
PHF BY MOVEMENT			0.00	0.85	0.83	0.50	0.79	0.00	0.88	0.93	0.85	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.90			0.81			0.93			0.00			0.94
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

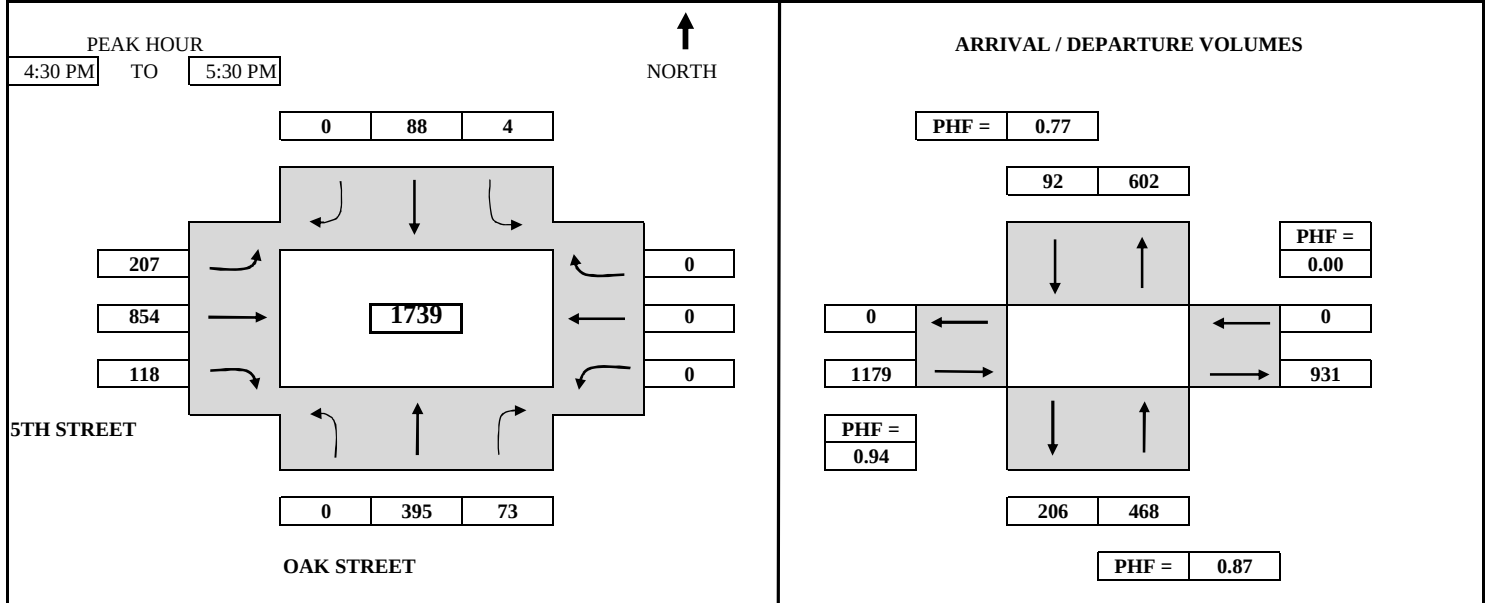
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: OAK STREET		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH 5TH STREET		JURISDICTION: OAKLAND		FILE:	3301002-13PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	81	18		1	15		37	231	25				408
4:15 PM	to	4:30 PM	157	37		3	29		76	465	46				813
4:30 PM	to	4:45 PM	240	52		5	47		119	684	77				1224
4:45 PM	to	5:00 PM	344	68		5	69		164	888	102				1640
5:00 PM	to	5:15 PM	455	92		6	88		216	1101	135				2093
5:15 PM	to	5:30 PM	552	110		7	117		283	1319	164				2552
5:30 PM	to	5:45 PM	626	125		9	142		339	1511	198				2950
5:45 PM	to	6:00 PM	695	139		9	162		390	1689	225				3309
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	0	81	18	1	15	0	37	231	25	0	0	0	408
4:15 PM	to	4:30 PM	0	76	19	2	14	0	39	234	21	0	0	0	405
4:30 PM	to	4:45 PM	0	83	15	2	18	0	43	219	31	0	0	0	411
4:45 PM	to	5:00 PM	0	104	16	0	22	0	45	204	25	0	0	0	416
5:00 PM	to	5:15 PM	0	111	24	1	19	0	52	213	33	0	0	0	453
5:15 PM	to	5:30 PM	0	97	18	1	29	0	67	218	29	0	0	0	459
5:30 PM	to	5:45 PM	0	74	15	2	25	0	56	192	34	0	0	0	398
5:45 PM	to	6:00 PM	0	69	14	0	20	0	51	178	27	0	0	0	359
HOURLY TOTALS															
4:00 PM	to	5:00 PM	0	344	68	5	69	0	164	888	102	0	0	0	1640
4:15 PM	to	5:15 PM	0	374	74	5	73	0	179	870	110	0	0	0	1685
4:30 PM	to	5:30 PM	0	395	73	4	88	0	207	854	118	0	0	0	1739
4:45 PM	to	5:45 PM	0	386	73	4	95	0	220	827	121	0	0	0	1726
5:00 PM	to	6:00 PM	0	351	71	4	93	0	226	801	123	0	0	0	1669
PEAK HOUR SUMMARY															
4:30 PM	to	5:30 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			0	395	73	4	88	0	207	854	118	0	0	0	1739
PHF BY MOVEMENT			0.00	0.89	0.76	0.50	0.76	0.00	0.77	0.97	0.89	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.87			0.77			0.94			0.00			0.95
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

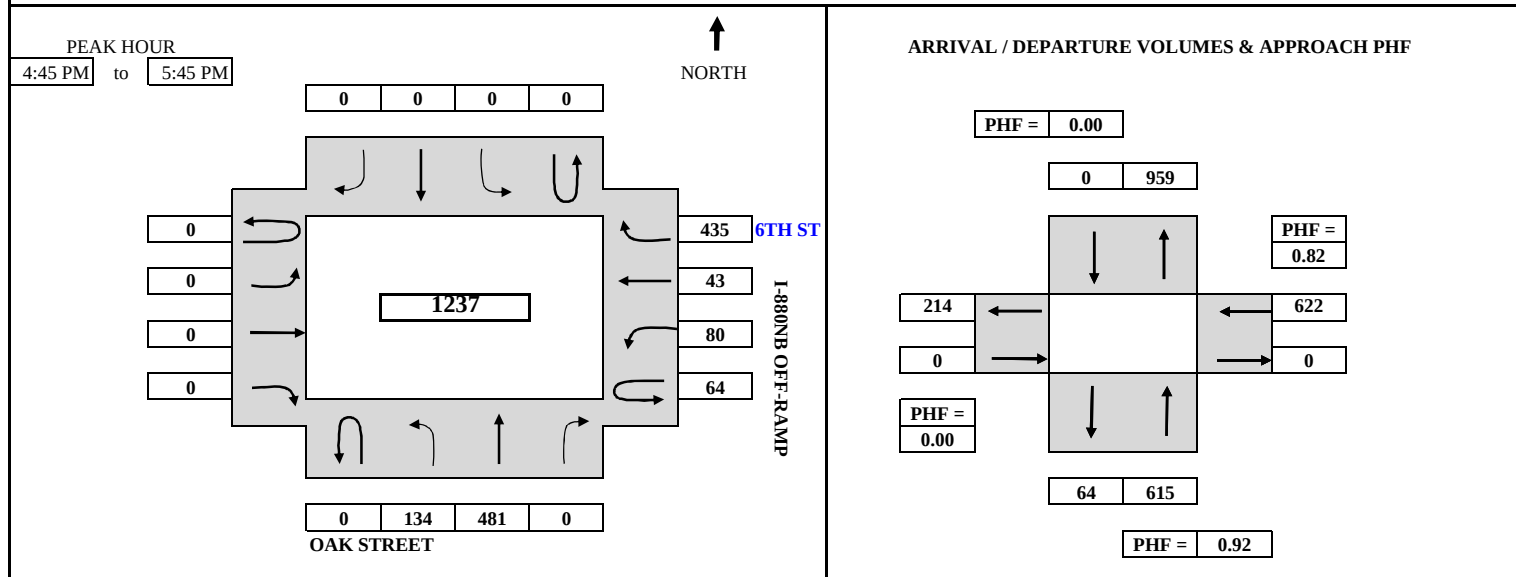
INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/13/2013				DAY: WEDNESDAY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
N-S APPROACH: OAK STREET				SURVEY TIME: 7:00 AM				TO 9:00 AM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
E-W APPROACH: 6TH STREET				JURISDICTION: OAKLAND				FILE: 3302018-15AM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
PEAK HOUR 7:30 AM to 8:30 AM 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 26 541 66 81 1188 6TH ST I-880 NB OFF-RAMP 0 116 358 0 OAK STREET NORTH ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF PHF = 0.00 0925 PHF = 0.87 714 0 PHF = 0.99 81 474 PHF = 0.00 182 0												<table><tr><th colspan="2">TIME PERIOD</th><th colspan="4">NORTHBOUND</th><th colspan="4">SOUTHBOUND</th><th colspan="4">EASTBOUND</th><th colspan="4">(6th St) WESTBOUND</th><th rowspan="2">TOTAL</th></tr><tr><th>From</th><th>To</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th><th>U-TURN</th><th>LEFT</th><th>THRU</th><th>RIGHT</th><th>RIGHT</th><th>LEFT</th><th>THRU</th><th>RIGHT</th></tr><tr><td colspan="19">SURVEY DATA</td></tr><tr><td>7:00 AM</td><td>to 7:15 AM</td><td></td><td>21</td><td>47</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5</td><td>29</td><td>13</td><td>92</td><td>207</td></tr><tr><td>7:15 AM</td><td>to 7:30 AM</td><td></td><td>58</td><td>130</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td>52</td><td>24</td><td>223</td><td>495</td></tr><tr><td>7:30 AM</td><td>to 7:45 AM</td><td></td><td>99</td><td>209</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>10</td><td>71</td><td>39</td><td>392</td><td>820</td></tr><tr><td>7:45 AM</td><td>to 8:00 AM</td><td></td><td>128</td><td>297</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>17</td><td>91</td><td>54</td><td>529</td><td>1116</td></tr><tr><td>8:00 AM</td><td>to 8:15 AM</td><td></td><td>153</td><td>391</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>23</td><td>110</td><td>71</td><td>643</td><td>1391</td></tr><tr><td>8:15 AM</td><td>to 8:30 AM</td><td></td><td>174</td><td>488</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>34</td><td>133</td><td>90</td><td>764</td><td>1683</td></tr><tr><td>8:30 AM</td><td>to 8:45 AM</td><td></td><td>200</td><td>599</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>43</td><td>164</td><td>104</td><td>891</td><td>2001</td></tr><tr><td>8:45 AM</td><td>to 9:00 AM</td><td></td><td>217</td><td>702</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>47</td><td>184</td><td>116</td><td>993</td><td>2259</td></tr><tr><td colspan="19">TOTAL BY PERIOD</td></tr><tr><td>7:00 AM</td><td>to 7:15 AM</td><td>0</td><td>21</td><td>47</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>5</td><td>29</td><td>13</td><td>92</td><td>207</td></tr><tr><td>7:15 AM</td><td>to 7:30 AM</td><td>0</td><td>37</td><td>83</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td><td>23</td><td>11</td><td>131</td><td>288</td></tr><tr><td>7:30 AM</td><td>to 7:45 AM</td><td>0</td><td>41</td><td>79</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>19</td><td>15</td><td>169</td><td>325</td></tr><tr><td>7:45 AM</td><td>to 8:00 AM</td><td>0</td><td>29</td><td>88</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>7</td><td>20</td><td>15</td><td>137</td><td>296</td></tr><tr><td>8:00 AM</td><td>to 8:15 AM</td><td>0</td><td>25</td><td>94</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>6</td><td>19</td><td>17</td><td>114</td><td>275</td></tr><tr><td>8:15 AM</td><td>to 8:30 AM</td><td>0</td><td>21</td><td>97</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>11</td><td>23</td><td>19</td><td>121</td><td>292</td></tr><tr><td>8:30 AM</td><td>to 8:45 AM</td><td>0</td><td>26</td><td>111</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>9</td><td>31</td><td>14</td><td>127</td><td>318</td></tr><tr><td>8:45 AM</td><td>to 9:00 AM</td><td>0</td><td>17</td><td>103</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>4</td><td>20</td><td>12</td><td>102</td><td>258</td></tr><tr><td colspan="19">HOURLY TOTALS</td></tr><tr><td>7:00 AM</td><td>to 8:00 AM</td><td>0</td><td>128</td><td>297</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>17</td><td>91</td><td>54</td><td>529</td><td>1116</td></tr><tr><td>7:15 AM</td><td>to 8:15 AM</td><td>0</td><td>132</td><td>344</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>18</td><td>81</td><td>58</td><td>551</td><td>1184</td></tr><tr><td>7:30 AM</td><td>to 8:30 AM</td><td>0</td><td>116</td><td>358</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>26</td><td>81</td><td>66</td><td>541</td><td>1188</td></tr><tr><td>7:45 AM</td><td>to 8:45 AM</td><td>0</td><td>101</td><td>390</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>33</td><td>93</td><td>65</td><td>499</td><td>1181</td></tr><tr><td>8:00 AM</td><td>to 9:00 AM</td><td>0</td><td>89</td><td>405</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>30</td><td>93</td><td>62</td><td>464</td><td>1143</td></tr><tr><td colspan="19">PEAK HOUR SUMMARY</td></tr><tr><td>7:30 AM</td><td>to 8:30 AM</td><td>NBU</td><td>NBL</td><td>NBT</td><td>NBR</td><td>SBU</td><td>SBL</td><td>SBT</td><td>SBR</td><td>EBU</td><td>EBL</td><td>EBT</td><td>EBR</td><td>WBU</td><td>WBL</td><td>WBT</td><td>WBR</td><td>TOTAL</td></tr><tr><td colspan="2">VOLUME</td><td>0</td><td>116</td><td>358</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>26</td><td>81</td><td>66</td><td>541</td><td>1188</td></tr><tr><td colspan="2">PHF BY MOVEMENT</td><td>0.00</td><td>0.71</td><td>0.92</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.59</td><td>0.88</td><td>0.87</td><td>0.80</td><td>OVERALL</td></tr><tr><td colspan="2">PHF BY APPROACH</td><td colspan="4">0.99</td><td colspan="4">0.00</td><td colspan="4">0.00</td><td colspan="4">0.87</td><td>0.91</td></tr></table>												TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				(6th St) WESTBOUND				TOTAL	From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	RIGHT	LEFT	THRU	RIGHT	SURVEY DATA																			7:00 AM	to 7:15 AM		21	47										5	29	13	92	207	7:15 AM	to 7:30 AM		58	130										8	52	24	223	495	7:30 AM	to 7:45 AM		99	209										10	71	39	392	820	7:45 AM	to 8:00 AM		128	297										17	91	54	529	1116	8:00 AM	to 8:15 AM		153	391										23	110	71	643	1391	8:15 AM	to 8:30 AM		174	488										34	133	90	764	1683	8:30 AM	to 8:45 AM		200	599										43	164	104	891	2001	8:45 AM	to 9:00 AM		217	702										47	184	116	993	2259	TOTAL BY PERIOD																			7:00 AM	to 7:15 AM	0	21	47	0	0	0	0	0	0	0	0	0	5	29	13	92	207	7:15 AM	to 7:30 AM	0	37	83	0	0	0	0	0	0	0	0	0	3	23	11	131	288	7:30 AM	to 7:45 AM	0	41	79	0	0	0	0	0	0	0	0	0	2	19	15	169	325	7:45 AM	to 8:00 AM	0	29	88	0	0	0	0	0	0	0	0	0	7	20	15	137	296	8:00 AM	to 8:15 AM	0	25	94	0	0	0	0	0	0	0	0	0	6	19	17	114	275	8:15 AM	to 8:30 AM	0	21	97	0	0	0	0	0	0	0	0	0	11	23	19	121	292	8:30 AM	to 8:45 AM	0	26	111	0	0	0	0	0	0	0	0	0	9	31	14	127	318	8:45 AM	to 9:00 AM	0	17	103	0	0	0	0	0	0	0	0	0	4	20	12	102	258	HOURLY TOTALS																			7:00 AM	to 8:00 AM	0	128	297	0	0	0	0	0	0	0	0	0	17	91	54	529	1116	7:15 AM	to 8:15 AM	0	132	344	0	0	0	0	0	0	0	0	0	18	81	58	551	1184	7:30 AM	to 8:30 AM	0	116	358	0	0	0	0	0	0	0	0	0	26	81	66	541	1188	7:45 AM	to 8:45 AM	0	101	390	0	0	0	0	0	0	0	0	0	33	93	65	499	1181	8:00 AM	to 9:00 AM	0	89	405	0	0	0	0	0	0	0	0	0	30	93	62	464	1143	PEAK HOUR SUMMARY																			7:30 AM	to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL	VOLUME		0	116	358	0	0	0	0	0	0	0	0	0	26	81	66	541	1188	PHF BY MOVEMENT		0.00	0.71	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.88	0.87	0.80	OVERALL	PHF BY APPROACH		0.99				0.00				0.00				0.87				0.91
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				(6th St) WESTBOUND				TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	RIGHT	LEFT	THRU	RIGHT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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8:00 AM	to 8:15 AM	0	25	94	0	0	0	0	0	0	0	0	0	6	19	17	114	275																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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8:45 AM	to 9:00 AM	0	17	103	0	0	0	0	0	0	0	0	0	4	20	12	102	258																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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7:00 AM	to 8:00 AM	0	128	297	0	0	0	0	0	0	0	0	0	17	91	54	529	1116																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
7:15 AM	to 8:15 AM	0	132	344	0	0	0	0	0	0	0	0	0	18	81	58	551	1184																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
7:30 AM	to 8:30 AM	0	116	358	0	0	0	0	0	0	0	0	0	26	81	66	541	1188																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
7:45 AM	to 8:45 AM	0	101	390	0	0	0	0	0	0	0	0	0	33	93	65	499	1181																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
8:00 AM	to 9:00 AM	0	89	405	0	0	0	0	0	0	0	0	0	30	93	62	464	1143																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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7:30 AM	to 8:30 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
VOLUME		0	116	358	0	0	0	0	0	0	0	0	0	26	81	66	541	1188																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
PHF BY MOVEMENT		0.00	0.71	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.88	0.87	0.80	OVERALL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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TEL: (510) 232 - 1271 FAX: (510) 232 - 1272																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	OAK STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	6TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-15PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				(6th St) WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM		41	69										9	18	10	87	234
4:15 PM	to 4:30 PM		76	152										18	35	16	158	455
4:30 PM	to 4:45 PM		112	241										25	56	27	239	700
4:45 PM	to 5:00 PM		145	362										47	80	38	341	1013
5:00 PM	to 5:15 PM		184	477										63	93	48	440	1305
5:15 PM	to 5:30 PM		216	613										75	118	61	579	1662
5:30 PM	to 5:45 PM		246	722										89	136	70	674	1937
5:45 PM	to 6:00 PM		275	823										98	157	79	791	2223

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	41	69	0	0	0	0	0	0	0	0	0	9	18	10	87	234
4:15 PM	to 4:30 PM	0	35	83	0	0	0	0	0	0	0	0	0	9	17	6	71	221
4:30 PM	to 4:45 PM	0	36	89	0	0	0	0	0	0	0	0	0	7	21	11	81	245
4:45 PM	to 5:00 PM	0	33	121	0	0	0	0	0	0	0	0	0	22	24	11	102	313
5:00 PM	to 5:15 PM	0	39	115	0	0	0	0	0	0	0	0	0	16	13	10	99	292
5:15 PM	to 5:30 PM	0	32	136	0	0	0	0	0	0	0	0	0	12	25	13	139	357
5:30 PM	to 5:45 PM	0	30	109	0	0	0	0	0	0	0	0	0	14	18	9	95	275
5:45 PM	to 6:00 PM	0	29	101	0	0	0	0	0	0	0	0	0	9	21	9	117	286

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	145	362	0	0	0	0	0	0	0	0	0	47	80	38	341	1013
4:15 PM	to 5:15 PM	0	143	408	0	0	0	0	0	0	0	0	0	54	75	38	353	1071
4:30 PM	to 5:30 PM	0	140	461	0	0	0	0	0	0	0	0	0	57	83	45	421	1207
4:45 PM	to 5:45 PM	0	134	481	0	0	0	0	0	0	0	0	0	64	80	43	435	1237
5:00 PM	to 6:00 PM	0	130	461	0	0	0	0	0	0	0	0	0	51	77	41	450	1210

PEAK HOUR SUMMARY																		
4:45 PM	to 5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	134	481	0	0	0	0	0	0	0	0	0	64	80	43	435	1237
PHF BY MOVEMENT		0.00	0.86	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.80	0.83	0.78	OVERALL
PHF BY APPROACH		0.92				0.00				0.00				0.82				0.87

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/13/2013				DAY: WEDNESDAY			
N-S APPROACH: OAK STREET				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH: 7TH STREET				JURISDICTION: OAKLAND				FILE: 3302018-16AM			

PEAK HOUR
7:45 AM to 8:45 AM

NORTH

7TH STREET

OAK STREET

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.00

0 918

PHF = 0.00

0 408

PHF = 0.85

0 908

PHF = 0.95

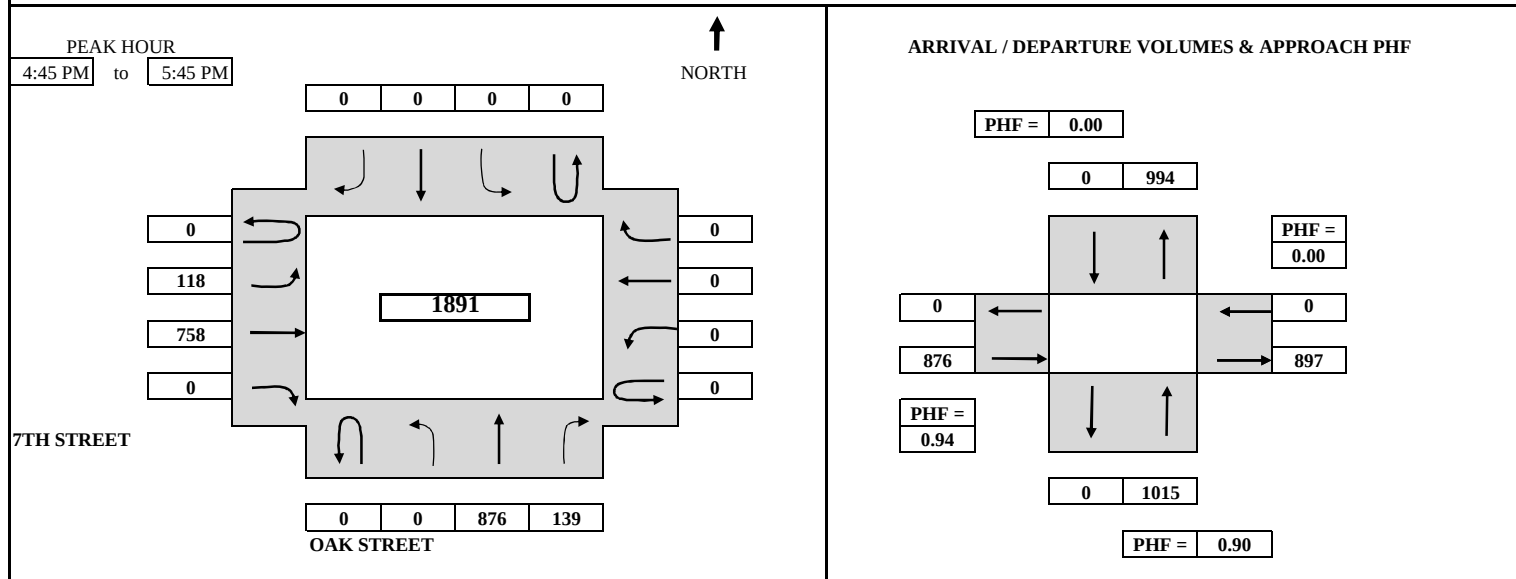
TIME PERIOD		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM			145	13					13	43							214
7:15 AM	to 7:30 AM			324	28					28	104							484
7:30 AM	to 7:45 AM			553	44					49	181							827
7:45 AM	to 8:00 AM			770	61					66	250							1147
8:00 AM	to 8:15 AM			973	75					89	327							1464
8:15 AM	to 8:30 AM			1168	98					108	410							1784
8:30 AM	to 8:45 AM			1387	118					133	505							2143
8:45 AM	to 9:00 AM			1570	143					152	592							2457
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	0	145	13	0	0	0	0	0	13	43	0	0	0	0	0	214
7:15 AM	to 7:30 AM	0	0	179	15	0	0	0	0	0	15	61	0	0	0	0	0	270
7:30 AM	to 7:45 AM	0	0	229	16	0	0	0	0	0	21	77	0	0	0	0	0	343
7:45 AM	to 8:00 AM	0	0	217	17	0	0	0	0	0	17	69	0	0	0	0	0	320
8:00 AM	to 8:15 AM	0	0	203	14	0	0	0	0	0	23	77	0	0	0	0	0	317
8:15 AM	to 8:30 AM	0	0	195	23	0	0	0	0	0	19	83	0	0	0	0	0	320
8:30 AM	to 8:45 AM	0	0	219	20	0	0	0	0	0	25	95	0	0	0	0	0	359
8:45 AM	to 9:00 AM	0	0	183	25	0	0	0	0	0	19	87	0	0	0	0	0	314
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	0	770	61	0	0	0	0	0	66	250	0	0	0	0	0	1147
7:15 AM	to 8:15 AM	0	0	828	62	0	0	0	0	0	76	284	0	0	0	0	0	1250
7:30 AM	to 8:30 AM	0	0	844	70	0	0	0	0	0	80	306	0	0	0	0	0	1300
7:45 AM	to 8:45 AM	0	0	834	74	0	0	0	0	0	84	324	0	0	0	0	0	1316
8:00 AM	to 9:00 AM	0	0	800	82	0	0	0	0	0	86	342	0	0	0	0	0	1310
PEAK HOUR SUMMARY																		
7:45 AM	to 8:45 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	0	834	74	0	0	0	0	0	84	324	0	0	0	0	0	1316
PHF BY MOVEMENT		0.00	0.00	0.95	0.80	0.00	0.00	0.00	0.00	0.00	0.84	0.85	0.00	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH		0.95				0.00				0.85				0.00				0.92

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/13/2013	DAY:	WEDNESDAY
N-S APPROACH:	OAK STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	7TH STREET	JURISDICTION:	OAKLAND	FILE:	3302018-16PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	

SURVEY DATA																		
4:00 PM	to	4:15 PM			156	19					27	141						343
4:15 PM	to	4:30 PM			305	45					53	280						683
4:30 PM	to	4:45 PM			481	73					84	433						1071
4:45 PM	to	5:00 PM			692	104					111	607						1514
5:00 PM	to	5:15 PM			925	136					136	803						2000
5:15 PM	to	5:30 PM			1170	173					165	996						2504
5:30 PM	to	5:45 PM			1357	212					202	1191						2962
5:45 PM	to	6:00 PM			1538	249					229	1363						3379

TOTAL BY PERIOD																		
4:00 PM	to	4:15 PM	0	0	156	19	0	0	0	0	0	27	141	0	0	0	0	343
4:15 PM	to	4:30 PM	0	0	149	26	0	0	0	0	0	26	139	0	0	0	0	340
4:30 PM	to	4:45 PM	0	0	176	28	0	0	0	0	0	31	153	0	0	0	0	388
4:45 PM	to	5:00 PM	0	0	211	31	0	0	0	0	0	27	174	0	0	0	0	443
5:00 PM	to	5:15 PM	0	0	233	32	0	0	0	0	0	25	196	0	0	0	0	486
5:15 PM	to	5:30 PM	0	0	245	37	0	0	0	0	0	29	193	0	0	0	0	504
5:30 PM	to	5:45 PM	0	0	187	39	0	0	0	0	0	37	195	0	0	0	0	458
5:45 PM	to	6:00 PM	0	0	181	37	0	0	0	0	0	27	172	0	0	0	0	417

HOURLY TOTALS																		
4:00 PM	to	5:00 PM	0	0	692	104	0	0	0	0	0	111	607	0	0	0	0	1514
4:15 PM	to	5:15 PM	0	0	769	117	0	0	0	0	0	109	662	0	0	0	0	1657
4:30 PM	to	5:30 PM	0	0	865	128	0	0	0	0	0	112	716	0	0	0	0	1821
4:45 PM	to	5:45 PM	0	0	876	139	0	0	0	0	0	118	758	0	0	0	0	1891
5:00 PM	to	6:00 PM	0	0	846	145	0	0	0	0	0	118	756	0	0	0	0	1865

						PEAK HOUR SUMMARY													
4:45 PM	to	5:45 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME			0	0	876	139	0	0	0	0	0	118	758	0	0	0	0	0	1891
PHF BY MOVEMENT			0.00	0.00	0.89	0.89	0.00	0.00	0.00	0.00	0.00	0.80	0.97	0.00	0.00	0.00	0.00	0.00	OVERALL
PHF BY APPROACH			0.90				0.00				0.94				0.00				0.94

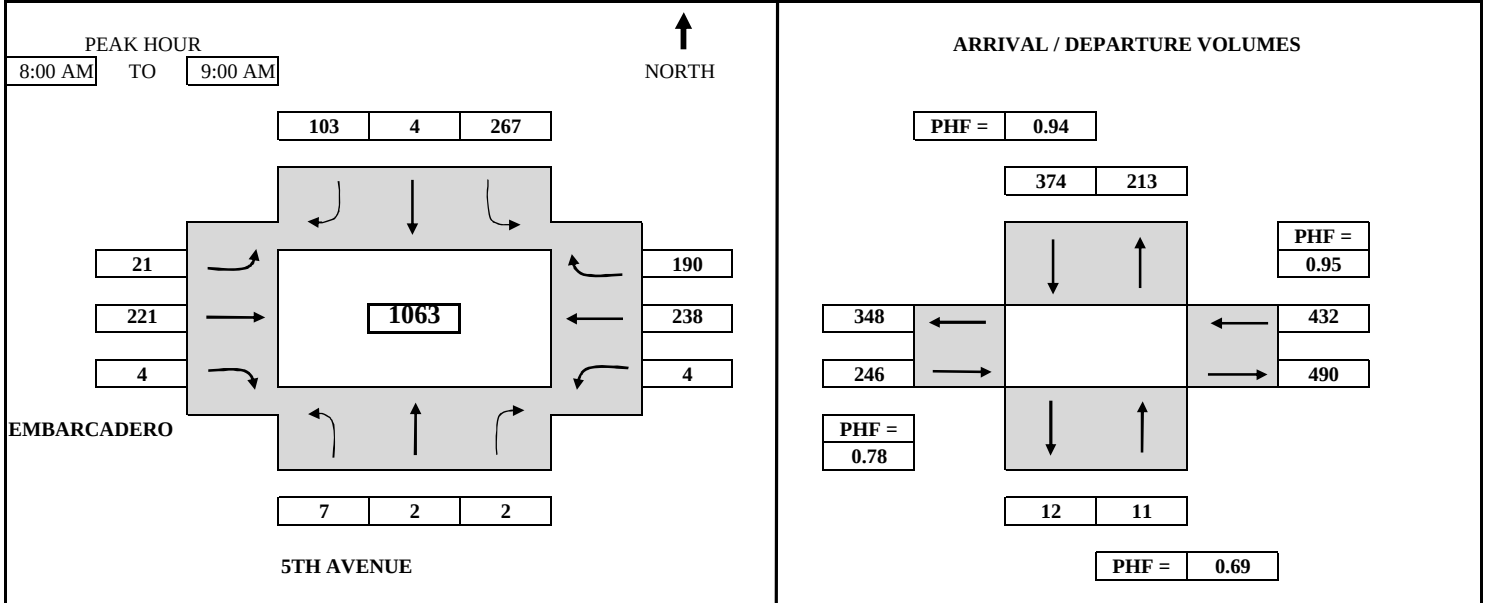
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: 5TH AVENUE		SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH EMBARCADERO		JURISDICTION:	OAKLAND	FILE:	3301002-14AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	0	0	0	47	0	15	1	28	0	0	16	26	133
7:15 AM	to	7:30 AM	1	0	0	98	0	28	5	46	0	0	47	61	286
7:30 AM	to	7:45 AM	3	0	1	169	0	37	7	71	0	0	82	107	477
7:45 AM	to	8:00 AM	3	0	1	241	0	54	10	90	0	0	120	156	675
8:00 AM	to	8:15 AM	3	1	2	306	2	76	18	152	0	1	175	207	943
8:15 AM	to	8:30 AM	4	1	2	378	2	104	24	224	1	2	239	255	1236
8:30 AM	to	8:45 AM	6	2	3	446	2	134	26	275	2	2	301	307	1506
8:45 AM	to	9:00 AM	10	2	3	508	4	157	31	311	4	4	358	346	1738
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	0	0	0	47	0	15	1	28	0	0	16	26	133
7:15 AM	to	7:30 AM	1	0	0	51	0	13	4	18	0	0	31	35	153
7:30 AM	to	7:45 AM	2	0	1	71	0	9	2	25	0	0	35	46	191
7:45 AM	to	8:00 AM	0	0	0	72	0	17	3	19	0	0	38	49	198
8:00 AM	to	8:15 AM	0	1	1	65	2	22	8	62	0	1	55	51	268
8:15 AM	to	8:30 AM	1	0	0	72	0	28	6	72	1	1	64	48	293
8:30 AM	to	8:45 AM	2	1	1	68	0	30	2	51	1	0	62	52	270
8:45 AM	to	9:00 AM	4	0	0	62	2	23	5	36	2	2	57	39	232
HOURLY TOTALS															
7:00 AM	to	8:00 AM	3	0	1	241	0	54	10	90	0	0	120	156	675
7:15 AM	to	8:15 AM	3	1	2	259	2	61	17	124	0	1	159	181	810
7:30 AM	to	8:30 AM	3	1	2	280	2	76	19	178	1	2	192	194	950
7:45 AM	to	8:45 AM	3	2	2	277	2	97	19	204	2	2	219	200	1029
8:00 AM	to	9:00 AM	7	2	2	267	4	103	21	221	4	4	238	190	1063
PEAK HOUR SUMMARY															
8:00 AM	to	9:00 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			7	2	2	267	4	103	21	221	4	4	238	190	1063
PHF BY MOVEMENT			0.44	0.50	0.50	0.93	0.50	0.86	0.66	0.77	0.50	0.50	0.93	0.91	OVERALL
PHF BY APPROACH			0.69			0.94			0.78			0.95			0.91
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

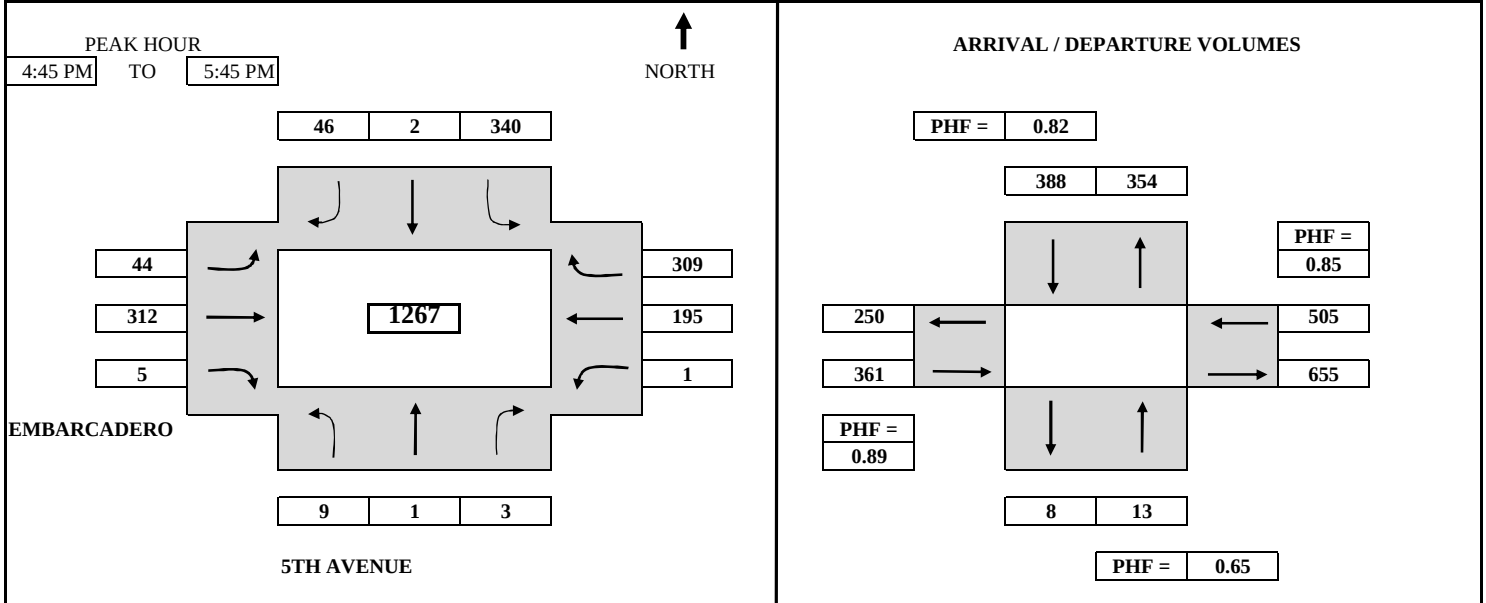
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH: 5TH AVENUE		SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH EMBARCADERO		JURISDICTION:	OAKLAND	FILE:	3301002-14PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	1	1	0	59	1	22	9	46	0	1	49	61	250
4:15 PM	to	4:30 PM	2	3	3	121	1	36	12	94	1	1	101	140	515
4:30 PM	to	4:45 PM	2	4	4	185	1	50	27	164	2	1	145	217	802
4:45 PM	to	5:00 PM	3	4	4	252	2	58	35	234	3	1	198	282	1076
5:00 PM	to	5:15 PM	3	5	6	355	3	73	50	300	4	2	245	368	1414
5:15 PM	to	5:30 PM	7	5	7	440	3	81	56	391	6	2	302	460	1760
5:30 PM	to	5:45 PM	11	5	7	525	3	96	71	476	7	2	340	526	2069
5:45 PM	to	6:00 PM	11	5	8	586	3	107	79	539	8	2	381	593	2322
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	1	1	0	59	1	22	9	46	0	1	49	61	250
4:15 PM	to	4:30 PM	1	2	3	62	0	14	3	48	1	0	52	79	265
4:30 PM	to	4:45 PM	0	1	1	64	0	14	15	70	1	0	44	77	287
4:45 PM	to	5:00 PM	1	0	0	67	1	8	8	70	1	0	53	65	274
5:00 PM	to	5:15 PM	0	1	2	103	1	15	15	66	1	1	47	86	338
5:15 PM	to	5:30 PM	4	0	1	85	0	8	6	91	2	0	57	92	346
5:30 PM	to	5:45 PM	4	0	0	85	0	15	15	85	1	0	38	66	309
5:45 PM	to	6:00 PM	0	0	1	61	0	11	8	63	1	0	41	67	253
HOURLY TOTALS															
4:00 PM	to	5:00 PM	3	4	4	252	2	58	35	234	3	1	198	282	1076
4:15 PM	to	5:15 PM	2	4	6	296	2	51	41	254	4	1	196	307	1164
4:30 PM	to	5:30 PM	5	2	4	319	2	45	44	297	5	1	201	320	1245
4:45 PM	to	5:45 PM	9	1	3	340	2	46	44	312	5	1	195	309	1267
5:00 PM	to	6:00 PM	8	1	4	334	1	49	44	305	5	1	183	311	1246
PEAK HOUR SUMMARY															
4:45 PM	to	5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			9	1	3	340	2	46	44	312	5	1	195	309	1267
PHF BY MOVEMENT			0.56	0.25	0.38	0.83	0.50	0.77	0.73	0.86	0.63	0.25	0.86	0.84	OVERALL
PHF BY APPROACH			0.65			0.82			0.89			0.85			0.92
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

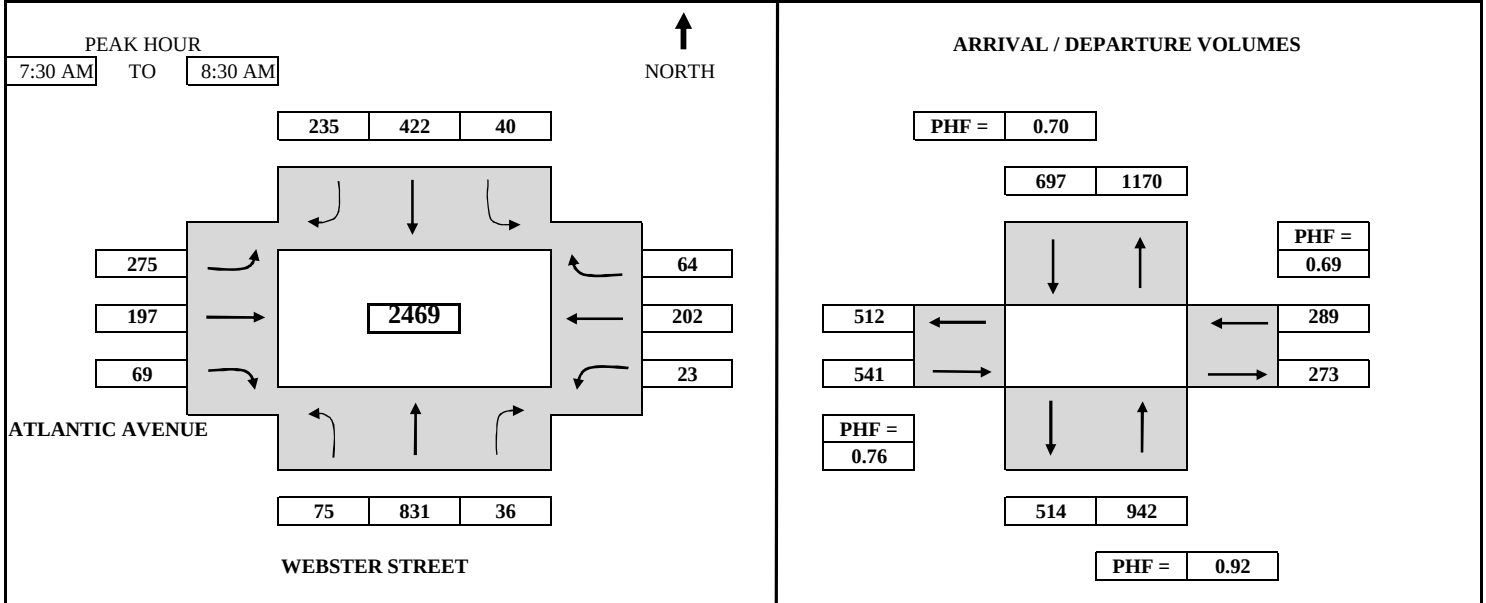
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH:	WEBSTER STREET	SURVEY TIME:	7:00 AM	TO	9:00 AM
E-W APPROACH:	ATLANTIC AVENUE	JURISDICTION:	OAKLAND	FILE:	3301002-15AM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From	To		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
7:00 AM	to	7:15 AM	9	145	4	9	45	30	55	0	4	1	24	15	341
7:15 AM	to	7:30 AM	12	287	8	18	114	66	122	18	10	4	43	29	731
7:30 AM	to	7:45 AM	21	493	18	31	211	117	168	45	21	6	74	45	1250
7:45 AM	to	8:00 AM	46	713	29	39	365	205	262	99	52	17	155	57	2039
8:00 AM	to	8:15 AM	73	923	40	48	464	258	333	161	64	18	208	69	2659
8:15 AM	to	8:30 AM	87	1118	44	58	536	301	397	215	79	27	245	93	3200
8:30 AM	to	8:45 AM	113	1295	56	72	593	328	450	249	89	36	278	103	3662
8:45 AM	to	9:00 AM	123	1449	63	84	681	377	489	289	99	42	315	118	4129
TOTAL BY PERIOD															
7:00 AM	to	7:15 AM	9	145	4	9	45	30	55	0	4	1	24	15	341
7:15 AM	to	7:30 AM	3	142	4	9	69	36	67	18	6	3	19	14	390
7:30 AM	to	7:45 AM	9	206	10	13	97	51	46	27	11	2	31	16	519
7:45 AM	to	8:00 AM	25	220	11	8	154	88	94	54	31	11	81	12	789
8:00 AM	to	8:15 AM	27	210	11	9	99	53	71	62	12	1	53	12	620
8:15 AM	to	8:30 AM	14	195	4	10	72	43	64	54	15	9	37	24	541
8:30 AM	to	8:45 AM	26	177	12	14	57	27	53	34	10	9	33	10	462
8:45 AM	to	9:00 AM	10	154	7	12	88	49	39	40	10	6	37	15	467
HOURLY TOTALS															
7:00 AM	to	8:00 AM	46	713	29	39	365	205	262	99	52	17	155	57	2039
7:15 AM	to	8:15 AM	64	778	36	39	419	228	278	161	60	17	184	54	2318
7:30 AM	to	8:30 AM	75	831	36	40	422	235	275	197	69	23	202	64	2469
7:45 AM	to	8:45 AM	92	802	38	41	382	211	282	204	68	30	204	58	2412
8:00 AM	to	9:00 AM	77	736	34	45	316	172	227	190	47	25	160	61	2090
PEAK HOUR SUMMARY															
7:30 AM	to	8:30 AM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			75	831	36	40	422	235	275	197	69	23	202	64	2469
PHF BY MOVEMENT			0.69	0.94	0.82	0.77	0.69	0.67	0.73	0.79	0.56	0.52	0.62	0.67	OVERALL
PHF BY APPROACH			0.92			0.70			0.76			0.69			0.78
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

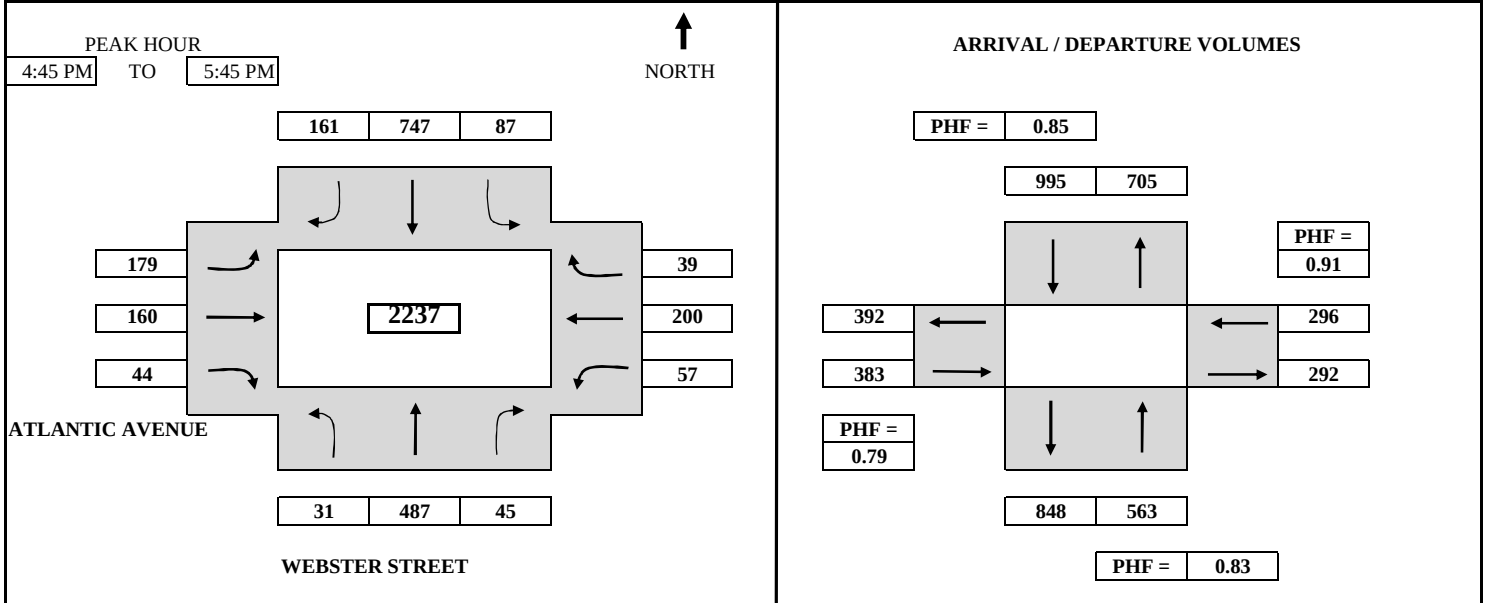
TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY	SURVEY DATE:	1/15/2013	DAY:	TUESDAY
N-S APPROACH:	WEBSTER STREET	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	ATLANTIC AVENUE	JURISDICTION:	OAKLAND	FILE:	3301002-15PM



TIME PERIOD			NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
From		To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
SURVEY DATA															
4:00 PM	to	4:15 PM	16	96	8	14	113	26	52	35	13	10	35	12	430
4:15 PM	to	4:30 PM	29	218	18	44	262	63	102	67	35	26	65	22	951
4:30 PM	to	4:45 PM	36	331	31	65	415	101	158	109	45	38	108	34	1471
4:45 PM	to	5:00 PM	43	455	39	93	596	143	224	148	61	52	162	42	2058
5:00 PM	to	5:15 PM	57	569	48	106	739	170	258	176	69	65	203	51	2511
5:15 PM	to	5:30 PM	62	669	60	125	943	217	298	220	80	77	256	62	3069
5:30 PM	to	5:45 PM	67	818	76	152	1162	262	337	269	89	95	308	73	3708
5:45 PM	to	6:00 PM	78	926	86	172	1338	300	387	336	96	108	355	83	4265
TOTAL BY PERIOD															
4:00 PM	to	4:15 PM	16	96	8	14	113	26	52	35	13	10	35	12	430
4:15 PM	to	4:30 PM	13	122	10	30	149	37	50	32	22	16	30	10	521
4:30 PM	to	4:45 PM	7	113	13	21	153	38	56	42	10	12	43	12	520
4:45 PM	to	5:00 PM	7	124	8	28	181	42	66	39	16	14	54	8	587
5:00 PM	to	5:15 PM	14	114	9	13	143	27	34	28	8	13	41	9	453
5:15 PM	to	5:30 PM	5	100	12	19	204	47	40	44	11	12	53	11	558
5:30 PM	to	5:45 PM	5	149	16	27	219	45	39	49	9	18	52	11	639
5:45 PM	to	6:00 PM	11	108	10	20	176	38	50	67	7	13	47	10	557
HOURLY TOTALS															
4:00 PM	to	5:00 PM	43	455	39	93	596	143	224	148	61	52	162	42	2058
4:15 PM	to	5:15 PM	41	473	40	92	626	144	206	141	56	55	168	39	2081
4:30 PM	to	5:30 PM	33	451	42	81	681	154	196	153	45	51	191	40	2118
4:45 PM	to	5:45 PM	31	487	45	87	747	161	179	160	44	57	200	39	2237
5:00 PM	to	6:00 PM	35	471	47	79	742	157	163	188	35	56	193	41	2207
PEAK HOUR SUMMARY															
4:45 PM	to	5:45 PM	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
VOLUME			31	487	45	87	747	161	179	160	44	57	200	39	2237
PHF BY MOVEMENT			0.55	0.82	0.70	0.78	0.85	0.86	0.68	0.82	0.69	0.79	0.93	0.89	OVERALL
PHF BY APPROACH			0.83			0.85			0.79			0.91			0.88
TEL: (510) 232 - 1271 FAX: (510) 232 - 1272															

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT: JACK LONDON SQUARE STUDY (II)				SURVEY DATE: 2/14/2013				DAY: THURSDAY			
N-S APPROACH: CONSTITUTION WAY				SURVEY TIME: 7:00 AM				TO 9:00 AM			
E-W APPROACH: ATLANTIC AVENUE				JURISDICTION: ALAMEDA				FILE: 3302018-17AM			

PEAK HOUR
7:45 AM to 8:45 AM

ATLANTIC AVENUE

CONSTITUTION WAY

ARRIVAL / DEPARTURE VOLUMES & APPROACH PHF

PHF = 0.90

412 962

PHF = 0.72

312 286

342 290

PHF = 0.81

412 936

PHF = 0.86

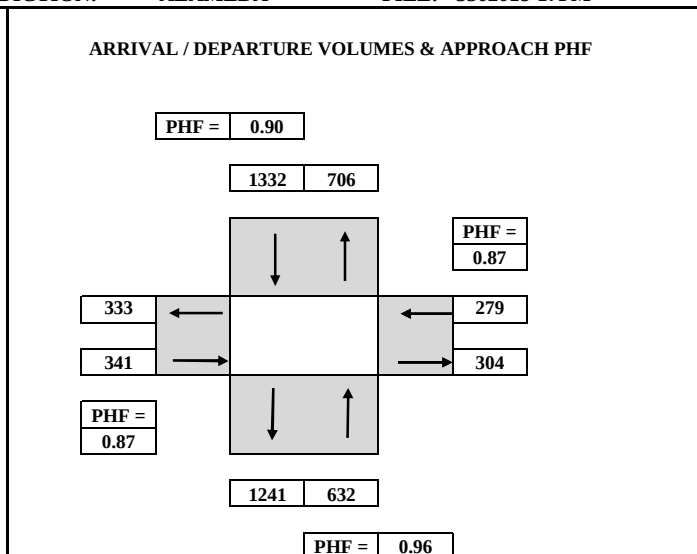
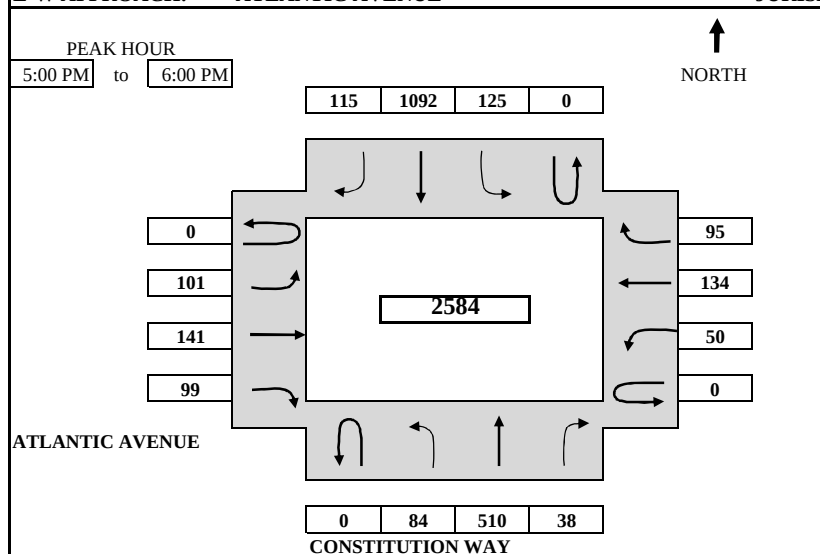
TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
7:00 AM	to 7:15 AM	9	122	2		16	45	8		9	11	5		0	18	17		262
7:15 AM	to 7:30 AM	20	269	2		25	99	19		20	18	13		6	27	33		551
7:30 AM	to 7:45 AM	32	449	8		33	178	32		32	36	23		15	46	56		940
7:45 AM	to 8:00 AM	68	642	12		49	237	40		52	74	39		28	105	84		1430
8:00 AM	to 8:15 AM	97	875	21		70	323	48		83	120	67		35	145	105		1989
8:15 AM	to 8:30 AM	115	1069	37		91	398	59		107	164	85		42	183	122		2472
8:30 AM	to 8:45 AM	139	1236	50		108	481	66		125	209	99		48	217	138		2916
8:45 AM	to 9:00 AM	186	1407	66		124	563	76		141	247	107		55	252	155		3379
TOTAL BY PERIOD																		
7:00 AM	to 7:15 AM	0	9	122	2	0	16	45	8	0	9	11	5	0	0	18	17	262
7:15 AM	to 7:30 AM	0	11	147	0	0	9	54	11	0	11	7	8	0	6	9	16	289
7:30 AM	to 7:45 AM	0	12	180	6	0	8	79	13	0	12	18	10	0	9	19	23	389
7:45 AM	to 8:00 AM	0	36	193	4	0	16	59	8	0	20	38	16	0	13	59	28	490
8:00 AM	to 8:15 AM	0	29	233	9	0	21	86	8	0	31	46	28	0	7	40	21	559
8:15 AM	to 8:30 AM	0	18	194	16	0	21	75	11	0	24	44	18	0	7	38	17	483
8:30 AM	to 8:45 AM	0	24	167	13	0	17	83	7	0	18	45	14	0	6	34	16	444
8:45 AM	to 9:00 AM	0	47	171	16	0	16	82	10	0	16	38	8	0	7	35	17	463
HOURLY TOTALS																		
7:00 AM	to 8:00 AM	0	68	642	12	0	49	237	40	0	52	74	39	0	28	105	84	1430
7:15 AM	to 8:15 AM	0	88	753	19	0	54	278	40	0	74	109	62	0	35	127	88	1727
7:30 AM	to 8:30 AM	0	95	800	35	0	66	299	40	0	87	146	72	0	36	156	89	1921
7:45 AM	to 8:45 AM	0	107	787	42	0	75	303	34	0	93	173	76	0	33	171	82	1976
8:00 AM	to 9:00 AM	0	118	765	54	0	75	326	36	0	89	173	68	0	27	147	71	1949
PEAK HOUR SUMMARY																		
7:45 AM	to 8:45 AM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	107	787	42	0	75	303	34	0	93	173	76	0	33	171	82	1976
PHF BY MOVEMENT		0.00	0.74	0.84	0.66	0.00	0.89	0.88	0.77	0.00	0.75	0.94	0.68	0.00	0.63	0.72	0.73	OVERALL
PHF BY APPROACH		0.86				0.90				0.81				0.72				0.88

TEL: (510) 232 - 1271 FAX: (510) 232 - 1272

B.A.Y.M.E.T.R.I.C.S.

INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	JACK LONDON SQUARE STUDY (II)	SURVEY DATE:	2/14/2013	DAY:	THURSDAY
N-S APPROACH:	CONSTITUTION WAY	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W APPROACH:	ATLANTIC AVENUE	JURISDICTION:	ALAMEDA	FILE:	3302018-17PM



TIME	PERIOD	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
From	To	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	U-TURN	LEFT	THRU	RIGHT	
SURVEY DATA																		
4:00 PM	to 4:15 PM	14	98	4		13	176	25		20	20	15		10	29	22		446
4:15 PM	to 4:30 PM	33	214	13		34	389	46		47	62	31		22	46	50		987
4:30 PM	to 4:45 PM	49	339	15		60	604	68		69	98	57		30	63	73		1525
4:45 PM	to 5:00 PM	60	445	20		73	869	85		87	126	75		41	86	97		2064
5:00 PM	to 5:15 PM	77	571	28		100	1133	111		104	160	101		53	122	129		2689
5:15 PM	to 5:30 PM	90	707	36		135	1405	142		132	194	116		62	145	153		3317
5:30 PM	to 5:45 PM	118	826	49		168	1654	169		169	229	142		79	179	178		3960
5:45 PM	to 6:00 PM	144	955	58		198	1961	200		188	267	174		91	220	192		4648

TOTAL BY PERIOD																		
4:00 PM	to 4:15 PM	0	14	98	4	0	13	176	25	0	20	20	15	0	10	29	22	446
4:15 PM	to 4:30 PM	0	19	116	9	0	21	213	21	0	27	42	16	0	12	17	28	541
4:30 PM	to 4:45 PM	0	16	125	2	0	26	215	22	0	22	36	26	0	8	17	23	538
4:45 PM	to 5:00 PM	0	11	106	5	0	13	265	17	0	18	28	18	0	11	23	24	539
5:00 PM	to 5:15 PM	0	17	126	8	0	27	264	26	0	17	34	26	0	12	36	32	625
5:15 PM	to 5:30 PM	0	13	136	8	0	35	272	31	0	28	34	15	0	9	23	24	628
5:30 PM	to 5:45 PM	0	28	119	13	0	33	249	27	0	37	35	26	0	17	34	25	643
5:45 PM	to 6:00 PM	0	26	129	9	0	30	307	31	0	19	38	32	0	12	41	14	688

HOURLY TOTALS																		
4:00 PM	to 5:00 PM	0	60	445	20	0	73	869	85	0	87	126	75	0	41	86	97	2064
4:15 PM	to 5:15 PM	0	63	473	24	0	87	957	86	0	84	140	86	0	43	93	107	2243
4:30 PM	to 5:30 PM	0	57	493	23	0	101	1016	96	0	85	132	85	0	40	99	103	2330
4:45 PM	to 5:45 PM	0	69	487	34	0	108	1050	101	0	100	131	85	0	49	116	105	2435
5:00 PM	to 6:00 PM	0	84	510	38	0	125	1092	115	0	101	141	99	0	50	134	95	2584

PEAK HOUR SUMMARY																		
5:00 PM	to 6:00 PM	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	TOTAL
VOLUME		0	84	510	38	0	125	1092	115	0	101	141	99	0	50	134	95	2584
PHF BY MOVEMENT		0.00	0.75	0.94	0.73	0.00	0.89	0.89	0.93	0.00	0.68	0.93	0.77	0.00	0.74	0.82	0.74	OVERALL
PHF BY APPROACH		0.96				0.90				0.87				0.87				0.94

TEL: (510) 232 - 1271

FAX: (510) 232 - 1272

Intersection	Existing AM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Market / 3rd	41	10	3	30	54	93	24	73	20	10	200	25
2 Market / 5th	0	53	17	52	167	0	10	533	29	0	0	0
3 Market / 6th	29	46	0	0	120	45	0	0	0	96	270	255
4 Market / 7th	118	146	12	40	76	75	42	268	29	37	581	36
5 Castro / 11th	0	404	27	0	79	59	139	772	0	0	0	0
6 Castro / 12th	37	482	0	0	0	0	0	0	0	0	177	214
7 Broadway / Embarcadero	3	7	0	63	20	13	7	29	4	7	72	78
8 Broadway / 2nd	4	82	8	32	115	15	9	4	4	9	29	34
9 Broadway / 3rd	10	97	9	39	129	65	34	33	21	4	42	37
10 Broadway / 5th	0	125	210	422	247	0	705	134	75	0	0	0
11 Broadway / 6th	19	137	0	0	335	44	0	0	0	365	194	661
12 Broadway / 11th	0	410	78	82	413	0	70	525	104	0	0	0
13 Broadway / 12th	92	365	0	0	393	35	0	0	0	86	296	63
14 Broadway / 14th	0	355	24	0	492	73	3	273	78	1	268	91
15 Franklin / 2nd	0	0	0	12	6	10	0	26	15	12	52	0
16 Franklin / 3rd	0	0	0	6	3	2	0	21	13	8	23	0
17 Webster / Embarcadero	91	25	0	0	22	54	28	0	70	0	0	0
18 Harrison / 7th	0	527	1,177	0	0	0	51	214	0	0	0	0
19 Jackson / 5th	0	170	33	66	69	0	260	366	373	0	0	0
20 Jackson / 6th	232	238	0	0	158	1,262	0	0	0	2	279	50
21 Jackson / 7th	0	265	67	20	255	0	32	442	1,093	0	0	0
22 Madison / 5th	0	0	0	548	98	0	0	416	17	0	0	0
23 Madison / 6th	0	0	0	0	610	210	0	0	0	31	164	0
24 Madison / 7th	0	0	0	121	578	0	0	331	193	0	0	0
25 Oak / Embarcadero	139	226	0	0	201	60	87	0	66	2	0	0
26 Oak / 3rd	58	269	4	4	232	38	31	1	65	0	1	9
27 Oak / 5th	0	228	70	2	98	0	219	555	126	0	0	0
28 Oak / 6th	116	358	0	0	0	0	0	0	0	81	66	567
29 Oak / 7th	0	834	74	0	0	0	84	324	0	0	0	0
30 5th / Embarcadero	7	2	2	267	4	103	21	221	4	4	238	190
31 Webster / Atlantic	75	831	36	40	422	235	275	197	69	23	202	64
32 Constitution / Atlantic	107	787	42	75	303	34	93	173	76	33	171	82

	Existing PM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
33	75	17		41	18	37	52	269	14	6	120	29
0	125	17		103	72	0	9	713	20	0	0	0
35	109	0		0	142	34	0	0	0	21	145	253
110	204	36		53	86	60	94	705	57	27	325	35
0	1,090	35		0	61	33	158	500	0	0	0	0
29	1,412	0		0	0	0	0	0	0	0	216	696
6	34	17		70	49	19	19	66	11	13	39	72
18	147	49		53	202	33	40	31	16	17	26	64
15	181	12		39	176	62	106	118	28	10	102	99
0	269	294		591	254	0	1,007	284	73	0	0	0
64	248	0		0	715	33	0	0	0	205	128	617
0	453	68		99	697	0	119	486	182	0	0	0
123	454	0		0	594	83	0	0	0	152	511	94
2	476	23		0	778	100	6	319	100	3	379	114
0	0	0		10	24	21	0	87	39	18	83	0
0	0	0		14	21	86	0	189	12	19	188	0
72	40	0		0	27	27	32	0	115	0	0	0
0	502	868		0	0	0	86	394	0	0	0	0
0	416	28		106	82	0	232	484	287	0	0	0
309	368	0		0	176	425	0	0	0	9	322	44
0	234	108		30	281	0	32	839	375	0	0	0
0	0	0		747	71	0	0	539	26	0	0	0
0	0	0		0	854	185	0	0	0	15	173	0
0	0	0		242	668	0	0	777	254	0	0	0
77	239	0		0	226	41	68	0	96	5	0	1
49	263	1		1	175	39	79	1	77	1	1	2
0	395	73		4	88	0	207	854	118	0	0	0
134	481	0		0	0	0	0	0	0	64	80	478
0	876	139		0	0	0	118	758	0	0	0	0
9	1	3		340	2	46	44	312	5	1	195	309
31	487	45		87	747	161	179	160	44	57	200	39
84	510	38		125	1,092	115	101	141	99	50	134	95

Intersection	Existing plus Residential Project AM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Market / 3rd	45	32	7	32	77	93	24	74	25	15	201	56
2 Market / 5th	0	102	21	52	187	0	10	549	34	0	0	0
3 Market / 6th	34	90	0	0	135	45	0	0	0	101	270	260
4 Market / 7th	158	151	17	40	81	75	42	268	34	42	581	36
5 Castro / 11th	0	412	27	0	79	59	139	772	0	0	0	0
6 Castro / 12th	37	490	0	0	0	0	0	0	0	0	177	214
7 Broadway / Embarcadero	13	54	0	73	69	13	8	70	51	7	125	99
8 Broadway / 2nd	4	150	8	32	175	15	9	4	4	9	29	34
9 Broadway / 3rd	22	153	9	40	189	65	34	38	21	4	45	46
10 Broadway / 5th	0	149	250	422	308	0	705	136	75	0	0	0
11 Broadway / 6th	24	156	0	0	355	44	0	0	0	406	198	661
12 Broadway / 11th	0	424	83	82	428	0	70	525	109	0	0	0
13 Broadway / 12th	97	374	0	0	403	35	0	0	0	91	296	63
14 Broadway / 14th	0	360	29	0	497	73	3	273	83	1	268	91
15 Franklin / 2nd	0	0	0	12	13	10	0	26	15	12	52	0
16 Franklin / 3rd	0	0	0	6	3	2	0	28	13	15	35	0
17 Webster / Embarcadero	168	70	0	0	64	100	62	0	124	0	0	0
18 Harrison / 7th	0	533	1,197	0	0	0	51	214	0	0	0	0
19 Jackson / 5th	0	217	33	66	89	0	260	366	418	0	0	0
20 Jackson / 6th	279	238	0	0	178	1,262	0	0	0	2	279	50
21 Jackson / 7th	0	265	67	20	255	0	32	442	1,113	0	0	0
22 Madison / 5th	0	0	0	548	127	0	0	416	17	0	0	0
23 Madison / 6th	0	0	0	0	639	210	0	0	0	31	164	0
24 Madison / 7th	0	0	0	121	607	0	0	331	193	0	0	0
25 Oak / Embarcadero	165	227	0	0	201	127	192	0	75	2	0	0
26 Oak / 3rd	58	381	4	4	289	52	57	1	65	0	1	9
27 Oak / 5th	0	263	173	2	168	0	219	555	126	0	0	0
28 Oak / 6th	116	393	0	0	0	0	0	0	0	151	66	567
29 Oak / 7th	0	850	93	0	0	0	84	324	0	0	0	0
30 5th / Embarcadero	7	2	2	267	4	103	21	231	4	4	264	190
31 Webster / Atlantic	75	836	36	40	442	235	275	197	69	23	202	64
32 Constitution / Atlantic	107	808	42	75	307	34	93	173	76	33	171	82

Intersection	Existing plus Residential Project PM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
41	116	25		46	59	37	52	273	22	14	125	91
0	220	25		103	109	0	9	730	29	0	0	0
44	195	0		0	170	34	0	0	0	30	145	265
189	213	45		53	95	60	94	705	66	36	325	35
0	1,114	35		0	61	33	158	500	0	0	0	0
29	1,436	0		0	0	0	0	0	0	0	216	696
30	146	17		93	100	20	22	163	60	13	124	105
18	295	49		53	278	33	40	31	16	17	26	64
45	299	12		43	252	62	106	135	28	10	120	116
0	318	382		591	334	0	1,007	296	73	0	0	0
76	285	0		0	752	34	0	0	0	248	139	617
0	482	77		99	726	0	119	486	191	0	0	0
132	474	0		0	613	83	0	0	0	161	511	94
2	486	32		0	788	100	6	319	109	3	379	114
0	0	0		10	32	21	0	87	39	18	83	0
0	0	0		14	21	86	0	210	12	27	223	0
192	111	0		0	125	76	112	0	242	0	0	0
0	510	908		0	0	0	86	394	0	0	0	0
0	505	28		106	122	0	232	484	380	0	0	0
398	368	0		0	216	425	0	0	0	9	322	44
0	234	108		30	281	0	32	839	415	0	0	0
0	0	0		747	132	0	0	539	26	0	0	0
0	0	0		0	915	185	0	0	0	15	173	0
0	0	0		242	729	0	0	777	254	0	0	0
132	241	0		0	228	198	235	0	113	5	0	1
49	466	1		1	314	53	141	1	77	1	1	2
0	464	269		4	241	0	207	854	118	0	0	0
134	550	0		0	0	0	0	0	0	217	80	478
0	908	176		0	0	0	118	758	0	0	0	0
9	1	3		340	2	46	44	332	5	1	252	309
31	493	45		87	787	161	179	160	44	57	200	39
84	553	38		125	1,101	115	101	141	99	50	134	95

Intersection	Existing plus Commercial Project AM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Market / 3rd	43	21	5	31	90	93	24	74	27	17	201	41
2 Market / 5th	0	78	19	52	197	0	10	559	36	0	0	0
3 Market / 6th	31	69	0	0	142	45	0	0	0	103	270	258
4 Market / 7th	139	148	14	40	83	75	42	268	36	44	581	36
5 Castro / 11th	0	410	27	0	79	59	139	772	0	0	0	0
6 Castro / 12th	37	488	0	0	0	0	0	0	0	0	177	214
7 Broadway / Embarcadero	10	39	0	78	98	13	7	93	79	7	96	87
8 Broadway / 2nd	4	123	8	32	209	15	9	4	4	9	29	34
9 Broadway / 3rd	18	130	9	40	223	65	34	38	21	4	45	41
10 Broadway / 5th	0	138	234	422	342	0	705	136	75	0	0	0
11 Broadway / 6th	22	147	0	0	365	44	0	0	0	430	198	661
12 Broadway / 11th	0	418	80	82	436	0	70	525	112	0	0	0
13 Broadway / 12th	94	370	0	0	408	35	0	0	0	94	296	63
14 Broadway / 14th	0	358	26	0	500	73	3	273	86	1	268	91
15 Franklin / 2nd	0	0	0	12	18	10	0	26	15	12	52	0
16 Franklin / 3rd	0	0	0	6	3	2	0	27	13	20	30	0
17 Webster / Embarcadero	130	45	0	0	87	127	51	0	151	0	0	0
18 Harrison / 7th	0	536	1,207	0	0	0	51	214	0	0	0	0
19 Jackson / 5th	0	194	33	66	99	0	260	366	441	0	0	0
20 Jackson / 6th	256	238	0	0	188	1,262	0	0	0	2	279	50
21 Jackson / 7th	0	265	67	20	255	0	32	442	1,123	0	0	0
22 Madison / 5th	0	0	0	548	142	0	0	416	17	0	0	0
23 Madison / 6th	0	0	0	0	654	210	0	0	0	31	164	0
24 Madison / 7th	0	0	0	121	622	0	0	331	193	0	0	0
25 Oak / Embarcadero	179	227	0	0	201	164	134	0	71	2	0	0
26 Oak / 3rd	58	322	4	4	314	60	49	1	65	0	1	9
27 Oak / 5th	0	247	122	2	202	0	219	555	126	0	0	0
28 Oak / 6th	116	377	0	0	0	0	0	0	0	185	66	567
29 Oak / 7th	0	843	84	0	0	0	84	324	0	0	0	0
30 5th / Embarcadero	7	2	2	267	4	103	21	226	4	4	279	190
31 Webster / Atlantic	75	840	36	40	432	235	275	197	69	23	202	64
32 Constitution / Atlantic	107	817	42	75	306	34	93	173	76	33	171	82

Intersection	Existing plus Commercial Project PM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
44	132	28		45	57	37	52	273	22	14	124	105
0	246	28		103	107	0	9	738	29	0	0	0
47	218	0		0	168	34	0	0	0	30	145	274
215	216	48		53	95	60	94	705	66	36	325	35
0	1,128	35		0	61	33	158	500	0	0	0	0
29	1,450	0		0	0	0	0	0	0	0	216	696
49	238	17		88	126	20	22	139	84	13	134	109
18	391	49		53	297	33	40	31	16	17	26	64
69	371	12		43	271	62	106	133	28	10	118	117
0	340	430		591	353	0	1,007	295	73	0	0	0
85	298	0		0	750	34	0	0	0	269	138	617
0	491	80		99	724	0	119	486	191	0	0	0
135	480	0		0	612	83	0	0	0	161	511	94
2	489	35		0	788	100	6	319	109	3	379	114
0	0	0		10	35	21	0	87	39	18	83	0
0	0	0		14	21	86	0	208	12	30	222	0
209	120	0		0	101	99	179	0	217	0	0	0
0	512	903		0	0	0	86	394	0	0	0	0
0	526	28		106	117	0	232	484	368	0	0	0
419	368	0		0	211	425	0	0	0	9	322	44
0	234	108		30	281	0	32	839	410	0	0	0
0	0	0		747	124	0	0	539	26	0	0	0
0	0	0		0	907	185	0	0	0	15	173	0
0	0	0		242	721	0	0	777	254	0	0	0
122	241	0		0	228	159	256	0	120	5	0	1
49	484	1		1	283	60	193	1	77	1	1	2
0	487	316		4	218	0	207	854	118	0	0	0
134	573	0		0	0	0	0	0	0	194	80	478
0	919	189		0	0	0	118	758	0	0	0	0
9	1	3		340	2	46	44	338	5	1	242	309
31	495	45		87	794	161	179	160	44	57	200	39
84	547	38		125	1,109	115	101	141	99	50	134	95

Intersection	Cumulative AM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Market / 3rd	47	11	3	31	56	96	24	73	20	13	267	33
2 Market / 5th	0	61	20	63	201	0	4	187	10	0	0	0
3 Market / 6th	35	55	0	0	166	62	0	0	0	92	259	245
4 Market / 7th	137	170	14	50	95	94	53	339	37	48	749	46
5 Castro / 11th	0	471	31	0	92	69	159	883	0	0	0	0
6 Castro / 12th	43	559	0	0	0	0	0	0	0	0	239	289
7 Broadway / Embarcadero	3	7	0	320	102	66	7	30	4	8	85	92
8 Broadway / 2nd	16	337	33	103	369	48	6	2	2	7	22	26
9 Broadway / 3rd	34	326	30	101	333	168	34	33	21	5	51	45
10 Broadway / 5th	0	305	513	548	320	0	931	177	99	0	0	0
11 Broadway / 6th	64	463	0	0	354	46	0	0	0	294	156	533
12 Broadway / 11th	0	410	78	105	529	0	84	632	125	0	0	0
13 Broadway / 12th	93	367	0	0	471	42	0	0	0	145	500	106
14 Broadway / 14th	0	362	24	0	642	95	3	278	79	1	327	111
15 Franklin / 2nd	0	0	0	14	7	12	0	26	15	5	21	0
16 Franklin / 3rd	0	0	0	7	3	2	0	21	13	8	23	0
17 Webster / Embarcadero	118	32	0	0	12	28	41	0	103	0	0	0
18 Harrison / 7th	0	607	1,356	0	0	0	165	691	0	0	0	0
19 Jackson / 5th	0	212	41	66	69	0	311	438	446	0	0	0
20 Jackson / 6th	274	281	0	0	176	1,408	0	0	0	2	311	56
21 Jackson / 7th	0	354	90	28	356	0	38	529	1,308	0	0	0
22 Madison / 5th	0	0	0	589	105	0	0	547	22	0	0	0
23 Madison / 6th	0	0	0	0	709	244	0	0	0	34	180	0
24 Madison / 7th	0	0	0	142	678	0	0	435	254	0	0	0
25 Oak / Embarcadero	356	578	0	0	325	97	92	0	70	2	0	0
26 Oak / 3rd	153	709	11	9	514	84	45	1	94	0	1	9
27 Oak / 5th	0	589	181	3	155	0	269	682	155	0	0	0
28 Oak / 6th	150	463	0	0	0	0	0	0	0	75	61	527
29 Oak / 7th	0	932	83	0	0	0	108	416	0	0	0	0
30 5th / Embarcadero	75	45	56	390	16	137	70	421	19	20	623	436
31 Webster / Atlantic	77	857	37	58	617	344	269	193	68	38	334	106
32 Constitution / Atlantic	119	876	47	125	507	57	152	283	124	65	338	162

Intersection	Cumulative PM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
42	97	22		45	20	40	53	273	14	8	161	39
0	176	24		105	73	0	6	471	13	0	0	0
50	156	0		0	146	35	0	0	0	23	156	272
137	254	45		66	107	74	132	991	80	35	424	46
0	1,360	44		0	76	41	194	613	0	0	0	0
36	1,745	0		0	0	0	0	0	0	0	249	802
6	34	17		310	217	84	24	82	14	12	35	64
59	484	161		135	515	84	26	20	10	13	20	49
23	274	18		102	459	162	106	118	28	10	102	99
0	408	446		879	378	0	1,162	328	84	0	0	0
91	352	0		0	867	40	0	0	0	263	164	791
0	453	68		127	895	0	199	813	305	0	0	0
124	458	0		0	783	109	0	0	0	206	692	127
2	556	27		0	988	127	6	328	103	5	582	175
0	0	0		9	21	18	0	87	39	18	83	0
0	0	0		12	18	74	0	189	12	19	188	0
97	54	0		0	14	14	23	0	83	0	0	0
0	678	1,172		0	0	0	334	1,529	0	0	0	0
0	581	39		106	82	0	298	622	369	0	0	0
364	434	0		0	213	514	0	0	0	11	389	53
0	313	144		36	338	0	41	1,079	482	0	0	0
0	0	0		931	89	0	0	725	35	0	0	0
0	0	0		0	1,047	227	0	0	0	18	210	0
0	0	0		309	852	0	0	1,045	342	0	0	0
218	677	0		0	734	133	42	0	59	5	0	1
136	732	3		5	847	189	79	1	77	1	1	2
0	825	153		6	131	0	246	1,016	140	0	0	0
163	586	0		0	0	0	0	0	0	68	85	506
0	1,017	161		0	0	0	161	1,035	0	0	0	0
39	19	27		750	40	97	74	859	57	56	687	623
33	526	49		89	768	166	242	216	59	166	581	113
87	529	39		130	1,133	119	321	448	315	89	240	170

Intersection	Cumulative plus Residential Project AM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Market / 3rd	51	33	7	33	79	96	24	74	25	18	268	64
2 Market / 5th	0	110	24	63	221	0	4	203	15	0	0	0
3 Market / 6th	40	99	0	0	181	62	0	0	0	97	259	250
4 Market / 7th	177	175	19	50	100	94	53	339	42	53	749	46
5 Castro / 11th	0	479	31	0	92	69	159	883	0	0	0	0
6 Castro / 12th	43	567	0	0	0	0	0	0	0	0	239	289
7 Broadway / Embarcadero	13	54	0	330	151	66	8	71	51	8	138	113
8 Broadway / 2nd	16	405	33	103	429	48	6	2	2	7	22	26
9 Broadway / 3rd	46	382	30	102	393	168	34	38	21	5	54	54
10 Broadway / 5th	0	329	553	548	381	0	931	179	99	0	0	0
11 Broadway / 6th	69	482	0	0	374	46	0	0	0	335	160	533
12 Broadway / 11th	0	424	83	105	544	0	84	632	130	0	0	0
13 Broadway / 12th	98	376	0	0	481	42	0	0	0	150	500	106
14 Broadway / 14th	0	367	29	0	647	95	3	278	84	1	327	111
15 Franklin / 2nd	0	0	0	14	14	12	0	26	15	5	21	0
16 Franklin / 3rd	0	0	0	7	3	2	0	28	13	15	35	0
17 Webster / Embarcadero	195	77	0	0	54	74	75	0	157	0	0	0
18 Harrison / 7th	0	613	1,376	0	0	0	165	691	0	0	0	0
19 Jackson / 5th	0	259	41	66	89	0	311	438	491	0	0	0
20 Jackson / 6th	321	281	0	0	196	1,408	0	0	0	2	311	56
21 Jackson / 7th	0	354	90	28	356	0	38	529	1,328	0	0	0
22 Madison / 5th	0	0	0	589	134	0	0	547	22	0	0	0
23 Madison / 6th	0	0	0	0	738	244	0	0	0	34	180	0
24 Madison / 7th	0	0	0	142	707	0	0	435	254	0	0	0
25 Oak / Embarcadero	382	579	0	0	325	164	197	0	79	2	0	0
26 Oak / 3rd	153	821	11	9	571	98	71	1	94	0	1	9
27 Oak / 5th	0	624	284	3	225	0	269	682	155	0	0	0
28 Oak / 6th	150	498	0	0	0	0	0	0	0	145	61	527
29 Oak / 7th	0	948	102	0	0	0	108	416	0	0	0	0
30 5th / Embarcadero	75	45	56	390	16	137	70	431	19	20	649	436
31 Webster / Atlantic	77	862	37	58	637	344	269	193	68	38	334	106
32 Constitution / Atlantic	119	897	47	125	511	57	152	283	124	65	338	162

Cumulative plus Residential Project PM											
Northbound			Southbound			Eastbound			Westbound		
L	T	R	L	T	R	L	T	R	L	T	R
50	138	30	50	61	40	53	277	22	16	166	101
0	271	32	105	110	0	6	488	22	0	0	0
59	242	0	0	174	35	0	0	0	32	156	284
216	263	54	66	116	74	132	991	89	44	424	46
0	1,384	44	0	76	41	194	613	0	0	0	0
36	1,769	0	0	0	0	0	0	0	0	249	802
30	146	17	333	268	85	27	179	63	12	120	97
59	632	161	135	591	84	26	20	10	13	20	49
53	392	18	106	535	162	106	135	28	10	120	116
0	457	534	879	458	0	1,162	340	84	0	0	0
103	389	0	0	904	41	0	0	0	306	175	791
0	482	77	127	924	0	199	813	314	0	0	0
133	478	0	0	802	109	0	0	0	215	692	127
2	566	36	0	998	127	6	328	112	5	582	175
0	0	0	9	29	18	0	87	39	18	83	0
0	0	0	12	18	74	0	210	12	27	223	0
217	125	0	0	112	63	103	0	210	0	0	0
0	686	1,212	0	0	0	334	1,529	0	0	0	0
0	670	39	106	122	0	298	622	462	0	0	0
453	434	0	0	253	514	0	0	0	11	389	53
0	313	144	36	338	0	41	1,079	522	0	0	0
0	0	0	931	150	0	0	725	35	0	0	0
0	0	0	0	1,108	227	0	0	0	18	210	0
0	0	0	309	913	0	0	1,045	342	0	0	0
273	679	0	0	736	290	209	0	76	5	0	1
136	935	3	5	986	203	141	1	77	1	1	2
0	894	349	6	284	0	246	1,016	140	0	0	0
163	655	0	0	0	0	0	0	0	221	85	506
0	1,049	198	0	0	0	161	1,035	0	0	0	0
39	19	27	750	40	97	74	879	57	56	744	623
33	532	49	89	808	166	242	216	59	166	581	113
87	572	39	130	1,142	119	321	448	315	89	240	170

Intersection	Cumulative plus Commercial Project AM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
1 Market / 3rd	49	22	5	32	92	96	24	74	27	20	268	49
2 Market / 5th	0	86	22	63	231	0	4	213	17	0	0	0
3 Market / 6th	37	78	0	0	188	62	0	0	0	99	259	248
4 Market / 7th	158	172	16	50	102	94	53	339	44	55	749	46
5 Castro / 11th	0	477	31	0	92	69	159	883	0	0	0	0
6 Castro / 12th	43	565	0	0	0	0	0	0	0	0	239	289
7 Broadway / Embarcadero	10	39	0	335	180	66	7	94	79	8	109	101
8 Broadway / 2nd	16	378	33	103	463	48	6	2	2	7	22	26
9 Broadway / 3rd	42	359	30	102	427	168	34	38	21	5	54	49
10 Broadway / 5th	0	318	537	548	415	0	931	179	99	0	0	0
11 Broadway / 6th	67	473	0	0	384	46	0	0	0	359	160	533
12 Broadway / 11th	0	418	80	105	552	0	84	632	133	0	0	0
13 Broadway / 12th	95	372	0	0	486	42	0	0	0	153	500	106
14 Broadway / 14th	0	365	26	0	650	95	3	278	87	1	327	111
15 Franklin / 2nd	0	0	0	14	19	12	0	26	15	5	21	0
16 Franklin / 3rd	0	0	0	7	3	2	0	27	13	20	30	0
17 Webster / Embarcadero	157	52	0	0	77	101	64	0	184	0	0	0
18 Harrison / 7th	0	616	1,386	0	0	0	165	691	0	0	0	0
19 Jackson / 5th	0	236	41	66	99	0	311	438	514	0	0	0
20 Jackson / 6th	298	281	0	0	206	1,408	0	0	0	2	311	56
21 Jackson / 7th	0	354	90	28	356	0	38	529	1,338	0	0	0
22 Madison / 5th	0	0	0	589	149	0	0	547	22	0	0	0
23 Madison / 6th	0	0	0	0	753	244	0	0	0	34	180	0
24 Madison / 7th	0	0	0	142	722	0	0	435	254	0	0	0
25 Oak / Embarcadero	396	579	0	0	325	201	139	0	75	2	0	0
26 Oak / 3rd	153	762	11	9	596	106	63	1	94	0	1	9
27 Oak / 5th	0	608	233	3	259	0	269	682	155	0	0	0
28 Oak / 6th	150	482	0	0	0	0	0	0	0	179	61	527
29 Oak / 7th	0	941	93	0	0	0	108	416	0	0	0	0
30 5th / Embarcadero	75	45	56	390	16	137	70	426	19	20	664	436
31 Webster / Atlantic	77	866	37	58	627	344	269	193	68	38	334	106
32 Constitution / Atlantic	119	906	47	125	510	57	152	283	124	65	338	162

	Cumulative plus Commercial Project PM											
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
53	154	33		49	59	40	53	277	22	16	165	115
0	297	35		105	108	0	6	496	22	0	0	0
62	265	0		0	172	35	0	0	0	32	156	293
242	266	57		66	116	74	132	991	89	44	424	46
0	1,398	44		0	76	41	194	613	0	0	0	0
36	1,783	0		0	0	0	0	0	0	0	249	802
49	238	17		328	294	85	27	155	87	12	130	101
59	728	161		135	610	84	26	20	10	13	20	49
77	464	18		106	554	162	106	133	28	10	118	117
0	479	582		879	477	0	1,162	339	84	0	0	0
112	402	0		0	902	41	0	0	0	327	174	791
0	491	80		127	922	0	199	813	314	0	0	0
136	484	0		0	801	109	0	0	0	215	692	127
2	569	39		0	998	127	6	328	112	5	582	175
0	0	0		9	32	18	0	87	39	18	83	0
0	0	0		12	18	74	0	208	12	30	222	0
234	134	0		0	88	86	170	0	185	0	0	0
0	688	1,207		0	0	0	334	1,529	0	0	0	0
0	691	39		106	117	0	298	622	450	0	0	0
474	434	0		0	248	514	0	0	0	11	389	53
0	313	144		36	338	0	41	1,079	517	0	0	0
0	0	0		931	142	0	0	725	35	0	0	0
0	0	0		0	1,100	227	0	0	0	18	210	0
0	0	0		309	905	0	0	1,045	342	0	0	0
263	679	0		0	736	251	230	0	83	5	0	1
136	953	3		5	955	210	193	1	77	1	1	2
0	917	396		6	261	0	246	1,016	140	0	0	0
163	678	0		0	0	0	0	0	0	198	85	506
0	1,060	211		0	0	0	161	1,035	0	0	0	0
39	19	27		750	40	97	74	885	57	56	734	623
33	534	49		89	815	166	242	216	59	166	581	113
87	566	39		130	1,150	119	321	448	315	89	240	170

Level Of Service Computation Report

Existing Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	73	20	10	200	25	41	10	3	30	54	93
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	73	20	10	200	25	41	10	3	30	54	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	225			93			371	376	46	325	374	112
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	225			93			371	376	46	325	374	112
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			91	98	100	95	90	90
cM capacity (veh/h)	1341			1499			457	540	1013	583	542	919
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	60	56	110	125	54	30	36	111				
Volume Left	24	0	10	0	41	30	0	0				
Volume Right	0	20	0	25	3	0	0	93				
cSH	1341	1700	1499	1700	486	583	542	826				
Volume to Capacity	0.02	0.03	0.01	0.07	0.11	0.05	0.07	0.13				
Queue Length 95th (ft)	1	0	1	0	9	4	5	12				
Control Delay (s)	3.2	0.0	0.7	0.0	13.3	11.5	12.1	10.0				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.6		0.3		13.3	10.7						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			31.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	533	29	0	0	0	0	53	17	52	167	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.96		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5042						3410		1770	5085	
Flt Permitted		1.00						1.00		0.71	1.00	
Satd. Flow (perm)		5042						3410		1321	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	533	29	0	0	0	0	53	17	52	167	0
RTOR Reduction (vph)	0	8	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	564	0	0	0	0	0	58	0	52	167	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2890						1091		422	1627	
v/s Ratio Prot								0.02			0.03	
v/s Ratio Perm		0.11								c0.04		
v/c Ratio		0.20						0.05		0.12	0.10	
Uniform Delay, d1		7.7						17.6		18.1	17.9	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						0.1		0.6	0.1	
Delay (s)		7.8						17.7		18.7	18.1	
Level of Service		A						B		B	B	
Approach Delay (s)		7.8			0.0			17.7			18.2	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.17										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		27.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	96	270	255	9	20	46	0	0	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.96
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3493	1583		1770	3539			4877
Flt Permitted					0.99	1.00		0.64	1.00			1.00
Satd. Flow (perm)					3493	1583		1198	3539			4877
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	96	270	255	9	20	46	0	0	120
RTOR Reduction (vph)	0	0	0	0	0	97	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	0	366	158	0	29	46	0	0	134
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2165	981		359	1061			1463
v/s Ratio Prot									0.01			c0.03
v/s Ratio Perm					0.10	0.10		0.02				
v/c Ratio					0.17	0.16		0.08	0.04			0.09
Uniform Delay, d1					8.1	8.0		25.1	24.8			25.2
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.2	0.4		0.4	0.1			0.1
Delay (s)					8.2	8.4		25.5	24.9			25.3
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.3				25.2			25.3
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			13.0		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.14									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			27.8%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013



Movement	SBR
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	45
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	268	29	37	581	36	118	146	12	40	76	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5011		1770	5041		1770	3499		1770	4706	
Flt Permitted	0.33	1.00		0.56	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	609	5011		1049	5041		1770	3499		1770	4706	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	268	29	37	581	36	118	146	12	40	76	75
RTOR Reduction (vph)	0	16	0	0	9	0	0	7	0	0	66	0
Lane Group Flow (vph)	42	281	0	37	608	0	118	151	0	40	85	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	167	1378		288	1386		796	1574		221	588	
v/s Ratio Prot		0.06			c0.12		c0.07	0.04		c0.02	0.02	
v/s Ratio Perm	0.07			0.04								
v/c Ratio	0.25	0.20		0.13	0.44		0.15	0.10		0.18	0.15	
Uniform Delay, d1	22.6	22.3		21.8	23.9		13.0	12.6		31.3	31.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.6	0.3		0.9	1.0		0.4	0.1		1.8	0.5	
Delay (s)	26.2	22.6		22.7	24.9		13.4	12.8		33.1	31.7	
Level of Service	C	C		C	C		B	B		C	C	
Approach Delay (s)		23.0			24.8			13.0			32.0	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			23.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.25									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			38.6%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	139	772	404	27	79	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6030	5038		3288	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6030	5038		3288	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	772	404	27	79	59
RTOR Reduction (vph)	90	53	10	0	0	0
Lane Group Flow (vph)	35	733	421	0	138	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1688	1410		920	
v/s Ratio Prot	0.02	c0.12	c0.08		c0.04	
v/s Ratio Perm						
v/c Ratio	0.09	0.43	0.30		0.15	
Uniform Delay, d1	19.9	22.1	21.2		20.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.8	0.5		0.3	
Delay (s)	20.4	22.9	21.8		20.6	
Level of Service	C	C	C		C	
Approach Delay (s)		22.6	21.8		20.6	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			22.2		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.29			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			33.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑	↑	↑↑↑				
Volume (vph)	0	0	0	0	177	214	37	482	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3216	1441	1433	6033				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3216	1441	1433	6033				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	177	214	37	482	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	81	15	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	208	41	18	479	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1072	480	802	3378				
v/s Ratio Prot					c0.06							
v/s Ratio Perm						0.03	0.01	0.08				
v/c Ratio					0.19	0.08	0.02	0.14				
Uniform Delay, d1					17.8	17.2	7.4	7.9				
Progression Factor					1.00	1.00	0.30	0.45				
Incremental Delay, d2					0.4	0.3	0.1	0.1				
Delay (s)					18.2	17.5	2.3	3.6				
Level of Service					B	B	A	A				
Approach Delay (s)		0.0			18.0			3.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.7		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			22.5%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	29	4	7	72	78	3	7	0	63	20	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	29	4	7	72	78	3	7	0	63	20	13
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	40	157	7	4	73	23						
Volume Left (vph)	7	7	3	0	63	0						
Volume Right (vph)	4	78	0	0	0	13						
Hadj (s)	0.01	-0.26	0.26	0.03	0.47	-0.36						
Departure Headway (s)	4.3	4.0	5.3	5.1	5.4	4.6						
Degree Utilization, x	0.05	0.17	0.01	0.00	0.11	0.03						
Capacity (veh/h)	802	885	647	674	635	749						
Control Delay (s)	7.6	7.8	7.1	6.9	7.9	6.5						
Approach Delay (s)	7.6	7.8	7.1		7.5							
Approach LOS	A	A	A		A							
Intersection Summary												
Delay			7.7									
Level of Service			A									
Intersection Capacity Utilization			26.4%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	4	4	9	29	34	4	82	8	32	115	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	4	4	9	29	34	4	82	8	32	115	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	284	284	65	222	288	45	130			90		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	284	284	65	222	288	45	130			90		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	95	97	100			98		
cM capacity (veh/h)	591	608	986	696	606	1015	1453			1503		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	17	72	45	49	90	72						
Volume Left	9	9	4	0	32	0						
Volume Right	4	34	0	8	0	15						
cSH	657	763	1453	1700	1503	1700						
Volume to Capacity	0.03	0.09	0.00	0.03	0.02	0.04						
Queue Length 95th (ft)	2	8	0	0	2	0						
Control Delay (s)	10.6	10.2	0.7	0.0	2.8	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	10.6	10.2	0.3		1.5							
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			19.2%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	33	21	4	42	37	10	97	9	39	129	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.94			0.99			0.96	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1769			1746			3483			3363	
Flt Permitted		0.89			0.99			0.93			0.91	
Satd. Flow (perm)		1610			1736			3269			3073	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	33	21	4	42	37	10	97	9	39	129	65
RTOR Reduction (vph)	0	14	0	0	25	0	0	4	0	0	31	0
Lane Group Flow (vph)	0	74	0	0	58	0	0	112	0	0	202	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		526			568			1723			1620	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.03			0.03			c0.07	
v/c Ratio		0.14			0.10			0.06			0.12	
Uniform Delay, d1		13.0			12.9			6.4			6.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.4			0.1			0.2	
Delay (s)		13.6			13.2			6.4			6.7	
Level of Service		B			B			A			A	
Approach Delay (s)		13.6			13.2			6.4			6.7	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.9			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.13										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		29.0%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	705	134	75	0	0	0	0	125	210	422	247	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	134	75	0	0	0	0	125	210	422	247	0
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	151	0	0	0
Lane Group Flow (vph)	352	487	21	0	0	0	0	125	59	422	247	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	916	443					990	443	961	521	
v/s Ratio Prot	c0.22	0.15	0.01					0.04	c0.04	0.12	c0.13	
v/s Ratio Perm												
v/c Ratio	0.78	0.53	0.05					0.13	0.13	0.44	0.47	
Uniform Delay, d1	24.9	22.8	19.7					20.2	20.2	22.2	22.4	
Progression Factor	0.87	0.86	0.76					1.00	1.00	1.11	1.12	
Incremental Delay, d2	12.7	2.2	0.2					0.3	0.6	1.3	2.8	
Delay (s)	34.4	21.8	15.2					20.4	20.8	25.9	27.9	
Level of Service	C	C	B					C	C	C	C	
Approach Delay (s)		26.1			0.0			20.7			26.7	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			25.4		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			66.4%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	365	194	661	19	137	0	0	335	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.91	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3070	1441	1770	3539			4997	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3070	1441	1770	3539			4997	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	365	194	661	19	137	0	0	335	44
RTOR Reduction (vph)	0	0	0	0	225	224	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	365	300	106	19	137	0	0	357	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	982	461	212	2029			1998	
v/s Ratio Prot				c0.21	0.10	0.07	c0.01	0.04			c0.07	
v/s Ratio Perm												
v/c Ratio				0.64	0.31	0.23	0.09	0.07			0.18	
Uniform Delay, d1				21.8	19.2	18.7	29.4	7.1			14.5	
Progression Factor				1.00	1.00	1.00	0.61	0.16			1.00	
Incremental Delay, d2				5.6	0.8	1.2	0.7	0.1			0.2	
Delay (s)				27.4	20.0	19.9	18.6	1.2			14.7	
Level of Service				C	C	B	B	A			B	
Approach Delay (s)		0.0			22.2			3.3			14.7	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			18.9									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 12.0
Intersection Capacity Utilization			66.4%									ICU Level of Service C
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	525	104	0	0	0	0	410	78	82	413	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		6234						3454		1770	3539	
Flt Permitted		1.00						1.00		0.34	1.00	
Satd. Flow (perm)		6234						3454		638	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	525	104	0	0	0	0	410	78	82	413	0
RTOR Reduction (vph)	0	53	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	646	0	0	0	0	0	462	0	82	413	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		20.0						20.0		32.0	32.0	
Effective Green, g (s)		20.0						20.0		32.0	32.0	
Actuated g/C Ratio		0.33						0.33		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2078						1151		491	1887	
v/s Ratio Prot		c0.10						c0.13		0.02	c0.12	
v/s Ratio Perm										0.07		
v/c Ratio		0.31						0.40		0.17	0.22	
Uniform Delay, d1		14.9						15.4		7.3	7.4	
Progression Factor		1.00						1.00		0.84	0.75	
Incremental Delay, d2		0.4						1.0		0.7	0.3	
Delay (s)		15.3						16.4		6.8	5.8	
Level of Service		B						B		A	A	
Approach Delay (s)		15.3			0.0			16.4			6.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		38.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	86	296	63	92	365	0	0	393	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4930		1770	3539			5023	
Flt Permitted					0.99		0.41	1.00			1.00	
Satd. Flow (perm)					4930		766	3539			5023	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	86	296	63	92	365	0	0	393	35
RTOR Reduction (vph)	0	0	0	0	38	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	407	0	92	365	0	0	411	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1643		542	1887			1674	
v/s Ratio Prot					c0.08		0.02	c0.10			c0.08	
v/s Ratio Perm							0.07					
v/c Ratio					0.25		0.17	0.19			0.25	
Uniform Delay, d1					14.5		7.0	7.3			14.5	
Progression Factor					1.00		0.61	0.60			1.83	
Incremental Delay, d2					0.4		0.6	0.2			0.3	
Delay (s)					14.9		5.0	4.6			27.0	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			14.9			4.6			27.0	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.3				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			38.8%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	273	78	1	268	91	0	355	24	0	492	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3421			3405			3506			3471	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		3261			3250			3506			3471	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	273	78	1	268	91	0	355	24	0	492	73
RTOR Reduction (vph)	0	43	0	0	50	0	0	8	0	0	20	0
Lane Group Flow (vph)	0	311	0	0	310	0	0	371	0	0	545	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1467			1462			1460			1446	
v/s Ratio Prot								0.11			c0.16	
v/s Ratio Perm		c0.10			0.10							
v/c Ratio		0.21			0.21			0.25			0.38	
Uniform Delay, d1		10.0			10.0			11.4			12.1	
Progression Factor		1.00			1.00			1.90			1.00	
Incremental Delay, d2		0.3			0.3			0.4			0.8	
Delay (s)		10.4			10.4			22.1			12.9	
Level of Service		B			B			C			B	
Approach Delay (s)		10.4			10.4			22.1			12.9	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		13.9			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		34.8%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	12	52	0	0	0	0	12	6	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	12	52	0	0	0	0	12	6	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	52			41			122	110	34	110	117	52
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52			41			122	110	34	110	117	52
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	99	99
cM capacity (veh/h)	1554			1568			834	775	1040	864	767	1016
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	64	15	13								
Volume Left	0	12	12	0								
Volume Right	15	0	0	10								
cSH	1700	1568	843	945								
Volume to Capacity	0.02	0.01	0.02	0.01								
Queue Length 95th (ft)	0	1	1	1								
Control Delay (s)	0.0	1.4	9.3	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.1									
Approach LOS			A									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			20.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	21	13	8	23	0	0	0	0	6	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	21	13	8	23	0	0	0	0	6	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	23			34			70	66	28	66	73	23
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			34			70	66	28	66	73	23
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1592			1578			914	820	1048	923	813	1054
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	34	31	8	4								
Volume Left	0	8	6	0								
Volume Right	13	0	0	2								
cSH	1700	1578	899	935								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	0	1	0								
Control Delay (s)	0.0	1.9	9.0	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.9	9.0									
Approach LOS			A									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			18.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	28	70	91	25	22	54
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	28	70	91	25	22	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		121	56	126	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		121	56	126	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	98		88	97	97	95
cM capacity (veh/h)	1623		783	821	751	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	28	70	116	22	54	
Volume Left	28	0	91	0	0	
Volume Right	0	70	0	0	54	
cSH	1623	1700	791	751	1085	
Volume to Capacity	0.02	0.04	0.15	0.03	0.05	
Queue Length 95th (ft)	1	0	13	2	4	
Control Delay (s)	7.3	0.0	10.3	9.9	8.5	
Lane LOS	A		B	A	A	
Approach Delay (s)	2.1		10.3	8.9		
Approach LOS			B	A		
Intersection Summary						
Average Delay	7.2					
Intersection Capacity Utilization	23.0%			ICU Level of Service		A
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	214	0	0	0	0	0	527	1177	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5037						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5037						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	214	0	0	0	0	0	527	1177	0	0	0
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	473	0	0	0
Lane Group Flow (vph)	0	232	0	0	0	0	0	527	704	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1790						2373	1300			
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.05							c0.25			
v/c Ratio		0.13						0.22	0.54			
Uniform Delay, d1		9.8						7.1	8.6			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.2	1.6			
Delay (s)		9.9						7.4	10.2			
Level of Service		A						A	B			
Approach Delay (s)		9.9			0.0			9.3			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.4						HCM 2000 Level of Service	A			
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		86.8%						ICU Level of Service	E			
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	366	373	0	0	0	0	170	33	66	69	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4739						1822		1770	1863	
Flt Permitted		0.99						1.00		0.63	1.00	
Satd. Flow (perm)		4739						1822		1174	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	260	366	373	0	0	0	0	170	33	66	69	0
RTOR Reduction (vph)	0	239	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	760	0	0	0	0	0	188	0	66	69	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1369						971		626	993	
v/s Ratio Prot								c0.10			0.04	
v/s Ratio Perm		0.16								0.06		
v/c Ratio		0.56						0.19		0.11	0.07	
Uniform Delay, d1		13.6						5.5		5.2	5.1	
Progression Factor		1.00						1.00		0.34	0.35	
Incremental Delay, d2		1.6						0.4		0.3	0.1	
Delay (s)		15.2						5.9		2.1	1.9	
Level of Service		B						A		A	A	
Approach Delay (s)		15.2			0.0			5.9			2.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.32										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		57.5%						ICU Level of Service		B		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	279	50	232	238	0	0	158	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.66	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1223	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	279	50	232	238	0	0	158	1262
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	279	12	232	238	0	0	158	1262
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	706	1076			1076	1583
v/s Ratio Prot				0.00	0.15			0.13			0.08	
v/s Ratio Perm						0.01	0.19					c0.80
v/c Ratio				0.00	0.61	0.03	0.33	0.22			0.15	0.80
Uniform Delay, d1				12.9	15.1	12.9	5.0	4.6			4.4	0.0
Progression Factor				0.72	0.71	0.71	1.13	1.10			1.52	1.00
Incremental Delay, d2				0.0	6.0	0.2	1.1	0.4			0.3	3.8
Delay (s)				9.2	16.7	9.4	6.8	5.5			6.9	3.8
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			15.5			6.1			4.1	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.3		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			57.5%		ICU Level of Service						B	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	442	1093	0	0	0	0	265	67	20	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4413	1362					1812			1856	
Flt Permitted		1.00	1.00					1.00			0.96	
Satd. Flow (perm)		4413	1362					1812			1797	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	442	1093	0	0	0	0	265	67	20	255	0
RTOR Reduction (vph)	0	230	230	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	791	316	0	0	0	0	312	0	0	275	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2059	635					644			638	
v/s Ratio Prot		0.18						c0.17				
v/s Ratio Perm			c0.23								0.15	
v/c Ratio		0.38	0.50					0.48			0.43	
Uniform Delay, d1		7.8	8.3					11.3			11.0	
Progression Factor		1.00	1.00					0.57			1.00	
Incremental Delay, d2		0.5	2.8					2.6			2.1	
Delay (s)		8.3	11.1					9.0			13.2	
Level of Service		A	B					A			B	
Approach Delay (s)		9.3			0.0			9.0			13.2	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			9.7					HCM 2000 Level of Service			A	
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			66.3%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	416	17	0	0	0	0	0	0	548	98	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5055								1610	3270	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5055								1610	3270	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	17	0	0	0	0	0	0	548	98	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	119	119	0
Lane Group Flow (vph)	0	424	0	0	0	0	0	0	0	155	253	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1563	
v/s Ratio Prot		c0.08										
v/s Ratio Perm										c0.10	0.08	
v/c Ratio		0.24								0.20	0.16	
Uniform Delay, d1		10.7								6.9	6.8	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.3								0.6	0.2	
Delay (s)		11.0								7.5	7.0	
Level of Service		B								A	A	
Approach Delay (s)		11.0			0.0			0.0			7.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.7										
HCM 2000 Volume to Capacity ratio		0.22										
Actuated Cycle Length (s)		46.0								8.0		
Intersection Capacity Utilization		27.5%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	31	164	0	0	0	0	0	610	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5045						4890	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5045						4890	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	31	164	0	0	0	0	0	610	210
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	174	0	0	0	0	0	713	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1681						2390	
v/s Ratio Prot					c0.03						c0.15	
v/s Ratio Perm												
v/c Ratio					0.10						0.30	
Uniform Delay, d1					10.4						6.9	
Progression Factor					1.16						0.59	
Incremental Delay, d2					0.1						0.3	
Delay (s)					12.1						4.4	
Level of Service					B						A	
Approach Delay (s)		0.0			12.1			0.0			4.4	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.9		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			27.5%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	331	193	0	0	0	0	0	0	121	578	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6054									5042	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6054									5042	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	331	193	0	0	0	0	0	0	121	578	0
RTOR Reduction (vph)	0	124	0	0	0	0	0	0	0	0	65	0
Lane Group Flow (vph)	0	400	0	0	0	0	0	0	0	0	634	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2152									2352	
v/s Ratio Prot		c0.07										
v/s Ratio Perm											0.13	
v/c Ratio		0.19									0.27	
Uniform Delay, d1		10.0									7.3	
Progression Factor		0.61									1.00	
Incremental Delay, d2		0.2									0.3	
Delay (s)		6.3									7.6	
Level of Service		A									A	
Approach Delay (s)		6.3			0.0			0.0			7.6	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.1				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			28.3%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	87	0	66	2	0	0	139	226	0	0	201	60
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	87	0	66	2	0	0	139	226	0	0	201	60
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	622	735	130	670	765	113	261				226	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	622	735	130	670	765	113	261				226	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	74	100	93	99	100	100	89				100	
cM capacity (veh/h)	341	308	895	291	296	918	1300				1340	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	87	66	139	113	113	134	127					
Volume Left	87	0	139	0	0	0	0					
Volume Right	0	66	0	0	0	0	60					
cSH	341	895	1300	1700	1700	1700	1700					
Volume to Capacity	0.26	0.07	0.11	0.07	0.07	0.08	0.07					
Queue Length 95th (ft)	25	6	9	0	0	0	0					
Control Delay (s)	19.2	9.3	8.1	0.0	0.0	0.0	0.0					
Lane LOS	C	A	A									
Approach Delay (s)	14.9			3.1	0.0							
Approach LOS	B											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	31	65	58	269	232	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.91		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1666		1770	1863	1863	1583
Flt Permitted	0.98		0.61	1.00	1.00	1.00
Satd. Flow (perm)	1666		1144	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	65	58	269	232	38
RTOR Reduction (vph)	38	0	0	0	0	23
Lane Group Flow (vph)	58	0	58	269	232	15
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	703		457	745	745	633
v/s Ratio Prot	c0.04			c0.14	0.12	
v/s Ratio Perm			0.05			0.01
v/c Ratio	0.08		0.13	0.36	0.31	0.02
Uniform Delay, d1	7.8		8.5	9.5	9.3	8.2
Progression Factor	1.00		1.00	1.00	0.74	0.65
Incremental Delay, d2	0.2		0.6	1.4	1.1	0.1
Delay (s)	8.0		9.1	10.8	7.9	5.4
Level of Service	A		A	B	A	A
Approach Delay (s)	8.0			10.5	7.5	
Approach LOS	A			B	A	
Intersection Summary						
HCM 2000 Control Delay			9.0		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.22			
Actuated Cycle Length (s)			45.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			31.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	555	126	0	0	0	0	228	70	2	98	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3415			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3415			1851	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	555	126	0	0	0	0	228	70	2	98	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	47	0	0	0	0
Lane Group Flow (vph)	0	850	0	0	0	0	0	251	0	0	100	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1138			617	
v/s Ratio Prot		c0.17						c0.07				
v/s Ratio Perm											0.05	
v/c Ratio		0.35						0.22			0.16	
Uniform Delay, d1		7.1						10.8			10.6	
Progression Factor		1.00						1.71			1.17	
Incremental Delay, d2		0.4						0.4			0.6	
Delay (s)		7.5						18.9			12.9	
Level of Service		A						B			B	
Approach Delay (s)		7.5			0.0			18.9			12.9	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			10.6					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			33.2%					ICU Level of Service		A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	81	66	567	116	358	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.90	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					3027	1441		3496				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					3027	1441		3496				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	81	66	567	116	358	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	137	137	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	294	146	0	474	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1479	704		1165				
v/s Ratio Prot					0.10			c0.14				
v/s Ratio Perm						c0.10						
v/c Ratio					0.20	0.21		0.41				
Uniform Delay, d1					6.5	6.5		11.6				
Progression Factor					1.00	1.00		1.07				
Incremental Delay, d2					0.3	0.7		1.0				
Delay (s)					6.8	7.2		13.5				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.0			13.5			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.6				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			43.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	324	0	0	0	0	0	834	74	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6343						5023				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6343						5023				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	324	0	0	0	0	0	834	74	0	0	0
RTOR Reduction (vph)	0	39	0	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	369	0	0	0	0	0	885	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2678						2009				
v/s Ratio Prot								c0.18				
v/s Ratio Perm		0.06										
v/c Ratio		0.14						0.44				
Uniform Delay, d1		8.0						9.8				
Progression Factor		0.92						0.68				
Incremental Delay, d2		0.1						0.7				
Delay (s)		7.4						7.4				
Level of Service		A						A				
Approach Delay (s)		7.4			0.0			7.4			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		7.4						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		65.6%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	221	4	4	238	190	7	2	2	267	4	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	221	4	4	238	190	7	2	2	267	4	103
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	246	242	190	11	374							
Volume Left (vph)	21	4	0	7	267							
Volume Right (vph)	4	0	190	2	103							
Hadj (s)	0.04	0.04	-0.67	0.05	0.01							
Departure Headway (s)	5.8	6.1	5.4	6.5	5.6							
Degree Utilization, x	0.40	0.41	0.28	0.02	0.58							
Capacity (veh/h)	580	563	636	456	608							
Control Delay (s)	12.7	12.1	9.3	9.6	16.3							
Approach Delay (s)	12.7	10.8		9.6	16.3							
Approach LOS	B	B		A	C							
Intersection Summary												
Delay			13.2									
Level of Service			B									
Intersection Capacity Utilization			62.0%	ICU Level of Service		B						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	197	69	23	202	64	75	831	36	40	422	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	214	75	25	220	70	82	903	39	43	459	255
RTOR Reduction (vph)	0	0	52	0	33	0	0	2	0	0	0	215
Lane Group Flow (vph)	299	214	23	25	257	0	82	940	0	43	459	40
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Effective Green, g (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Actuated g/C Ratio	0.16	0.30	0.30	0.04	0.18		0.10	0.38		0.06	0.35	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	544	1075	481	64	620		170	1340		108	1224	251
v/s Ratio Prot	c0.09	0.06		0.01	c0.08		c0.05	c0.27		0.02	0.13	0.03
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.20	0.05	0.39	0.41		0.48	0.70		0.40	0.38	0.16
Uniform Delay, d1	28.6	19.0	18.1	34.7	26.7		31.6	19.3		33.3	18.1	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	3.9	0.5		2.2	3.1		2.4	0.9	0.3
Delay (s)	29.7	19.1	18.2	38.6	27.1		33.7	22.3		35.7	19.0	27.1
Level of Service	C	B	B	D	C		C	C		D	B	C
Approach Delay (s)		24.4			28.0			23.2			22.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			23.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			73.7			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			56.3%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	173	76	33	171	82	107	787	42	75	303	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	188	83	36	186	89	116	855	46	82	329	37
RTOR Reduction (vph)	0	50	0	0	62	0	0	0	28	0	0	23
Lane Group Flow (vph)	101	221	0	36	213	0	116	855	18	82	329	14
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Effective Green, g (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Actuated g/C Ratio	0.11	0.24		0.04	0.17		0.09	0.39	0.39	0.08	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	803		77	571		312	1394	623	280	1361	609
v/s Ratio Prot	c0.06	0.07		0.02	c0.06		c0.03	c0.24		0.02	0.09	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.51	0.27		0.47	0.37		0.37	0.61	0.03	0.29	0.24	0.02
Uniform Delay, d1	27.6	20.5		30.8	24.3		28.2	16.0	12.3	28.5	13.8	12.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.2		4.4	0.4		0.7	2.0	0.1	0.6	0.4	0.1
Delay (s)	29.8	20.7		35.2	24.7		29.0	18.0	12.3	29.1	14.2	12.7
Level of Service	C	C		D	C		C	B	B	C	B	B
Approach Delay (s)		23.2			25.9			19.0			16.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			66.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			50.9%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	269	14	6	120	29	33	75	17	41	18	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	52	269	14	6	120	29	33	75	17	41	18	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	149			283			498	541	142	440	534	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	149			283			498	541	142	440	534	74
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			100			92	82	98	90	96	96
cM capacity (veh/h)	1430			1276			411	428	880	412	433	972
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	186	148	66	89	125	41	12	43				
Volume Left	52	0	6	0	33	41	0	0				
Volume Right	0	14	0	29	17	0	0	37				
cSH	1430	1700	1276	1700	455	412	433	828				
Volume to Capacity	0.04	0.09	0.00	0.05	0.27	0.10	0.03	0.05				
Queue Length 95th (ft)	3	0	0	0	28	8	2	4				
Control Delay (s)	2.3	0.0	0.7	0.0	15.9	14.7	13.6	9.6				
Lane LOS	A		A		C	B	B	A				
Approach Delay (s)	1.3		0.3		15.9	12.3						
Approach LOS					C	B						
Intersection Summary												
Average Delay			5.1									
Intersection Capacity Utilization			37.3%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	713	20	0	0	0	0	125	17	103	72	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		1.00						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5062						3476		1770	5085	
Flt Permitted		1.00						1.00		0.66	1.00	
Satd. Flow (perm)		5062						3476		1233	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	713	20	0	0	0	0	125	17	103	72	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	738	0	0	0	0	0	130	0	103	72	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2902						1112		394	1627	
v/s Ratio Prot								0.04			0.01	
v/s Ratio Perm		0.15								0.08		
v/c Ratio		0.25						0.12		0.26	0.04	
Uniform Delay, d1		8.0						18.0		18.9	17.6	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						0.2		1.6	0.1	
Delay (s)		8.2						18.2		20.5	17.6	
Level of Service		A						B		C	B	
Approach Delay (s)		8.2			0.0			18.2			19.3	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.26										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		34.1%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	21	145	253	12	23	109	0	0	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.97
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3517	1583		1770	3539			4938
Flt Permitted					0.99	1.00		0.64	1.00			1.00
Satd. Flow (perm)					3517	1583		1185	3539			4938
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	21	145	253	12	23	109	0	0	142
RTOR Reduction (vph)	0	0	0	0	0	96	0	0	0	0	0	24
Lane Group Flow (vph)	0	0	0	0	166	157	0	35	109	0	0	152
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2180	981		355	1061			1481
v/s Ratio Prot									0.03			c0.03
v/s Ratio Perm					0.05	c0.10		0.03				
v/c Ratio					0.08	0.16		0.10	0.10			0.10
Uniform Delay, d1					7.6	8.0		25.2	25.3			25.3
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.1	0.3		0.6	0.2			0.1
Delay (s)					7.6	8.4		25.8	25.5			25.4
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.1				25.6			25.4
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			15.6		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.14									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			34.1%		ICU Level of Service				A			
Analysis Period (min)			15									

c Critical Lane Group

3: Market Street & 6th Street



Lane Configurations

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	705	57	27	325	35	110	204	36	53	86	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5028		1770	5011		1770	3460		1770	4772	
Flt Permitted	0.51	1.00		0.24	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	958	5028		456	5011		1770	3460		1770	4772	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	705	57	27	325	35	110	204	36	53	86	60
RTOR Reduction (vph)	0	12	0	0	16	0	0	18	0	0	53	0
Lane Group Flow (vph)	94	750	0	27	344	0	110	222	0	53	94	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	263	1382		125	1378		796	1557		221	596	
v/s Ratio Prot		c0.15			0.07		0.06	c0.06		c0.03	0.02	
v/s Ratio Perm	0.10			0.06								
v/c Ratio	0.36	0.54		0.22	0.25		0.14	0.14		0.24	0.16	
Uniform Delay, d1	23.3	24.7		22.4	22.6		12.9	12.9		31.6	31.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	1.5		3.9	0.4		0.4	0.2		2.6	0.6	
Delay (s)	27.1	26.3		26.3	23.0		13.3	13.1		34.1	31.8	
Level of Service	C	C		C	C		B	B		C	C	
Approach Delay (s)		26.3			23.2			13.2			32.4	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			23.8			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			41.7%			ICU Level of Service			A			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	158	500	1090	35	61	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6017	5062		3316	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6017	5062		3316	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	500	1090	35	61	33
RTOR Reduction (vph)	91	53	4	0	0	0
Lane Group Flow (vph)	35	479	1121	0	94	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1684	1417		928	
v/s Ratio Prot	0.02	c0.08	c0.22		c0.03	
v/s Ratio Perm						
v/c Ratio	0.09	0.28	0.79		0.10	
Uniform Delay, d1	19.9	21.1	25.0		20.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.4	4.6		0.2	
Delay (s)	20.4	21.5	29.6		20.2	
Level of Service	C	C	C		C	
Approach Delay (s)		21.3	29.6		20.2	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			26.2		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.39			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			42.9%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	216	696	29	1412	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3076	1441	1433	6035				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3076	1441	1433	6035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	216	696	29	1412	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	24	24	11	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	540	324	15	1408	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1025	480	802	3379				
v/s Ratio Prot					0.18							
v/s Ratio Perm						c0.22	0.01	0.23				
v/c Ratio					0.53	0.68	0.02	0.42				
Uniform Delay, d1					20.2	21.5	7.3	9.5				
Progression Factor					1.00	1.00	0.03	0.22				
Incremental Delay, d2					1.9	7.4	0.0	0.3				
Delay (s)					22.2	28.9	0.3	2.4				
Level of Service					C	C	A	A				
Approach Delay (s)		0.0			24.7			2.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		54.8%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	19	66	11	13	39	72	6	34	17	70	49	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	19	66	11	13	39	72	6	34	17	70	49	19
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	96	124	23	34	95	44						
Volume Left (vph)	19	13	6	0	70	0						
Volume Right (vph)	11	72	0	17	0	19						
Hadj (s)	0.00	-0.29	0.16	-0.32	0.40	-0.27						
Departure Headway (s)	4.5	4.2	5.3	4.8	5.5	4.8						
Degree Utilization, x	0.12	0.14	0.03	0.05	0.14	0.06						
Capacity (veh/h)	759	808	641	702	626	714						
Control Delay (s)	8.1	7.9	7.3	6.9	8.2	6.9						
Approach Delay (s)	8.1	7.9	7.0		7.8							
Approach LOS	A	A	A		A							
Intersection Summary												
Delay			7.8									
Level of Service			A									
Intersection Capacity Utilization			26.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	31	16	17	26	64	18	147	49	53	202	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	40	31	16	17	26	64	18	147	49	53	202	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	511	556	118	446	548	98	235			196		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	511	556	118	446	548	98	235			196		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	93	98	96	94	93	99			96		
cM capacity (veh/h)	380	415	912	441	419	939	1329			1374		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	87	107	92	122	154	134						
Volume Left	40	17	18	0	53	0						
Volume Right	16	64	0	49	0	33						
cSH	441	634	1329	1700	1374	1700						
Volume to Capacity	0.20	0.17	0.01	0.07	0.04	0.08						
Queue Length 95th (ft)	18	15	1	0	3	0						
Control Delay (s)	15.2	11.8	1.6	0.0	2.9	0.0						
Lane LOS	C	B	A		A							
Approach Delay (s)	15.2	11.8	0.7		1.5							
Approach LOS	C	B										
Intersection Summary												
Average Delay			4.6									
Intersection Capacity Utilization			35.5%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	118	28	10	102	99	15	181	12	39	176	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.98			0.94			0.99			0.97	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1797			1741			3496			3396	
Flt Permitted		0.81			0.98			0.93			0.90	
Satd. Flow (perm)		1488			1716			3271			3085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	118	28	10	102	99	15	181	12	39	176	62
RTOR Reduction (vph)	0	8	0	0	58	0	0	6	0	0	29	0
Lane Group Flow (vph)	0	244	0	0	153	0	0	202	0	0	248	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		486			561			1724			1626	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.09			0.06			c0.08	
v/c Ratio		0.50			0.27			0.12			0.15	
Uniform Delay, d1		14.9			13.7			6.6			6.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.7			1.2			0.1			0.2	
Delay (s)		18.6			14.9			6.7			6.9	
Level of Service		B			B			A			A	
Approach Delay (s)		18.6			14.9			6.7			6.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		52.9%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1007	284	73	0	0	0	0	269	294	591	254	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3285	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3285	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1007	284	73	0	0	0	0	269	294	591	254	0
RTOR Reduction (vph)	0	0	53	0	0	0	0	0	128	0	0	0
Lane Group Flow (vph)	503	788	20	0	0	0	0	269	166	591	254	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	919	443					990	443	961	521	
v/s Ratio Prot	c0.31	0.24	0.01					0.08	c0.10	c0.17	0.14	
v/s Ratio Perm												
v/c Ratio	1.12	1.07dl	0.05					0.27	0.37	0.61	0.49	
Uniform Delay, d1	27.0	25.6	19.7					21.0	21.7	23.5	22.5	
Progression Factor	0.90	0.90	0.75					1.00	1.00	0.74	0.74	
Incremental Delay, d2	78.5	10.1	0.2					0.7	2.4	2.8	3.1	
Delay (s)	102.8	33.1	14.9					21.7	24.1	20.2	19.8	
Level of Service	F	C	B					C	C	C	B	
Approach Delay (s)		57.8			0.0			23.0			20.1	
Approach LOS		E			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			39.2	HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			75.0	Sum of lost time (s)				12.0				
Intersection Capacity Utilization			85.5%	ICU Level of Service				E				
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	205	128	617	64	248	0	0	715	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.89	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3031	1441	1770	3539			5052	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3031	1441	1770	3539			5052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	205	128	617	64	248	0	0	715	33
RTOR Reduction (vph)	0	0	0	0	210	209	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	205	227	99	64	248	0	0	741	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	969	461	212	2029			2020	
v/s Ratio Prot				c0.12	0.07	0.07	c0.04	0.07			c0.15	
v/s Ratio Perm												
v/c Ratio				0.36	0.23	0.21	0.30	0.12			0.37	
Uniform Delay, d1				19.6	18.7	18.6	30.1	7.3			15.8	
Progression Factor				1.00	1.00	1.00	0.85	0.11			1.00	
Incremental Delay, d2				1.8	0.6	1.1	1.9	0.1			0.5	
Delay (s)				21.4	19.3	19.7	27.6	0.9			16.3	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			19.9			6.4			16.3	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM 2000 Control Delay			16.5									HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio			0.36									B
Actuated Cycle Length (s)			75.0									Sum of lost time (s)
Intersection Capacity Utilization			85.5%									12.0
Analysis Period (min)			15									ICU Level of Service
c Critical Lane Group												E

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	486	182	0	0	0	0	453	68	99	697	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.97						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		6139						3470		1770	3539	
Flt Permitted		0.99						1.00		0.32	1.00	
Satd. Flow (perm)		6139						3470		599	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	486	182	0	0	0	0	453	68	99	697	0
RTOR Reduction (vph)	0	90	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	697	0	0	0	0	0	501	0	99	697	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		20.0						20.0		32.0	32.0	
Effective Green, g (s)		20.0						20.0		32.0	32.0	
Actuated g/C Ratio		0.33						0.33		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2046						1156		475	1887	
v/s Ratio Prot		c0.11						c0.14		0.03	c0.20	
v/s Ratio Perm										0.08		
v/c Ratio		0.34						0.43		0.21	0.37	
Uniform Delay, d1		15.0						15.6		7.4	8.1	
Progression Factor		1.00						1.00		0.70	0.64	
Incremental Delay, d2		0.5						1.2		0.9	0.5	
Delay (s)		15.5						16.8		6.2	5.7	
Level of Service		B						B		A	A	
Approach Delay (s)		15.5			0.0			16.8			5.8	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.1						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.40										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		45.2%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	152	511	94	123	454	0	0	594	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4941		1770	3539			4992	
Flt Permitted					0.99		0.28	1.00			1.00	
Satd. Flow (perm)					4941		523	3539			4992	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	152	511	94	123	454	0	0	594	83
RTOR Reduction (vph)	0	0	0	0	31	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	0	0	0	726	0	123	454	0	0	647	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1647		445	1887			1664	
v/s Ratio Prot					c0.15		c0.04	0.13			c0.13	
v/s Ratio Perm							0.11					
v/c Ratio					0.44		0.28	0.24			0.39	
Uniform Delay, d1					15.6		7.4	7.5			15.3	
Progression Factor					1.00		1.12	0.66			1.93	
Incremental Delay, d2					0.9		1.4	0.3			0.6	
Delay (s)					16.5		9.7	5.2			30.2	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			16.5			6.2			30.2	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			45.2%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	319	100	3	379	114	2	476	23	0	778	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3412			3416			3514			3479	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		3241			3258			3349			3479	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	319	100	3	379	114	2	476	23	0	778	100
RTOR Reduction (vph)	0	48	0	0	47	0	0	6	0	0	16	0
Lane Group Flow (vph)	0	377	0	0	449	0	0	495	0	0	862	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1458			1466			1395			1449	
v/s Ratio Prot											c0.25	
v/s Ratio Perm		0.12			c0.14			0.15				
v/c Ratio		0.26			0.31			0.35			0.59	
Uniform Delay, d1		10.3			10.5			12.0			13.6	
Progression Factor		1.00			1.00			1.74			1.00	
Incremental Delay, d2		0.4			0.5			0.7			1.8	
Delay (s)		10.7			11.1			21.6			15.4	
Level of Service		B			B			C			B	
Approach Delay (s)		10.7			11.1			21.6			15.4	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.9			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		47.8%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	10	24	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	10	24	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			258	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			258	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	96	98
cM capacity (veh/h)	1514			1460			654	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	22	33								
Volume Left	0	18	10	0								
Volume Right	39	0	0	21								
cSH	1700	1460	681	825								
Volume to Capacity	0.07	0.01	0.03	0.04								
Queue Length 95th (ft)	0	1	3	3								
Control Delay (s)	0.0	1.4	10.5	9.5								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	9.9									
Approach LOS			A									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	189	12	19	188	0	0	0	0	14	21	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	189	12	19	188	0	0	0	0	14	21	86
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	188			201			518	421	195	421	427	188
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	188			201			518	421	195	421	427	188
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	97	96	90
cM capacity (veh/h)	1386			1371			404	517	846	537	513	854
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	201	207	24	96								
Volume Left	0	19	14	0								
Volume Right	12	0	0	86								
cSH	1700	1371	526	796								
Volume to Capacity	0.12	0.01	0.05	0.12								
Queue Length 95th (ft)	0	1	4	10								
Control Delay (s)	0.0	0.8	12.2	10.1								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	0.8	10.6									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			35.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	32	115	72	40	27	27
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	115	72	40	27	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		104	64	179	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		104	64	179	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	98		91	95	96	98
cM capacity (veh/h)	1623		816	810	701	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	32	115	112	27	27	
Volume Left	32	0	72	0	0	
Volume Right	0	115	0	0	27	
cSH	1623	1700	814	701	1085	
Volume to Capacity	0.02	0.07	0.14	0.04	0.02	
Queue Length 95th (ft)	2	0	12	3	2	
Control Delay (s)	7.3	0.0	10.1	10.3	8.4	
Lane LOS	A		B	B	A	
Approach Delay (s)	1.6		10.1	9.4		
Approach LOS			B	A		
Intersection Summary						
Average Delay			6.0			
Intersection Capacity Utilization			22.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	394	0	0	0	0	0	502	868	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5040						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5040						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	394	0	0	0	0	0	502	868	0	0	0
RTOR Reduction (vph)	0	55	0	0	0	0	0	0	242	0	0	0
Lane Group Flow (vph)	0	425	0	0	0	0	0	502	626	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1792						2373	1300			
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.08							c0.22			
v/c Ratio		0.24						0.21	0.48			
Uniform Delay, d1		10.2						7.1	8.3			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.3						0.2	1.3			
Delay (s)		10.5						7.3	9.5			
Level of Service		B						A	A			
Approach Delay (s)		10.5			0.0			8.7			0.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.2						HCM 2000 Level of Service	A			
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		76.0%						ICU Level of Service	D			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  						 		 		
Volume (vph)	232	484	287	0	0	0	0	416	28	106	82	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.96						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4811						1847		1770	1863	
Flt Permitted		0.99						1.00		0.45	1.00	
Satd. Flow (perm)		4811						1847		829	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	232	484	287	0	0	0	0	416	28	106	82	0
RTOR Reduction (vph)	0	161	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	842	0	0	0	0	0	438	0	106	82	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1389						985		442	993	
v/s Ratio Prot								c0.24			0.04	
v/s Ratio Perm		0.18								0.13		
v/c Ratio		0.61						0.45		0.24	0.08	
Uniform Delay, d1		13.8						6.4		5.6	5.1	
Progression Factor		1.00						1.00		0.42	0.43	
Incremental Delay, d2		2.0						1.5		1.3	0.2	
Delay (s)		15.8						7.9		3.6	2.4	
Level of Service		B						A		A	A	
Approach Delay (s)		15.8			0.0			7.9			3.1	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		73.1%						ICU Level of Service		D		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	9	322	44	309	368	0	0	176	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1204	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	322	44	309	368	0	0	176	425
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	322	11	309	368	0	0	176	425
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	695	1076			1076	1583
v/s Ratio Prot				0.01	c0.17			0.20			0.09	
v/s Ratio Perm						0.01	c0.26					0.27
v/c Ratio				0.02	0.71	0.03	0.44	0.34			0.16	0.27
Uniform Delay, d1				12.9	15.5	12.9	5.4	5.0			4.4	0.0
Progression Factor				0.67	0.68	0.64	0.72	0.75			1.00	1.00
Incremental Delay, d2				0.1	8.8	0.1	1.8	0.8			0.3	0.4
Delay (s)				8.7	19.3	8.4	5.7	4.5			4.7	0.4
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			17.8			5.0			1.7	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.7									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			73.1%									ICU Level of Service D
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	839	375	0	0	0	0	234	108	30	281	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4725	1362					1783			1854	
Flt Permitted		1.00	1.00					1.00			0.95	
Satd. Flow (perm)		4725	1362					1783			1764	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	839	375	0	0	0	0	234	108	30	281	0
RTOR Reduction (vph)	0	28	148	0	0	0	0	37	0	0	0	0
Lane Group Flow (vph)	0	941	129	0	0	0	0	305	0	0	311	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2205	635					633			627	
v/s Ratio Prot		c0.20						0.17				
v/s Ratio Perm			0.09								c0.18	
v/c Ratio		0.43	0.20					0.48			0.50	
Uniform Delay, d1		8.0	7.1					11.3			11.3	
Progression Factor		1.00	1.00					0.88			1.00	
Incremental Delay, d2		0.6	0.7					2.5			2.8	
Delay (s)		8.6	7.8					12.5			14.1	
Level of Service		A	A					B			B	
Approach Delay (s)		8.4			0.0			12.5			14.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			10.1		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			65.0%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	539	26	0	0	0	0	0	0	747	71	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3253	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3253	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	539	26	0	0	0	0	0	0	747	71	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	74	74	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	299	371	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1555	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.19	0.11	
v/c Ratio		0.32								0.39	0.24	
Uniform Delay, d1		11.0								7.7	7.1	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								1.5	0.4	
Delay (s)		11.5								9.2	7.4	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			8.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.5			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		33.5%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	15	173	0	0	0	0	0	854	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5065						4949	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5065						4949	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	15	173	0	0	0	0	0	854	185
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	76	0
Lane Group Flow (vph)	0	0	0	0	172	0	0	0	0	0	963	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1688						2419	
v/s Ratio Prot					c0.03						c0.19	
v/s Ratio Perm												
v/c Ratio					0.10						0.40	
Uniform Delay, d1					10.4						7.3	
Progression Factor					1.01						0.61	
Incremental Delay, d2					0.1						0.5	
Delay (s)					10.6						4.9	
Level of Service					B						A	
Approach Delay (s)		0.0			10.6			0.0			4.9	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.8		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.28									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			33.5%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	777	254	0	0	0	0	0	0	242	668	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0									4.0		
Lane Util. Factor		0.86									0.91		
Frt		0.96									1.00		
Flt Protected		1.00									0.99		
Satd. Flow (prot)		6171									5019		
Flt Permitted		1.00									0.99		
Satd. Flow (perm)		6171									5019		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	777	254	0	0	0	0	0	0	242	668	0	
RTOR Reduction (vph)	0	107	0	0	0	0	0	0	0	0	31	0	
Lane Group Flow (vph)	0	924	0	0	0	0	0	0	0	0	879	0	
Turn Type		NA									Perm	NA	
Protected Phases		4										6	
Permitted Phases												6	
Actuated Green, G (s)		16.0										21.0	
Effective Green, g (s)		16.0										21.0	
Actuated g/C Ratio		0.36										0.47	
Clearance Time (s)		4.0										4.0	
Lane Grp Cap (vph)		2194										2342	
v/s Ratio Prot		c0.15											
v/s Ratio Perm												0.18	
v/c Ratio		0.42										0.38	
Uniform Delay, d1		11.0										7.8	
Progression Factor		0.49										1.00	
Incremental Delay, d2		0.6										0.5	
Delay (s)		6.0										8.2	
Level of Service		A										A	
Approach Delay (s)		6.0			0.0			0.0			8.2		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM 2000 Control Delay			7.0		HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio			0.39										
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0			
Intersection Capacity Utilization			40.0%		ICU Level of Service					A			
Analysis Period (min)			15										
c Critical Lane Group													

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	68	0	96	5	0	1	77	239	0	0	226	41
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	68	0	96	5	0	1	77	239	0	0	226	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	521	640	134	602	660	120	267				239	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	521	640	134	602	660	120	267				239	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	84	100	89	98	100	100	94				100	
cM capacity (veh/h)	418	369	891	327	359	910	1294				1325	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	68	96	77	120	120	151	116					
Volume Left	68	0	77	0	0	0	0					
Volume Right	0	96	0	0	0	0	41					
cSH	418	891	1294	1700	1700	1700	1700					
Volume to Capacity	0.16	0.11	0.06	0.07	0.07	0.09	0.07					
Queue Length 95th (ft)	14	9	5	0	0	0	0					
Control Delay (s)	15.3	9.5	8.0	0.0	0.0	0.0	0.0					
Lane LOS	C	A	A									
Approach Delay (s)	11.9			1.9	0.0							
Approach LOS	B											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	77	49	263	175	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1696		1770	1863	1863	1583
Flt Permitted	0.98		0.65	1.00	1.00	1.00
Satd. Flow (perm)	1696		1205	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	79	77	49	263	175	39
RTOR Reduction (vph)	44	0	0	0	0	23
Lane Group Flow (vph)	112	0	49	263	175	16
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	716		482	745	745	633
v/s Ratio Prot	c0.07			c0.14	0.09	
v/s Ratio Perm			0.04			0.01
v/c Ratio	0.16		0.10	0.35	0.23	0.02
Uniform Delay, d1	8.0		8.4	9.4	8.9	8.2
Progression Factor	1.00		1.00	1.00	0.65	0.68
Incremental Delay, d2	0.5		0.4	1.3	0.7	0.1
Delay (s)	8.5		8.9	10.7	6.5	5.6
Level of Service	A		A	B	A	A
Approach Delay (s)	8.5			10.4	6.3	
Approach LOS	A			B	A	

Intersection Summary

HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	854	118	0	0	0	0	395	73	4	88	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.98			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4965						3456			1859	
Flt Permitted		0.99						1.00			0.98	
Satd. Flow (perm)		4965						3456			1824	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	854	118	0	0	0	0	395	73	4	88	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	1149	0	0	0	0	0	434	0	0	92	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1152			608	
v/s Ratio Prot		c0.23						c0.13				
v/s Ratio Perm											0.05	
v/c Ratio		0.47						0.38			0.15	
Uniform Delay, d1		7.6						11.4			10.5	
Progression Factor		1.00						1.31			1.19	
Incremental Delay, d2		0.7						0.9			0.5	
Delay (s)		8.3						15.9			13.1	
Level of Service		A						B			B	
Approach Delay (s)		8.3			0.0			15.9			13.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		10.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		43.2%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	64	80	478	134	481	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.91	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					3047	1441		3501				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					3047	1441		3501				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	64	80	478	134	481	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	84	84	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	299	155	0	615	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1489	704		1167				
v/s Ratio Prot					0.10			c0.18				
v/s Ratio Perm						c0.11						
v/c Ratio					0.20	0.22		0.53				
Uniform Delay, d1					6.5	6.6		12.1				
Progression Factor					1.00	1.00		0.81				
Incremental Delay, d2					0.3	0.7		1.6				
Delay (s)					6.8	7.3		11.4				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.0			11.4			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.2				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			43.6%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	758	0	0	0	0	0	876	139	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6365						4981				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6365						4981				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	758	0	0	0	0	0	876	139	0	0	0
RTOR Reduction (vph)	0	34	0	0	0	0	0	48	0	0	0	0
Lane Group Flow (vph)	0	842	0	0	0	0	0	967	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2687						1992				
v/s Ratio Prot								c0.19				
v/s Ratio Perm		0.13										
v/c Ratio		0.31						0.49				
Uniform Delay, d1		8.7						10.1				
Progression Factor		1.03						0.66				
Incremental Delay, d2		0.3						0.8				
Delay (s)		9.2						7.4				
Level of Service		A						A				
Approach Delay (s)		9.2			0.0			7.4			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.2						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.40										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		66.7%						ICU Level of Service		C		
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	44	312	5	1	195	309	9	1	3	340	2	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	44	312	5	1	195	309	9	1	3	340	2	46
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	361	196	309	13	388							
Volume Left (vph)	44	1	0	9	340							
Volume Right (vph)	5	0	309	3	46							
Hadj (s)	0.05	0.04	-0.67	0.03	0.14							
Departure Headway (s)	6.2	6.5	5.8	7.4	6.3							
Degree Utilization, x	0.62	0.36	0.50	0.03	0.68							
Capacity (veh/h)	557	528	594	389	388							
Control Delay (s)	18.8	11.9	13.3	10.6	21.4							
Approach Delay (s)	18.8	12.8		10.6	21.4							
Approach LOS	C	B		B	C							
Intersection Summary												
Delay			17.1									
Level of Service			C									
Intersection Capacity Utilization			66.7%	ICU Level of Service					C			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	160	44	57	200	39	31	487	45	87	747	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	174	48	62	217	42	34	529	49	95	812	175
RTOR Reduction (vph)	0	0	37	0	17	0	0	6	0	0	0	152
Lane Group Flow (vph)	195	174	11	62	242	0	34	572	0	95	812	23
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Effective Green, g (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Actuated g/C Ratio	0.13	0.23	0.23	0.07	0.17		0.04	0.37		0.10	0.43	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	450	814	364	125	585		72	1288		185	1529	207
v/s Ratio Prot	c0.06	0.05		0.04	c0.07		0.02	0.16		c0.05	c0.23	0.01
v/s Ratio Perm			0.01									
v/c Ratio	0.43	0.21	0.03	0.50	0.41		0.47	0.44		0.51	0.53	0.11
Uniform Delay, d1	28.3	22.1	21.1	31.7	26.3		33.2	16.9		30.0	14.8	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	3.1	0.5		4.8	1.1		2.4	1.3	0.2
Delay (s)	29.0	22.2	21.2	34.8	26.7		38.0	18.0		32.4	16.1	27.3
Level of Service	C	C	C	C	C		D	B		C	B	C
Approach Delay (s)		25.3			28.3			19.1			19.4	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			21.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			70.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			49.2%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	141	99	50	134	95	84	510	38	125	1092	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Flt Protected	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Satd. Flow (perm)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	153	108	54	146	103	91	554	41	136	1187	125
RTOR Reduction (vph)	0	87	0	0	88	0	0	0	25	0	0	62
Lane Group Flow (vph)	110	174	0	54	161	0	91	554	16	136	1187	63
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Effective Green, g (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Actuated g/C Ratio	0.12	0.19		0.07	0.15		0.09	0.39	0.39	0.10	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	635		125	481		296	1392	622	333	1430	640
v/s Ratio Prot	c0.06	c0.05		0.03	0.05		0.03	0.16		c0.04	c0.34	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.53	0.27		0.43	0.33		0.31	0.40	0.03	0.41	0.83	0.10
Uniform Delay, d1	26.9	22.4		28.8	24.9		27.8	14.1	12.0	27.5	17.3	12.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2		2.4	0.4		0.6	0.9	0.1	0.8	5.7	0.3
Delay (s)	29.5	22.6		31.2	25.3		28.4	15.0	12.1	28.3	23.0	12.3
Level of Service	C	C		C	C		C	B	B	C	C	B
Approach Delay (s)		24.6			26.4			16.6			22.6	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.8				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			64.8				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			59.2%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Residential Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	25	15	201	56	45	32	7	32	77	93
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	25	15	201	56	45	32	7	32	77	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	257			99			396	422	50	367	406	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	257			99			396	422	50	367	406	128
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			89	94	99	94	85	90
cM capacity (veh/h)	1305			1492			418	507	1008	522	518	898
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	62	116	156	84	32	51	119				
Volume Left	24	0	15	0	45	32	0	0				
Volume Right	0	25	0	56	7	0	0	93				
cSH	1305	1700	1492	1700	473	522	518	775				
Volume to Capacity	0.02	0.04	0.01	0.09	0.18	0.06	0.10	0.15				
Queue Length 95th (ft)	1	0	1	0	16	5	8	13				
Control Delay (s)	3.2	0.0	1.0	0.0	14.3	12.3	12.7	10.5				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.6		0.4		14.3	11.3						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.6									
Intersection Capacity Utilization			34.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	549	34	0	0	0	0	102	21	52	187	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5037						3449		1770	5085	
Flt Permitted		1.00						1.00		0.67	1.00	
Satd. Flow (perm)		5037						3449		1256	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	549	34	0	0	0	0	102	21	52	187	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	584	0	0	0	0	0	109	0	52	187	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2887						1103		401	1627	
v/s Ratio Prot								0.03			0.04	
v/s Ratio Perm		0.12								c0.04		
v/c Ratio		0.20						0.10		0.13	0.11	
Uniform Delay, d1		7.7						17.9		18.1	18.0	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						0.2		0.7	0.1	
Delay (s)		7.9						18.1		18.8	18.1	
Level of Service		A						B		B	B	
Approach Delay (s)		7.9			0.0			18.1			18.3	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.18										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		28.4%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↑↑	↑		↓	↑↑			↑↑↓
Volume (vph)	0	0	0	101	270	260	9	25	90	0	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.96
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3492	1583		1770	3539			4895
Flt Permitted					0.99	1.00		0.63	1.00			1.00
Satd. Flow (perm)					3492	1583		1180	3539			4895
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	101	270	260	9	25	90	0	0	135
RTOR Reduction (vph)	0	0	0	0	0	99	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	0	371	161	0	34	90	0	0	149
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2165	981		354	1061			1468
v/s Ratio Prot									0.03			c0.03
v/s Ratio Perm					0.11	0.10		0.03				
v/c Ratio					0.17	0.16		0.10	0.08			0.10
Uniform Delay, d1					8.1	8.0		25.2	25.1			25.3
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.2	0.4		0.5	0.2			0.1
Delay (s)					8.3	8.4		25.8	25.3			25.4
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.3				25.4			25.4
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			13.9		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.15									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			28.4%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013



Movement	SBR
Left Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	45
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	268	34	42	581	36	158	151	17	40	81	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.98		1.00	0.99		1.00	0.98		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4999		1770	5041		1770	3485		1770	4719	
Flt Permitted	0.33	1.00		0.56	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	609	4999		1044	5041		1770	3485		1770	4719	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	268	34	42	581	36	158	151	17	40	81	75
RTOR Reduction (vph)	0	20	0	0	9	0	0	9	0	0	66	0
Lane Group Flow (vph)	42	282	0	42	608	0	158	159	0	40	90	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	167	1374		287	1386		796	1568		221	589	
v/s Ratio Prot		0.06			c0.12		c0.09	0.05		c0.02	0.02	
v/s Ratio Perm	0.07			0.04								
v/c Ratio	0.25	0.21		0.15	0.44		0.20	0.10		0.18	0.15	
Uniform Delay, d1	22.6	22.3		21.9	23.9		13.3	12.7		31.3	31.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.6	0.3		1.1	1.0		0.6	0.1		1.8	0.6	
Delay (s)	26.2	22.6		23.0	24.9		13.8	12.8		33.1	31.8	
Level of Service	C	C		C	C		B	B		C	C	
Approach Delay (s)		23.1			24.8			13.3			32.1	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			22.9				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			40.8%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	139	772	412	27	79	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6030	5038		3288	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6030	5038		3288	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	772	412	27	79	59
RTOR Reduction (vph)	90	53	9	0	0	0
Lane Group Flow (vph)	35	733	430	0	138	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1688	1410		920	
v/s Ratio Prot	0.02	c0.12	c0.09		c0.04	
v/s Ratio Perm						
v/c Ratio	0.09	0.43	0.30		0.15	
Uniform Delay, d1	19.9	22.1	21.3		20.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.8	0.6		0.3	
Delay (s)	20.4	22.9	21.8		20.6	
Level of Service	C	C	C		C	
Approach Delay (s)		22.6	21.8		20.6	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			22.2		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.30			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			33.9%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	177	214	37	490	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3216	1441	1433	6033				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3216	1441	1433	6033				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	177	214	37	490	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	81	15	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	208	41	18	487	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1072	480	802	3378				
v/s Ratio Prot					c0.06							
v/s Ratio Perm						0.03	0.01	0.08				
v/c Ratio					0.19	0.08	0.02	0.14				
Uniform Delay, d1					17.8	17.2	7.4	7.9				
Progression Factor					1.00	1.00	0.30	0.44				
Incremental Delay, d2					0.4	0.3	0.1	0.1				
Delay (s)					18.2	17.5	2.2	3.6				
Level of Service					B	B	A	A				
Approach Delay (s)		0.0			18.0			3.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.7		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			22.6%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	70	51	7	125	99	13	54	0	73	69	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	70	51	7	125	99	13	54	0	73	69	13
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	129	231	40	27	108	48						
Volume Left (vph)	8	7	13	0	73	0						
Volume Right (vph)	51	99	0	0	0	13						
Hadj (s)	-0.19	-0.22	0.20	0.03	0.37	-0.16						
Departure Headway (s)	4.6	4.4	5.7	5.6	5.8	5.3						
Degree Utilization, x	0.16	0.28	0.06	0.04	0.17	0.07						
Capacity (veh/h)	734	770	580	596	581	638						
Control Delay (s)	8.5	9.2	7.9	7.6	8.8	7.5						
Approach Delay (s)	8.5	9.2	7.8		8.4							
Approach LOS	A	A	A		A							
Intersection Summary												
Delay			8.7									
Level of Service			A									
Intersection Capacity Utilization			32.1%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	4	4	9	29	34	4	150	8	32	175	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	4	4	9	29	34	4	150	8	32	175	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	378	412	95	320	416	79	190			158		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	378	412	95	320	416	79	190			158		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	98	94	96	100			98		
cM capacity (veh/h)	502	515	943	592	512	965	1381			1419		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	17	72	79	83	120	102						
Volume Left	9	9	4	0	32	0						
Volume Right	4	34	0	8	0	15						
cSH	568	673	1381	1700	1419	1700						
Volume to Capacity	0.03	0.11	0.00	0.05	0.02	0.06						
Queue Length 95th (ft)	2	9	0	0	2	0						
Control Delay (s)	11.5	11.0	0.4	0.0	2.2	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.5	11.0	0.2		1.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			24.9%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	4	45	46	22	153	9	40	189	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.93			0.99			0.97	
Flt Protected		0.98			1.00			0.99			0.99	
Satd. Flow (prot)		1774			1737			3492			3399	
Flt Permitted		0.89			0.99			0.91			0.91	
Satd. Flow (perm)		1616			1728			3204			3099	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	4	45	46	22	153	9	40	189	65
RTOR Reduction (vph)	0	14	0	0	31	0	0	4	0	0	31	0
Lane Group Flow (vph)	0	79	0	0	64	0	0	180	0	0	263	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		528			565			1689			1634	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.04			0.06			c0.08	
v/c Ratio		0.15			0.11			0.11			0.16	
Uniform Delay, d1		13.1			12.9			6.5			6.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.4			0.1			0.2	
Delay (s)		13.7			13.3			6.6			6.9	
Level of Service		B			B			A			A	
Approach Delay (s)		13.7			13.3			6.6			6.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.7									
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			55.0									
Intersection Capacity Utilization			35.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	705	136	75	0	0	0	0	149	250	422	308	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	136	75	0	0	0	0	149	250	422	308	0
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	180	0	0	0
Lane Group Flow (vph)	352	489	21	0	0	0	0	149	70	422	308	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	916	443					990	443	961	521	
v/s Ratio Prot	c0.22	0.15	0.01					0.04	c0.04	0.12	c0.17	
v/s Ratio Perm												
v/c Ratio	0.78	0.53	0.05					0.15	0.16	0.44	0.59	
Uniform Delay, d1	24.9	22.9	19.7					20.3	20.3	22.2	23.3	
Progression Factor	0.87	0.86	0.76					1.00	1.00	1.16	1.15	
Incremental Delay, d2	12.7	2.2	0.2					0.3	0.8	1.3	4.4	
Delay (s)	34.4	21.8	15.1					20.6	21.1	26.9	31.1	
Level of Service	C	C	B					C	C	C	C	
Approach Delay (s)		26.1			0.0			20.9			28.7	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			26.0		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			69.3%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	406	198	661	24	156	0	0	355	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.91	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3072	1441	1770	3539			5001	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3072	1441	1770	3539			5001	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	406	198	661	24	156	0	0	355	44
RTOR Reduction (vph)	0	0	0	0	225	224	0	0	0	0	21	0
Lane Group Flow (vph)	0	0	0	406	304	106	24	156	0	0	378	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	983	461	212	2029			2000	
v/s Ratio Prot				c0.23	0.10	0.07	c0.01	0.04			c0.08	
v/s Ratio Perm												
v/c Ratio				0.72	0.31	0.23	0.11	0.08			0.19	
Uniform Delay, d1				22.5	19.2	18.7	29.4	7.1			14.6	
Progression Factor				1.00	1.00	1.00	0.63	0.15			1.00	
Incremental Delay, d2				7.6	0.8	1.2	0.9	0.1			0.2	
Delay (s)				30.1	20.1	19.9	19.6	1.2			14.8	
Level of Service				C	C	B	B	A			B	
Approach Delay (s)		0.0			23.2			3.6			14.8	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			19.5									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 12.0
Intersection Capacity Utilization			69.3%									ICU Level of Service C
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	525	109	0	0	0	0	424	83	82	428	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		6228						3452		1770	3539	
Flt Permitted		1.00						1.00		0.33	1.00	
Satd. Flow (perm)		6228						3452		616	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	525	109	0	0	0	0	424	83	82	428	0
RTOR Reduction (vph)	0	55	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	649	0	0	0	0	0	480	0	82	428	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		20.0						20.0		32.0	32.0	
Effective Green, g (s)		20.0						20.0		32.0	32.0	
Actuated g/C Ratio		0.33						0.33		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2076						1150		482	1887	
v/s Ratio Prot		c0.10						c0.14		0.02	c0.12	
v/s Ratio Perm										0.07		
v/c Ratio		0.31						0.42		0.17	0.23	
Uniform Delay, d1		14.9						15.5		7.3	7.4	
Progression Factor		1.00						1.00		0.85	0.75	
Incremental Delay, d2		0.4						1.1		0.7	0.3	
Delay (s)		15.3						16.6		6.9	5.9	
Level of Service		B						B		A	A	
Approach Delay (s)		15.3			0.0			16.6			6.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		39.4%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	91	296	63	97	374	0	0	403	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4929		1770	3539			5024	
Flt Permitted					0.99		0.41	1.00			1.00	
Satd. Flow (perm)					4929		758	3539			5024	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	91	296	63	97	374	0	0	403	35
RTOR Reduction (vph)	0	0	0	0	37	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	413	0	97	374	0	0	421	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1643		539	1887			1674	
v/s Ratio Prot					c0.08		0.02	c0.11			c0.08	
v/s Ratio Perm							0.07					
v/c Ratio					0.25		0.18	0.20			0.25	
Uniform Delay, d1					14.6		7.1	7.3			14.6	
Progression Factor					1.00		0.61	0.59			1.83	
Incremental Delay, d2					0.4		0.7	0.2			0.3	
Delay (s)					14.9		5.0	4.5			26.9	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			14.9			4.6			26.9	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.2				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.25									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			39.4%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	273	83	1	268	91	0	360	29	0	497	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3415			3405			3500			3471	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		3256			3250			3500			3471	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	273	83	1	268	91	0	360	29	0	497	73
RTOR Reduction (vph)	0	46	0	0	50	0	0	10	0	0	19	0
Lane Group Flow (vph)	0	313	0	0	310	0	0	379	0	0	551	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1465			1462			1458			1446	
v/s Ratio Prot								0.11			c0.16	
v/s Ratio Perm		c0.10			0.10							
v/c Ratio		0.21			0.21			0.26			0.38	
Uniform Delay, d1		10.0			10.0			11.4			12.1	
Progression Factor		1.00			1.00			1.91			1.00	
Incremental Delay, d2		0.3			0.3			0.4			0.8	
Delay (s)		10.4			10.4			22.3			12.9	
Level of Service		B			B			C			B	
Approach Delay (s)		10.4			10.4			22.3			12.9	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		35.1%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	12	52	0	0	0	0	12	13	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	12	52	0	0	0	0	12	13	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	52			41			126	110	34	110	117	52
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52			41			126	110	34	110	117	52
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	98	99
cM capacity (veh/h)	1554			1568			824	775	1040	864	767	1016
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	64	18	16								
Volume Left	0	12	12	0								
Volume Right	15	0	0	10								
cSH	1700	1568	827	901								
Volume to Capacity	0.02	0.01	0.02	0.02								
Queue Length 95th (ft)	0	1	2	1								
Control Delay (s)	0.0	1.4	9.5	9.1								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.3									
Approach LOS			A									
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			20.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	28	13	15	35	0	0	0	0	6	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	28	13	15	35	0	0	0	0	6	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	35			41			103	100	34	100	106	35
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			41			103	100	34	100	106	35
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1576			1568			867	783	1039	876	777	1038
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	50	8	4								
Volume Left	0	15	6	0								
Volume Right	13	0	0	2								
cSH	1700	1568	854	907								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	2.2	9.3	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	2.2	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			19.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013

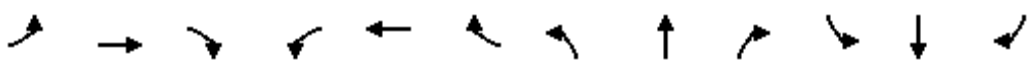


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	62	124	168	70	64	100
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	62	124	168	70	64	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		256	124	248	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		256	124	248	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	96		70	91	90	91
cM capacity (veh/h)	1623		567	737	630	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	62	124	238	64	100	
Volume Left	62	0	168	0	0	
Volume Right	0	124	0	0	100	
cSH	1623	1700	608	630	1085	
Volume to Capacity	0.04	0.07	0.39	0.10	0.09	
Queue Length 95th (ft)	3	0	46	8	8	
Control Delay (s)	7.3	0.0	14.7	11.4	8.7	
Lane LOS	A		B	B	A	
Approach Delay (s)	2.4		14.7	9.7		
Approach LOS			B	A		
Intersection Summary						
Average Delay			9.4			
Intersection Capacity Utilization			29.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑	↑↑			
Volume (vph)	51	214	0	0	0	0	0	533	1197	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5037						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5037						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	214	0	0	0	0	0	533	1197	0	0	0
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	473	0	0	0
Lane Group Flow (vph)	0	232	0	0	0	0	0	533	724	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1790						2373	1300			
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.05							c0.26			
v/c Ratio		0.13						0.22	0.56			
Uniform Delay, d1		9.8						7.1	8.6			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.2	1.7			
Delay (s)		9.9						7.4	10.4			
Level of Service		A						A	B			
Approach Delay (s)		9.9			0.0			9.5			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.5			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		87.5%			ICU Level of Service			E				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	366	418	0	0	0	0	217	33	66	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4721						1830		1770	1863	
Flt Permitted		0.99						1.00		0.60	1.00	
Satd. Flow (perm)		4721						1830		1125	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	260	366	418	0	0	0	0	217	33	66	89	0
RTOR Reduction (vph)	0	267	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	777	0	0	0	0	0	238	0	66	89	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1363						976		600	993	
v/s Ratio Prot								c0.13			0.05	
v/s Ratio Perm		0.16								0.06		
v/c Ratio		0.57						0.24		0.11	0.09	
Uniform Delay, d1		13.6						5.6		5.2	5.1	
Progression Factor		1.00						1.00		0.33	0.34	
Incremental Delay, d2		1.7						0.6		0.4	0.2	
Delay (s)		15.4						6.2		2.1	1.9	
Level of Service		B						A		A	A	
Approach Delay (s)		15.4			0.0			6.2			2.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		62.0%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	279	50	279	238	0	0	178	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.64	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1201	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	279	50	279	238	0	0	178	1262
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	279	12	279	238	0	0	178	1262
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	693	1076			1076	1583
v/s Ratio Prot				0.00	0.15			0.13			0.10	
v/s Ratio Perm						0.01	0.23					c0.80
v/c Ratio				0.00	0.61	0.03	0.40	0.22			0.17	0.80
Uniform Delay, d1				12.9	15.1	12.9	5.2	4.6			4.4	0.0
Progression Factor				0.72	0.71	0.71	1.02	1.00			1.52	1.00
Incremental Delay, d2				0.0	6.0	0.1	1.6	0.4			0.3	3.8
Delay (s)				9.3	16.7	9.3	6.9	5.0			7.1	3.8
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			15.5			6.1			4.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.2									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			62.0%									ICU Level of Service B
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	442	1113	0	0	0	0	265	67	20	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4410	1362					1812			1856	
Flt Permitted		1.00	1.00					1.00			0.96	
Satd. Flow (perm)		4410	1362					1812			1797	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	442	1113	0	0	0	0	265	67	20	255	0
RTOR Reduction (vph)	0	230	230	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	801	326	0	0	0	0	312	0	0	275	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2058	635					644			638	
v/s Ratio Prot		0.18						c0.17				
v/s Ratio Perm			c0.24								0.15	
v/c Ratio		0.39	0.51					0.48			0.43	
Uniform Delay, d1		7.8	8.4					11.3			11.0	
Progression Factor		1.00	1.00					0.64			1.00	
Incremental Delay, d2		0.6	2.9					2.6			2.1	
Delay (s)		8.4	11.4					9.8			13.2	
Level of Service		A	B					A			B	
Approach Delay (s)		9.4			0.0			9.8			13.2	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			10.0					HCM 2000 Level of Service			A	
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			67.1%					ICU Level of Service			C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	416	17	0	0	0	0	0	0	548	127	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5055								1610	3278	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5055								1610	3278	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	17	0	0	0	0	0	0	548	127	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	119	119	0
Lane Group Flow (vph)	0	424	0	0	0	0	0	0	0	155	282	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1567	
v/s Ratio Prot		c0.08										
v/s Ratio Perm										c0.10	0.09	
v/c Ratio		0.24								0.20	0.18	
Uniform Delay, d1		10.7								6.9	6.8	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.3								0.6	0.3	
Delay (s)		11.0								7.5	7.1	
Level of Service		B								A	A	
Approach Delay (s)		11.0			0.0			0.0			7.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.7			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.22										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		28.0%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	31	164	0	0	0	0	0	639	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5045						4897	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5045						4897	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	31	164	0	0	0	0	0	639	210
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	174	0	0	0	0	0	742	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1681						2394	
v/s Ratio Prot					c0.03						c0.15	
v/s Ratio Perm												
v/c Ratio					0.10						0.31	
Uniform Delay, d1					10.4						6.9	
Progression Factor					1.10						0.58	
Incremental Delay, d2					0.1						0.3	
Delay (s)					11.6						4.3	
Level of Service					B						A	
Approach Delay (s)		0.0			11.6			0.0			4.3	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			28.0%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	331	193	0	0	0	0	0	0	121	607	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6054									5043	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6054									5043	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	331	193	0	0	0	0	0	0	121	607	0
RTOR Reduction (vph)	0	124	0	0	0	0	0	0	0	0	65	0
Lane Group Flow (vph)	0	400	0	0	0	0	0	0	0	0	663	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2152									2353	
v/s Ratio Prot		c0.07										
v/s Ratio Perm											0.13	
v/c Ratio		0.19									0.28	
Uniform Delay, d1		10.0									7.4	
Progression Factor		0.61									1.00	
Incremental Delay, d2		0.2									0.3	
Delay (s)		6.3									7.7	
Level of Service		A									A	
Approach Delay (s)		6.3			0.0			0.0			7.7	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.1				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			28.9%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	192	0	75	2	0	0	165	227	0	0	201	127
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	192	0	75	2	0	0	165	227	0	0	201	127
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	708	822	164	732	885	114	328				227	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	708	822	164	732	885	114	328				227	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	33	100	91	99	100	100	87				100	
cM capacity (veh/h)	289	266	852	253	244	918	1228				1339	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	192	75	165	114	114	134	194					
Volume Left	192	0	165	0	0	0	0					
Volume Right	0	75	0	0	0	0	127					
cSH	289	852	1228	1700	1700	1700	1700					
Volume to Capacity	0.67	0.09	0.13	0.07	0.07	0.08	0.11					
Queue Length 95th (ft)	109	7	12	0	0	0	0					
Control Delay (s)	39.2	9.6	8.4	0.0	0.0	0.0	0.0					
Lane LOS	E	A	A									
Approach Delay (s)	30.9			3.5	0.0							
Approach LOS	D											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	W	W	W
Volume (vph)	57	65	58	381	289	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1689		1770	1863	1863	1583
Flt Permitted	0.98		0.55	1.00	1.00	1.00
Satd. Flow (perm)	1689		1016	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	57	65	58	381	289	52
RTOR Reduction (vph)	38	0	0	0	0	31
Lane Group Flow (vph)	84	0	58	381	289	21
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	713		406	745	745	633
v/s Ratio Prot	c0.05			c0.20	0.16	
v/s Ratio Perm			0.06			0.01
v/c Ratio	0.12		0.14	0.51	0.39	0.03
Uniform Delay, d1	7.9		8.6	10.2	9.6	8.2
Progression Factor	1.00		1.00	1.00	0.71	0.83
Incremental Delay, d2	0.3		0.7	2.5	1.5	0.1
Delay (s)	8.2		9.3	12.7	8.3	6.9
Level of Service	A		A	B	A	A
Approach Delay (s)	8.2			12.2	8.1	
Approach LOS	A			B	A	

Intersection Summary

HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	555	126	0	0	0	0	263	173	2	168	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.94			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3329			1862	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		4919						3329			1854	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	555	126	0	0	0	0	263	173	2	168	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	115	0	0	0	0
Lane Group Flow (vph)	0	850	0	0	0	0	0	321	0	0	170	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1109			618	
v/s Ratio Prot		c0.17						c0.10				
v/s Ratio Perm											0.09	
v/c Ratio		0.35						0.29			0.28	
Uniform Delay, d1		7.1						11.1			11.0	
Progression Factor		1.00						2.06			1.22	
Incremental Delay, d2		0.4						0.6			1.1	
Delay (s)		7.5						23.4			14.5	
Level of Service		A						C			B	
Approach Delay (s)		7.5			0.0			23.4			14.5	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		12.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		37.5%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	151	66	567	116	393	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.91	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					3056	1441		3499				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					3056	1441		3499				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	151	66	567	116	393	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	120	120	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	381	163	0	509	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1494	704		1166				
v/s Ratio Prot					c0.12			c0.15				
v/s Ratio Perm						0.11						
v/c Ratio					0.26	0.23		0.44				
Uniform Delay, d1					6.7	6.6		11.7				
Progression Factor					1.00	1.00		1.00				
Incremental Delay, d2					0.4	0.8		1.1				
Delay (s)					7.1	7.4		12.9				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.2			12.9			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.5				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			44.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	324	0	0	0	0	0	850	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6343						5010				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6343						5010				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	324	0	0	0	0	0	850	93	0	0	0
RTOR Reduction (vph)	0	37	0	0	0	0	0	29	0	0	0	0
Lane Group Flow (vph)	0	371	0	0	0	0	0	914	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2678						2004				
v/s Ratio Prot								c0.18				
v/s Ratio Perm		0.06										
v/c Ratio		0.14						0.46				
Uniform Delay, d1		8.0						9.9				
Progression Factor		0.93						0.70				
Incremental Delay, d2		0.1						0.7				
Delay (s)		7.5						7.7				
Level of Service		A						A				
Approach Delay (s)		7.5			0.0			7.7			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		7.6			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		65.2%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	231	4	4	264	190	7	2	2	267	4	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	231	4	4	264	190	7	2	2	267	4	103
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	256	268	190	11	374							
Volume Left (vph)	21	4	0	7	267							
Volume Right (vph)	4	0	190	2	103							
Hadj (s)	0.04	0.04	-0.67	0.05	0.01							
Departure Headway (s)	5.9	6.1	5.4	6.6	5.7							
Degree Utilization, x	0.42	0.46	0.29	0.02	0.59							
Capacity (veh/h)	575	562	633	444	598							
Control Delay (s)	13.1	13.0	9.4	9.8	16.7							
Approach Delay (s)	13.1	11.5		9.8	16.7							
Approach LOS	B	B		A	C							
Intersection Summary												
Delay			13.6									
Level of Service			B									
Intersection Capacity Utilization			62.7%	ICU Level of Service		B						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	197	69	23	202	64	75	836	36	40	442	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	214	75	25	220	70	82	909	39	43	480	255
RTOR Reduction (vph)	0	0	52	0	33	0	0	2	0	0	0	215
Lane Group Flow (vph)	299	214	23	25	257	0	82	946	0	43	480	40
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Effective Green, g (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Actuated g/C Ratio	0.16	0.30	0.30	0.04	0.18		0.10	0.38		0.06	0.35	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	544	1075	481	64	620		170	1340		108	1224	251
v/s Ratio Prot	c0.09	0.06		0.01	c0.08		c0.05	c0.27		0.02	0.14	0.03
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.20	0.05	0.39	0.41		0.48	0.71		0.40	0.39	0.16
Uniform Delay, d1	28.6	19.0	18.1	34.7	26.7		31.6	19.3		33.3	18.2	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	3.9	0.5		2.2	3.1		2.4	0.9	0.3
Delay (s)	29.7	19.1	18.2	38.6	27.1		33.7	22.4		35.7	19.2	27.1
Level of Service	C	B	B	D	C		C	C		D	B	C
Approach Delay (s)		24.4			28.0			23.3			22.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			23.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			73.7			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			56.4%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	173	76	33	171	82	107	808	42	75	307	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Flt Protected	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	188	83	36	186	89	116	878	46	82	334	37
RTOR Reduction (vph)	0	50	0	0	62	0	0	0	28	0	0	23
Lane Group Flow (vph)	101	221	0	36	213	0	116	878	18	82	334	14
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Effective Green, g (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Actuated g/C Ratio	0.11	0.24		0.04	0.17		0.09	0.39	0.39	0.08	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	803		77	571		312	1394	623	280	1361	609
v/s Ratio Prot	c0.06	0.07		0.02	c0.06		c0.03	c0.25		0.02	0.09	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.51	0.27		0.47	0.37		0.37	0.63	0.03	0.29	0.25	0.02
Uniform Delay, d1	27.6	20.5		30.8	24.3		28.2	16.1	12.3	28.5	13.8	12.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.2		4.4	0.4		0.7	2.2	0.1	0.6	0.4	0.1
Delay (s)	29.8	20.7		35.2	24.7		29.0	18.3	12.3	29.1	14.2	12.7
Level of Service	C	C		D	C		C	B	B	C	B	B
Approach Delay (s)		23.2			25.9			19.2			16.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.3				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			66.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			51.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Residential Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	273	22	14	125	91	41	116	25	46	59	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	52	273	22	14	125	91	41	116	25	46	59	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	216			295			545	632	148	522	598	108
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216			295			545	632	148	522	598	108
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			88	69	97	85	85	96
cM capacity (veh/h)	1351			1263			345	377	873	312	394	925
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	188	158	76	154	182	46	39	57				
Volume Left	52	0	14	0	41	46	0	0				
Volume Right	0	22	0	91	25	0	0	37				
cSH	1351	1700	1263	1700	400	312	394	630				
Volume to Capacity	0.04	0.09	0.01	0.09	0.46	0.15	0.10	0.09				
Queue Length 95th (ft)	3	0	1	0	58	13	8	7				
Control Delay (s)	2.4	0.0	1.5	0.0	21.3	18.5	15.1	11.3				
Lane LOS	A		A		C	C	C	B				
Approach Delay (s)	1.3		0.5		21.3	14.7						
Approach LOS					C	B						
Intersection Summary												
Average Delay			7.3									
Intersection Capacity Utilization			43.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	730	29	0	0	0	0	220	25	103	109	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5054						3485		1770	5085	
Flt Permitted		1.00						1.00		0.60	1.00	
Satd. Flow (perm)		5054						3485		1117	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	730	29	0	0	0	0	220	25	103	109	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	762	0	0	0	0	0	233	0	103	109	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2897						1115		357	1627	
v/s Ratio Prot								0.07			0.02	
v/s Ratio Perm		0.15								c0.09		
v/c Ratio		0.26						0.21		0.29	0.07	
Uniform Delay, d1		8.0						18.6		19.1	17.7	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						0.4		2.0	0.1	
Delay (s)		8.3						19.0		21.1	17.8	
Level of Service		A						B		C	B	
Approach Delay (s)		8.3			0.0			19.0			19.4	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		12.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.27										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		37.5%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	30	145	265	12	32	195	0	0	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.97
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	3539			4958
Flt Permitted					0.99	1.00		0.62	1.00			1.00
Satd. Flow (perm)					3509	1583		1152	3539			4958
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	30	145	265	12	32	195	0	0	170
RTOR Reduction (vph)	0	0	0	0	0	101	0	0	0	0	0	24
Lane Group Flow (vph)	0	0	0	0	175	164	0	44	195	0	0	180
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2175	981		345	1061			1487
v/s Ratio Prot									c0.06			0.04
v/s Ratio Perm					0.05	c0.10		0.04				
v/c Ratio					0.08	0.17		0.13	0.18			0.12
Uniform Delay, d1					7.6	8.1		25.5	25.9			25.4
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.1	0.4		0.8	0.4			0.2
Delay (s)					7.7	8.4		26.2	26.3			25.6
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.1				26.3			25.6
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			17.1		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.17									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			37.5%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013



Movement	SBR
Volume (vph)	34
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	34
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			  	
Volume (vph)	94	705	66	36	325	35	189	213	45	53	95	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5020		1770	5011		1770	3447		1770	4790	
Flt Permitted	0.51	1.00		0.24	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	958	5020		448	5011		1770	3447		1770	4790	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	705	66	36	325	35	189	213	45	53	95	60
RTOR Reduction (vph)	0	14	0	0	16	0	0	22	0	0	53	0
Lane Group Flow (vph)	94	757	0	36	344	0	189	236	0	53	103	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	263	1380		123	1378		796	1551		221	598	
v/s Ratio Prot		c0.15			0.07		c0.11	0.07		c0.03	0.02	
v/s Ratio Perm	0.10			0.08								
v/c Ratio	0.36	0.55		0.29	0.25		0.24	0.15		0.24	0.17	
Uniform Delay, d1	23.3	24.8		22.9	22.6		13.5	13.0		31.6	31.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	1.6		5.9	0.4		0.7	0.2		2.6	0.6	
Delay (s)	27.1	26.3		28.8	23.0		14.3	13.2		34.1	31.9	
Level of Service	C	C		C	C		B	B		C	C	
Approach Delay (s)		26.4			23.5			13.6			32.5	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			23.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			45.6%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	158	500	1114	35	61	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6017	5062		3316	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6017	5062		3316	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	500	1114	35	61	33
RTOR Reduction (vph)	91	53	4	0	0	0
Lane Group Flow (vph)	35	479	1145	0	94	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1684	1417		928	
v/s Ratio Prot	0.02	c0.08	c0.23		c0.03	
v/s Ratio Perm						
v/c Ratio	0.09	0.28	0.81		0.10	
Uniform Delay, d1	19.9	21.1	25.1		20.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.4	5.0		0.2	
Delay (s)	20.4	21.5	30.2		20.2	
Level of Service	C	C	C		C	
Approach Delay (s)		21.3	30.2		20.2	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			26.6		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.40			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			43.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	216	696	29	1436	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3076	1441	1433	6035				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3076	1441	1433	6035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	216	696	29	1436	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	23	23	11	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	541	325	15	1432	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1025	480	802	3379				
v/s Ratio Prot					0.18							
v/s Ratio Perm						c0.23	0.01	0.24				
v/c Ratio					0.53	0.68	0.02	0.42				
Uniform Delay, d1					20.2	21.5	7.3	9.5				
Progression Factor					1.00	1.00	0.03	0.22				
Incremental Delay, d2					1.9	7.5	0.0	0.3				
Delay (s)					22.2	29.0	0.2	2.4				
Level of Service					C	C	A	A				
Approach Delay (s)		0.0			24.8			2.3			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.9		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			55.1%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	163	60	13	124	105	30	146	17	93	100	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	163	60	13	124	105	30	146	17	93	100	20
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	245	242	103	90	143	70						
Volume Left (vph)	22	13	30	0	93	0						
Volume Right (vph)	60	105	0	17	0	20						
Hadj (s)	-0.09	-0.22	0.18	-0.10	0.36	-0.17						
Departure Headway (s)	5.3	5.2	6.4	6.1	6.5	6.0						
Degree Utilization, x	0.36	0.35	0.18	0.15	0.26	0.12						
Capacity (veh/h)	627	639	520	541	511	553						
Control Delay (s)	11.4	11.1	9.6	9.0	10.6	8.6						
Approach Delay (s)	11.4	11.1	9.3		9.9							
Approach LOS	B	B	A		A							
Intersection Summary												
Delay			10.5									
Level of Service			B									
Intersection Capacity Utilization			41.4%	ICU Level of Service				A				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	31	16	17	26	64	18	295	49	53	278	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	40	31	16	17	26	64	18	295	49	53	278	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	661	780	156	632	772	172	311			344		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	661	780	156	632	772	172	311			344		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	90	98	95	92	92	99			96		
cM capacity (veh/h)	288	306	862	316	310	842	1246			1212		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	87	107	166	196	192	172						
Volume Left	40	17	18	0	53	0						
Volume Right	16	64	0	49	0	33						
cSH	336	500	1246	1700	1212	1700						
Volume to Capacity	0.26	0.21	0.01	0.12	0.04	0.10						
Queue Length 95th (ft)	25	20	1	0	3	0						
Control Delay (s)	19.4	14.1	1.0	0.0	2.5	0.0						
Lane LOS	C	B	A		A							
Approach Delay (s)	19.4	14.1	0.4		1.3							
Approach LOS	C	B										
Intersection Summary												
Average Delay			4.2									
Intersection Capacity Utilization			41.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	135	28	10	120	116	45	299	12	43	252	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.99			0.94			0.99			0.97	
Flt Protected		0.98			1.00			0.99			0.99	
Satd. Flow (prot)		1801			1741			3499			3426	
Flt Permitted		0.79			0.99			0.88			0.89	
Satd. Flow (perm)		1456			1719			3115			3064	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	135	28	10	120	116	45	299	12	43	252	62
RTOR Reduction (vph)	0	7	0	0	59	0	0	4	0	0	29	0
Lane Group Flow (vph)	0	262	0	0	187	0	0	352	0	0	328	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		476			562			1642			1615	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.11			c0.11			0.11	
v/c Ratio		0.55			0.33			0.21			0.20	
Uniform Delay, d1		15.2			14.0			6.9			6.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.5			1.6			0.3			0.3	
Delay (s)		19.7			15.6			7.2			7.2	
Level of Service		B			B			A			A	
Approach Delay (s)		19.7			15.6			7.2			7.2	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		62.1%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1007	296	73	0	0	0	0	318	382	591	334	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3287	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3287	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1007	296	73	0	0	0	0	318	382	591	334	0
RTOR Reduction (vph)	0	0	53	0	0	0	0	0	122	0	0	0
Lane Group Flow (vph)	503	800	20	0	0	0	0	318	260	591	334	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	920	443					990	443	961	521	
v/s Ratio Prot	c0.31	0.24	0.01					0.09	c0.16	0.17	c0.18	
v/s Ratio Perm												
v/c Ratio	1.12	1.07dl	0.05					0.32	0.59	0.61	0.64	
Uniform Delay, d1	27.0	25.7	19.7					21.4	23.3	23.5	23.7	
Progression Factor	0.90	0.90	0.74					1.00	1.00	0.79	0.80	
Incremental Delay, d2	78.5	10.9	0.2					0.9	5.6	2.7	5.6	
Delay (s)	102.8	34.0	14.8					22.2	28.8	21.2	24.5	
Level of Service	F	C	B					C	C	C	C	
Approach Delay (s)		58.1			0.0			25.8			22.4	
Approach LOS		E			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			39.6					HCM 2000 Level of Service			D	
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			75.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			91.9%					ICU Level of Service		F		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	248	139	617	76	285	0	0	752	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.90	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3039	1441	1770	3539			5052	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3039	1441	1770	3539			5052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	248	139	617	76	285	0	0	752	34
RTOR Reduction (vph)	0	0	0	0	210	209	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	248	238	99	76	285	0	0	779	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	972	461	212	2029			2020	
v/s Ratio Prot				c0.14	0.08	0.07	c0.04	0.08			c0.15	
v/s Ratio Perm												
v/c Ratio				0.44	0.24	0.21	0.36	0.14			0.39	
Uniform Delay, d1				20.2	18.8	18.6	30.3	7.4			16.0	
Progression Factor				1.00	1.00	1.00	0.88	0.11			1.00	
Incremental Delay, d2				2.5	0.6	1.1	2.5	0.1			0.6	
Delay (s)				22.6	19.4	19.7	29.3	0.9			16.5	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			20.3			6.9			16.5	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			16.7		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			91.9%		ICU Level of Service					F		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	486	191	0	0	0	0	482	77	99	726	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.96						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		6131						3466		1770	3539	
Flt Permitted		0.99						1.00		0.30	1.00	
Satd. Flow (perm)		6131						3466		556	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	486	191	0	0	0	0	482	77	99	726	0
RTOR Reduction (vph)	0	95	0	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	701	0	0	0	0	0	538	0	99	726	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		20.0						20.0		32.0	32.0	
Effective Green, g (s)		20.0						20.0		32.0	32.0	
Actuated g/C Ratio		0.33						0.33		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2043						1155		458	1887	
v/s Ratio Prot		c0.11						c0.16		0.03	c0.21	
v/s Ratio Perm										0.09		
v/c Ratio		0.34						0.47		0.22	0.38	
Uniform Delay, d1		15.1						15.8		7.5	8.2	
Progression Factor		1.00						1.00		0.78	0.64	
Incremental Delay, d2		0.5						1.3		1.0	0.6	
Delay (s)		15.5						17.1		6.9	5.8	
Level of Service		B						B		A	A	
Approach Delay (s)		15.5			0.0			17.1			5.9	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		46.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	161	511	94	132	474	0	0	613	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4940		1770	3539			4994	
Flt Permitted					0.99		0.27	1.00			1.00	
Satd. Flow (perm)					4940		507	3539			4994	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	161	511	94	132	474	0	0	613	83
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	736	0	132	474	0	0	667	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1646		438	1887			1664	
v/s Ratio Prot					c0.15		c0.04	0.13			c0.13	
v/s Ratio Perm							0.12					
v/c Ratio					0.45		0.30	0.25			0.40	
Uniform Delay, d1					15.7		7.5	7.5			15.4	
Progression Factor					1.00		1.25	0.64			1.92	
Incremental Delay, d2					0.9		1.6	0.3			0.6	
Delay (s)					16.6		11.0	5.1			30.1	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			16.6			6.4			30.1	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			46.2%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	319	109	3	379	114	2	486	32	0	788	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3404			3416			3506			3479	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		3234			3257			3341			3479	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	319	109	3	379	114	2	486	32	0	788	100
RTOR Reduction (vph)	0	48	0	0	47	0	0	8	0	0	16	0
Lane Group Flow (vph)	0	386	0	0	449	0	0	512	0	0	872	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1455			1465			1392			1449	
v/s Ratio Prot											c0.25	
v/s Ratio Perm		0.12			c0.14			0.15				
v/c Ratio		0.27			0.31			0.37			0.60	
Uniform Delay, d1		10.3			10.5			12.1			13.6	
Progression Factor		1.00			1.00			1.77			1.00	
Incremental Delay, d2		0.4			0.5			0.7			1.9	
Delay (s)		10.7			11.1			22.0			15.5	
Level of Service		B			B			C			B	
Approach Delay (s)		10.7			11.1			22.0			15.5	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		15.1			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		48.3%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	10	32	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	10	32	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			262	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			262	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	95	98
cM capacity (veh/h)	1514			1460			644	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	26	37								
Volume Left	0	18	10	0								
Volume Right	39	0	0	21								
cSH	1700	1460	676	802								
Volume to Capacity	0.07	0.01	0.04	0.05								
Queue Length 95th (ft)	0	1	3	4								
Control Delay (s)	0.0	1.4	10.5	9.7								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.1									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	210	12	27	223	0	0	0	0	14	21	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	210	12	27	223	0	0	0	0	14	21	86
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	223			222			590	493	216	493	499	223
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	223			222			590	493	216	493	499	223
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	95	89
cM capacity (veh/h)	1346			1347			357	467	824	479	464	817
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	222	250	24	96								
Volume Left	0	27	14	0								
Volume Right	12	0	0	86								
cSH	1700	1347	472	754								
Volume to Capacity	0.13	0.02	0.05	0.13								
Queue Length 95th (ft)	0	2	4	11								
Control Delay (s)	0.0	1.0	13.0	10.5								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.0	11.0									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			38.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	112	242	192	111	125	76
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	112	242	192	111	125	76
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		362	224	466	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		362	224	466	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	93		54	82	73	93
cM capacity (veh/h)	1623		414	628	460	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	112	242	303	125	76	
Volume Left	112	0	192	0	0	
Volume Right	0	242	0	0	76	
cSH	1623	1700	473	460	1085	
Volume to Capacity	0.07	0.14	0.64	0.27	0.07	
Queue Length 95th (ft)	6	0	111	27	6	
Control Delay (s)	7.4	0.0	25.2	15.7	8.6	
Lane LOS	A		D	C	A	
Approach Delay (s)	2.3		25.2	13.0		
Approach LOS			D	B		
Intersection Summary						
Average Delay			12.9			
Intersection Capacity Utilization			39.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	394	0	0	0	0	0	510	908	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5040						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5040						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	394	0	0	0	0	0	510	908	0	0	0
RTOR Reduction (vph)	0	55	0	0	0	0	0	0	242	0	0	0
Lane Group Flow (vph)	0	425	0	0	0	0	0	510	666	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1792						2373	1300			
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.08							c0.24			
v/c Ratio		0.24						0.21	0.51			
Uniform Delay, d1		10.2						7.1	8.4			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.3						0.2	1.4			
Delay (s)		10.5						7.3	9.9			
Level of Service		B						A	A			
Approach Delay (s)		10.5			0.0			8.9			0.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.3										
HCM 2000 Volume to Capacity ratio		0.39										
Actuated Cycle Length (s)		45.0										
Intersection Capacity Utilization		77.4%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	232	484	380	0	0	0	0	505	28	106	122	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4770						1850		1770	1863	
Flt Permitted		0.99						1.00		0.37	1.00	
Satd. Flow (perm)		4770						1850		693	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	232	484	380	0	0	0	0	505	28	106	122	0
RTOR Reduction (vph)	0	213	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	883	0	0	0	0	0	528	0	106	122	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1378						986		369	993	
v/s Ratio Prot								c0.29			0.07	
v/s Ratio Perm		0.19								0.15		
v/c Ratio		0.64						0.54		0.29	0.12	
Uniform Delay, d1		14.0						6.9		5.8	5.2	
Progression Factor		1.00						1.00		0.40	0.41	
Incremental Delay, d2		2.3						2.1		1.9	0.3	
Delay (s)		16.3						8.9		4.2	2.4	
Level of Service		B						A		A	A	
Approach Delay (s)		16.3			0.0			8.9			3.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.57										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		82.0%						ICU Level of Service		E		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	9	322	44	398	368	0	0	216	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.62	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1161	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	322	44	398	368	0	0	216	425
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	322	11	398	368	0	0	216	425
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	670	1076			1076	1583
v/s Ratio Prot				0.01	c0.17			0.20			0.12	
v/s Ratio Perm						0.01	c0.34					0.27
v/c Ratio				0.02	0.71	0.03	0.59	0.34			0.20	0.27
Uniform Delay, d1				12.9	15.5	12.9	6.1	5.0			4.5	0.0
Progression Factor				0.70	0.69	0.64	0.62	0.67			1.05	1.00
Incremental Delay, d2				0.1	8.8	0.1	3.2	0.7			0.4	0.4
Delay (s)				9.1	19.4	8.5	7.0	4.1			5.2	0.4
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			17.9			5.6			2.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.9									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			82.0%									ICU Level of Service E
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	839	415	0	0	0	0	234	108	30	281	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4708	1362					1783			1854	
Flt Permitted		1.00	1.00					1.00			0.95	
Satd. Flow (perm)		4708	1362					1783			1764	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	839	415	0	0	0	0	234	108	30	281	0
RTOR Reduction (vph)	0	38	155	0	0	0	0	37	0	0	0	0
Lane Group Flow (vph)	0	958	135	0	0	0	0	305	0	0	311	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2197	635					633			627	
v/s Ratio Prot		c0.20						0.17				
v/s Ratio Perm			0.10								c0.18	
v/c Ratio		0.44	0.21					0.48			0.50	
Uniform Delay, d1		8.0	7.1					11.3			11.3	
Progression Factor		1.00	1.00					1.01			1.00	
Incremental Delay, d2		0.6	0.8					2.5			2.8	
Delay (s)		8.7	7.9					13.9			14.1	
Level of Service		A	A					B			B	
Approach Delay (s)		8.5			0.0			13.9			14.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			10.4					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			65.3%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↗↑	
Volume (vph)	0	539	26	0	0	0	0	0	0	747	132	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3269	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3269	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	539	26	0	0	0	0	0	0	747	132	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	74	74	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	299	432	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1563	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.19	0.13	
v/c Ratio		0.32								0.39	0.28	
Uniform Delay, d1		11.0								7.7	7.2	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								1.5	0.4	
Delay (s)		11.5								9.2	7.7	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			8.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.5			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		34.6%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  					  		
Volume (vph)	0	0	0	15	173	0	0	0	0	0	915	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0					4.0		
Lane Util. Factor					0.91					0.91		
Frt					1.00					0.97		
Flt Protected					1.00					1.00		
Satd. Flow (prot)					5065					4957		
Flt Permitted					1.00					1.00		
Satd. Flow (perm)					5065					4957		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	15	173	0	0	0	0	0	915	185
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	68	0
Lane Group Flow (vph)	0	0	0	0	172	0	0	0	0	0	1032	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0					22.0		
Effective Green, g (s)					15.0					22.0		
Actuated g/C Ratio					0.33					0.49		
Clearance Time (s)					4.0					4.0		
Lane Grp Cap (vph)					1688					2423		
v/s Ratio Prot					c0.03					c0.21		
v/s Ratio Perm												
v/c Ratio					0.10					0.43		
Uniform Delay, d1					10.4					7.4		
Progression Factor					0.92					0.59		
Incremental Delay, d2					0.1					0.5		
Delay (s)					9.7					4.9		
Level of Service					A					A		
Approach Delay (s)	0.0				9.7			0.0			4.9	
Approach LOS	A				A			A			A	
Intersection Summary												
HCM 2000 Control Delay	5.6			HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio	0.29											
Actuated Cycle Length (s)	45.0			Sum of lost time (s)					8.0			
Intersection Capacity Utilization	34.6%			ICU Level of Service					A			
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	777	254	0	0	0	0	0	0	242	729	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.96									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6171									5023	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6171									5023	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	777	254	0	0	0	0	0	0	242	729	0
RTOR Reduction (vph)	0	90	0	0	0	0	0	0	0	0	31	0
Lane Group Flow (vph)	0	941	0	0	0	0	0	0	0	0	940	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2194									2344	
v/s Ratio Prot		c0.15										
v/s Ratio Perm											0.19	
v/c Ratio		0.43									0.40	
Uniform Delay, d1		11.0									7.9	
Progression Factor		0.51									1.00	
Incremental Delay, d2		0.6									0.5	
Delay (s)		6.2									8.4	
Level of Service		A									A	
Approach Delay (s)		6.2			0.0			0.0			8.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		7.3			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		41.2%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	235	0	113	5	0	1	132	241	0	0	228	198
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	235	0	113	5	0	1	132	241	0	0	228	198
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	712	832	213	732	931	120	426				241	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	712	832	213	732	931	120	426				241	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	19	100	86	98	100	100	88				100	
cM capacity (veh/h)	290	268	792	241	234	908	1130				1323	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	235	113	132	120	120	152	274					
Volume Left	235	0	132	0	0	0	0					
Volume Right	0	113	0	0	0	0	198					
cSH	290	792	1130	1700	1700	1700	1700					
Volume to Capacity	0.81	0.14	0.12	0.07	0.07	0.09	0.16					
Queue Length 95th (ft)	164	12	10	0	0	0	0					
Control Delay (s)	54.2	10.3	8.6	0.0	0.0	0.0	0.0					
Lane LOS	F	B	A									
Approach Delay (s)	39.9			3.0	0.0							
Approach LOS	E											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	↑	↑	↑
Volume (vph)	141	77	49	466	314	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1718		1770	1863	1863	1583
Flt Permitted	0.97		0.52	1.00	1.00	1.00
Satd. Flow (perm)	1718		961	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	141	77	49	466	314	53
RTOR Reduction (vph)	44	0	0	0	0	32
Lane Group Flow (vph)	174	0	49	466	314	21
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	725		384	745	745	633
v/s Ratio Prot	c0.10			c0.25	0.17	
v/s Ratio Perm			0.05			0.01
v/c Ratio	0.24		0.13	0.63	0.42	0.03
Uniform Delay, d1	8.4		8.5	10.8	9.7	8.2
Progression Factor	1.00		1.00	1.00	0.79	1.22
Incremental Delay, d2	0.8		0.7	3.9	1.6	0.1
Delay (s)	9.1		9.2	14.7	9.3	10.1
Level of Service	A		A	B	A	B
Approach Delay (s)	9.1			14.2	9.4	
Approach LOS	A			B	A	

Intersection Summary

HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	854	118	0	0	0	0	464	269	4	241	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.94			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4965						3344			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4965						3344			1840	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	854	118	0	0	0	0	464	269	4	241	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	72	0	0	0	0
Lane Group Flow (vph)	0	1149	0	0	0	0	0	661	0	0	245	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1114			613	
v/s Ratio Prot		c0.23						c0.20				
v/s Ratio Perm											0.13	
v/c Ratio		0.47						0.59			0.40	
Uniform Delay, d1		7.6						12.5			11.5	
Progression Factor		1.00						1.51			1.28	
Incremental Delay, d2		0.7						2.1			1.9	
Delay (s)		8.3						20.9			16.7	
Level of Service		A						C			B	
Approach Delay (s)		8.3			0.0			20.9			16.7	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		13.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		51.4%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	217	80	478	134	550	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3105	1441		3505				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3105	1441		3505				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	217	80	478	134	550	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	63	63	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	463	186	0	684	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1518	704		1168				
v/s Ratio Prot					c0.15			c0.20				
v/s Ratio Perm						0.13						
v/c Ratio					0.31	0.26		0.59				
Uniform Delay, d1					6.9	6.8		12.4				
Progression Factor					1.00	1.00		0.78				
Incremental Delay, d2					0.5	0.9		1.8				
Delay (s)					7.4	7.7		11.5				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.5			11.5			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.4				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			45.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	758	0	0	0	0	0	908	176	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6365						4961				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6365						4961				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	758	0	0	0	0	0	908	176	0	0	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	61	0	0	0	0
Lane Group Flow (vph)	0	846	0	0	0	0	0	1023	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2687						1984				
v/s Ratio Prot								c0.21				
v/s Ratio Perm		0.13										
v/c Ratio		0.31						0.52				
Uniform Delay, d1		8.7						10.2				
Progression Factor		1.01						0.77				
Incremental Delay, d2		0.3						0.9				
Delay (s)		9.1						8.7				
Level of Service		A						A				
Approach Delay (s)		9.1			0.0			8.7			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.9						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		68.1%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	44	332	5	1	252	309	9	1	3	340	2	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	44	332	5	1	252	309	9	1	3	340	2	46
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	381	253	309	13	388							
Volume Left (vph)	44	1	0	9	340							
Volume Right (vph)	5	0	309	3	46							
Hadj (s)	0.05	0.04	-0.67	0.03	0.14							
Departure Headway (s)	6.3	6.6	5.9	7.6	6.4							
Degree Utilization, x	0.67	0.47	0.51	0.03	0.69							
Capacity (veh/h)	381	520	588	378	388							
Control Delay (s)	20.9	14.1	13.7	10.8	22.7							
Approach Delay (s)	20.9	13.9		10.8	22.7							
Approach LOS	C	B		B	C							
Intersection Summary												
Delay			18.4									
Level of Service			C									
Intersection Capacity Utilization			70.7%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	160	44	57	200	39	31	493	45	87	787	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	174	48	62	217	42	34	536	49	95	855	175
RTOR Reduction (vph)	0	0	37	0	17	0	0	6	0	0	0	152
Lane Group Flow (vph)	195	174	11	62	242	0	34	579	0	95	855	23
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Effective Green, g (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Actuated g/C Ratio	0.13	0.23	0.23	0.07	0.17		0.04	0.37		0.10	0.43	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	450	814	364	125	585		72	1288		185	1529	207
v/s Ratio Prot	c0.06	0.05		0.04	c0.07		0.02	0.17		c0.05	c0.24	0.01
v/s Ratio Perm			0.01									
v/c Ratio	0.43	0.21	0.03	0.50	0.41		0.47	0.45		0.51	0.56	0.11
Uniform Delay, d1	28.3	22.1	21.1	31.7	26.3		33.2	16.9		30.0	15.1	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	3.1	0.5		4.8	1.1		2.4	1.5	0.2
Delay (s)	29.0	22.2	21.2	34.8	26.7		38.0	18.1		32.4	16.5	27.3
Level of Service	C	C	C	C	C		D	B		C	B	C
Approach Delay (s)		25.3			28.3			19.1			19.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			21.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			70.8			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			50.3%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	141	99	50	134	95	84	553	38	125	1101	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	153	108	54	146	103	91	601	41	136	1197	125
RTOR Reduction (vph)	0	87	0	0	88	0	0	0	25	0	0	61
Lane Group Flow (vph)	110	174	0	54	161	0	91	601	16	136	1197	64
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Effective Green, g (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Actuated g/C Ratio	0.12	0.19		0.07	0.15		0.09	0.39	0.39	0.10	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	635		125	481		296	1392	622	333	1430	640
v/s Ratio Prot	c0.06	c0.05		0.03	0.05		0.03	0.17		c0.04	c0.34	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.53	0.27		0.43	0.33		0.31	0.43	0.03	0.41	0.84	0.10
Uniform Delay, d1	26.9	22.4		28.8	24.9		27.8	14.4	12.0	27.5	17.4	12.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2		2.4	0.4		0.6	1.0	0.1	0.8	6.0	0.3
Delay (s)	29.5	22.6		31.2	25.3		28.4	15.3	12.1	28.3	23.4	12.3
Level of Service	C	C		C	C		C	B	B	C	C	B
Approach Delay (s)		24.6			26.4			16.8			22.9	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.9				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			64.8				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			59.4%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Commercial Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	27	17	201	41	43	21	5	31	90	93
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	27	17	201	41	43	21	5	31	90	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	242			101			408	412	50	356	404	121
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	242			101			408	412	50	356	404	121
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			89	96	100	94	83	90
cM capacity (veh/h)	1322			1489			401	513	1007	542	518	908
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	64	118	142	69	31	60	123				
Volume Left	24	0	17	0	43	31	0	0				
Volume Right	0	27	0	41	5	0	0	93				
cSH	1322	1700	1489	1700	451	542	518	767				
Volume to Capacity	0.02	0.04	0.01	0.08	0.15	0.06	0.12	0.16				
Queue Length 95th (ft)	1	0	1	0	13	5	10	14				
Control Delay (s)	3.1	0.0	1.2	0.0	14.4	12.1	12.9	10.6				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.5		0.5		14.4	11.4						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.7									
Intersection Capacity Utilization			33.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	559	36	0	0	0	0	78	19	52	197	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5036						3435		1770	5085	
Flt Permitted		1.00						1.00		0.69	1.00	
Satd. Flow (perm)		5036						3435		1287	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	559	36	0	0	0	0	78	19	52	197	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	0	596	0	0	0	0	0	84	0	52	197	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2887						1099		411	1627	
v/s Ratio Prot								0.02			0.04	
v/s Ratio Perm		0.12								c0.04		
v/c Ratio		0.21						0.08		0.13	0.12	
Uniform Delay, d1		7.7						17.8		18.1	18.0	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						0.1		0.6	0.2	
Delay (s)		7.9						17.9		18.7	18.2	
Level of Service		A						B		B	B	
Approach Delay (s)		7.9			0.0			17.9			18.3	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.18										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		28.5%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	103	270	258	9	22	69	0	0	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.96
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3491	1583		1770	3539			4902
Flt Permitted					0.99	1.00		0.63	1.00			1.00
Satd. Flow (perm)					3491	1583		1172	3539			4902
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	103	270	258	9	22	69	0	0	142
RTOR Reduction (vph)	0	0	0	0	0	98	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	0	373	160	0	31	69	0	0	156
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2164	981		351	1061			1470
v/s Ratio Prot									0.02			c0.03
v/s Ratio Perm					0.11	0.10		0.03				
v/c Ratio					0.17	0.16		0.09	0.07			0.11
Uniform Delay, d1					8.1	8.0		25.2	25.0			25.3
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.2	0.4		0.5	0.1			0.1
Delay (s)					8.3	8.4		25.7	25.1			25.4
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.3				25.3			25.4
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			13.7				HCM 2000 Level of Service		B			
HCM 2000 Volume to Capacity ratio			0.15									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			28.5%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

3: Market Street & 6th Street

↑↑ Lane Configurations

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	268	36	44	581	36	139	148	14	40	83	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4995		1770	5041		1770	3493		1770	4723	
Flt Permitted	0.33	1.00		0.56	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	609	4995		1042	5041		1770	3493		1770	4723	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	268	36	44	581	36	139	148	14	40	83	75
RTOR Reduction (vph)	0	22	0	0	9	0	0	8	0	0	66	0
Lane Group Flow (vph)	42	282	0	44	608	0	139	154	0	40	92	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	167	1373		286	1386		796	1571		221	590	
v/s Ratio Prot		0.06			c0.12		c0.08	0.04		c0.02	0.02	
v/s Ratio Perm	0.07			0.04								
v/c Ratio	0.25	0.21		0.15	0.44		0.17	0.10		0.18	0.16	
Uniform Delay, d1	22.6	22.3		22.0	23.9		13.1	12.7		31.3	31.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.6	0.3		1.1	1.0		0.5	0.1		1.8	0.6	
Delay (s)	26.2	22.6		23.1	24.9		13.6	12.8		33.1	31.8	
Level of Service	C	C		C	C		B	B		C	C	
Approach Delay (s)		23.1			24.8			13.2			32.1	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			23.0			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			39.7%			ICU Level of Service			A			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	139	772	410	27	79	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6030	5038		3288	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6030	5038		3288	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	772	410	27	79	59
RTOR Reduction (vph)	90	53	10	0	0	0
Lane Group Flow (vph)	35	733	427	0	138	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1688	1410		920	
v/s Ratio Prot	0.02	c0.12	c0.08		c0.04	
v/s Ratio Perm						
v/c Ratio	0.09	0.43	0.30		0.15	
Uniform Delay, d1	19.9	22.1	21.2		20.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.8	0.6		0.3	
Delay (s)	20.4	22.9	21.8		20.6	
Level of Service	C	C	C		C	
Approach Delay (s)		22.6	21.8		20.6	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			22.2		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.30			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			33.8%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑	↑	↑↑↑				
Volume (vph)	0	0	0	0	177	214	37	488	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3216	1441	1433	6033				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3216	1441	1433	6033				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	177	214	37	488	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	61	81	15	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	208	41	18	485	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1072	480	802	3378				
v/s Ratio Prot					c0.06							
v/s Ratio Perm						0.03	0.01	0.08				
v/c Ratio					0.19	0.08	0.02	0.14				
Uniform Delay, d1					17.8	17.2	7.4	7.9				
Progression Factor					1.00	1.00	0.30	0.44				
Incremental Delay, d2					0.4	0.3	0.1	0.1				
Delay (s)					18.2	17.5	2.2	3.6				
Level of Service					B	B	A	A				
Approach Delay (s)		0.0			18.0			3.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.7		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			22.6%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	93	79	7	96	87	10	39	0	78	98	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	93	79	7	96	87	10	39	0	78	98	13
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	179	190	30	20	127	62						
Volume Left (vph)	7	7	10	0	78	0						
Volume Right (vph)	79	87	0	0	0	13						
Hadj (s)	-0.22	-0.23	0.20	0.03	0.34	-0.11						
Departure Headway (s)	4.5	4.5	5.8	5.7	5.8	5.3						
Degree Utilization, x	0.23	0.24	0.05	0.03	0.20	0.09						
Capacity (veh/h)	745	751	569	583	585	635						
Control Delay (s)	8.9	8.9	7.9	7.6	9.1	7.7						
Approach Delay (s)	8.9	8.9	7.8		8.6							
Approach LOS	A	A	A		A							
Intersection Summary												
Delay			8.7									
Level of Service			A									
Intersection Capacity Utilization			30.9%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	4	4	9	29	34	4	123	8	32	209	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	4	4	9	29	34	4	123	8	32	209	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	398	420	112	310	423	66	224			131		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	398	420	112	310	423	66	224			131		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	94	97	100			98		
cM capacity (veh/h)	486	510	920	602	508	985	1342			1452		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	17	72	66	70	136	120						
Volume Left	9	9	4	0	32	0						
Volume Right	4	34	0	8	0	15						
cSH	553	676	1342	1700	1452	1700						
Volume to Capacity	0.03	0.11	0.00	0.04	0.02	0.07						
Queue Length 95th (ft)	2	9	0	0	2	0						
Control Delay (s)	11.7	11.0	0.5	0.0	1.9	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.7	11.0	0.2		1.0							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			25.1%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	4	45	41	18	130	9	40	223	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.94			0.99			0.97	
Flt Protected		0.98			1.00			0.99			0.99	
Satd. Flow (prot)		1774			1744			3489			3413	
Flt Permitted		0.90			0.99			0.91			0.91	
Satd. Flow (perm)		1618			1734			3209			3135	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	4	45	41	18	130	9	40	223	65
RTOR Reduction (vph)	0	14	0	0	28	0	0	4	0	0	31	0
Lane Group Flow (vph)	0	79	0	0	62	0	0	153	0	0	297	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		529			567			1692			1653	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.04			0.05			c0.09	
v/c Ratio		0.15			0.11			0.09			0.18	
Uniform Delay, d1		13.1			12.9			6.5			6.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.4			0.1			0.2	
Delay (s)		13.7			13.3			6.6			7.0	
Level of Service		B			B			A			A	
Approach Delay (s)		13.7			13.3			6.6			7.0	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.7			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.17										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		35.6%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	705	136	75	0	0	0	0	138	234	422	342	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	136	75	0	0	0	0	138	234	422	342	0
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	168	0	0	0
Lane Group Flow (vph)	352	489	21	0	0	0	0	138	66	422	342	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	916	443					990	443	961	521	
v/s Ratio Prot	c0.22	0.15	0.01					0.04	c0.04	0.12	c0.18	
v/s Ratio Perm												
v/c Ratio	0.78	0.53	0.05					0.14	0.15	0.44	0.66	
Uniform Delay, d1	24.9	22.9	19.7					20.2	20.3	22.2	23.8	
Progression Factor	0.87	0.85	0.74					1.00	1.00	1.18	1.16	
Incremental Delay, d2	12.7	2.2	0.2					0.3	0.7	1.3	5.6	
Delay (s)	34.2	21.7	14.8					20.5	21.0	27.4	33.2	
Level of Service	C	C	B					C	C	C	C	
Approach Delay (s)		26.0			0.0			20.8			30.0	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			26.5		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			68.5%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	430	198	661	22	147	0	0	365	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.91	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3072	1441	1770	3539			5003	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3072	1441	1770	3539			5003	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	430	198	661	22	147	0	0	365	44
RTOR Reduction (vph)	0	0	0	0	225	224	0	0	0	0	20	0
Lane Group Flow (vph)	0	0	0	430	304	106	22	147	0	0	389	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	983	461	212	2029			2001	
v/s Ratio Prot				c0.24	0.10	0.07	c0.01	0.04			c0.08	
v/s Ratio Perm												
v/c Ratio				0.76	0.31	0.23	0.10	0.07			0.19	
Uniform Delay, d1				22.9	19.2	18.7	29.4	7.1			14.6	
Progression Factor				1.00	1.00	1.00	0.62	0.16			1.00	
Incremental Delay, d2				9.3	0.8	1.2	0.8	0.1			0.2	
Delay (s)				32.2	20.1	19.9	19.0	1.2			14.9	
Level of Service				C	C	B	B	A			B	
Approach Delay (s)		0.0			24.1			3.5			14.9	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			20.2									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 12.0
Intersection Capacity Utilization			68.5%									ICU Level of Service C
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	525	112	0	0	0	0	418	80	82	436	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		6225						3454		1770	3539	
Flt Permitted		1.00						1.00		0.34	1.00	
Satd. Flow (perm)		6225						3454		626	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	525	112	0	0	0	0	418	80	82	436	0
RTOR Reduction (vph)	0	57	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	650	0	0	0	0	0	471	0	82	436	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		20.0						20.0		32.0	32.0	
Effective Green, g (s)		20.0						20.0		32.0	32.0	
Actuated g/C Ratio		0.33						0.33		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2075						1151		486	1887	
v/s Ratio Prot		c0.10						c0.14		0.02	c0.12	
v/s Ratio Perm										0.07		
v/c Ratio		0.31						0.41		0.17	0.23	
Uniform Delay, d1		14.9						15.4		7.3	7.5	
Progression Factor		1.00						1.00		0.84	0.75	
Incremental Delay, d2		0.4						1.1		0.7	0.3	
Delay (s)		15.3						16.5		6.9	5.9	
Level of Service		B						B		A	A	
Approach Delay (s)		15.3			0.0			16.5			6.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		39.2%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	94	296	63	94	370	0	0	408	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4928		1770	3539			5025	
Flt Permitted					0.99		0.41	1.00			1.00	
Satd. Flow (perm)					4928		754	3539			5025	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	94	296	63	94	370	0	0	408	35
RTOR Reduction (vph)	0	0	0	0	37	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	416	0	94	370	0	0	426	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1642		537	1887			1675	
v/s Ratio Prot					c0.08		0.02	c0.10			c0.08	
v/s Ratio Perm							0.07					
v/c Ratio					0.25		0.18	0.20			0.25	
Uniform Delay, d1					14.6		7.0	7.3			14.6	
Progression Factor					1.00		0.61	0.59			1.82	
Incremental Delay, d2					0.4		0.7	0.2			0.3	
Delay (s)					14.9		5.0	4.5			26.9	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			14.9			4.6			26.9	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.3				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.25									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			39.2%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	273	86	1	268	91	0	358	26	0	500	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3412			3405			3503			3472	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		3253			3250			3503			3472	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	273	86	1	268	91	0	358	26	0	500	73
RTOR Reduction (vph)	0	47	0	0	50	0	0	9	0	0	19	0
Lane Group Flow (vph)	0	315	0	0	310	0	0	375	0	0	554	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1463			1462			1459			1446	
v/s Ratio Prot								0.11			c0.16	
v/s Ratio Perm		c0.10			0.10							
v/c Ratio		0.22			0.21			0.26			0.38	
Uniform Delay, d1		10.0			10.0			11.4			12.1	
Progression Factor		1.00			1.00			1.91			1.00	
Incremental Delay, d2		0.3			0.3			0.4			0.8	
Delay (s)		10.4			10.4			22.2			12.9	
Level of Service		B			B			C			B	
Approach Delay (s)		10.4			10.4			22.2			12.9	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.30										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		35.3%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	12	52	0	0	0	0	12	18	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	12	52	0	0	0	0	12	18	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	52			41			128	110	34	110	117	52
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52			41			128	110	34	110	117	52
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	98	99
cM capacity (veh/h)	1554			1568			816	775	1040	864	767	1016
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	64	21	19								
Volume Left	0	12	12	0								
Volume Right	15	0	0	10								
cSH	1700	1568	820	881								
Volume to Capacity	0.02	0.01	0.03	0.02								
Queue Length 95th (ft)	0	1	2	2								
Control Delay (s)	0.0	1.4	9.5	9.2								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.4									
Approach LOS			A									
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			20.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	27	13	20	30	0	0	0	0	6	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	27	13	20	30	0	0	0	0	6	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	30			40			107	104	34	104	110	30
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	30			40			107	104	34	104	110	30
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1583			1570			859	777	1040	868	770	1044
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	40	50	8	4								
Volume Left	0	20	6	0								
Volume Right	13	0	0	2								
cSH	1700	1570	847	906								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	3.0	9.3	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	3.0	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			19.4%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	51	151	130	45	87	127
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	51	151	130	45	87	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		272	102	253	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		272	102	253	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		75	94	86	88
cM capacity (veh/h)	1623		524	763	630	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	51	151	175	87	127	
Volume Left	51	0	130	0	0	
Volume Right	0	151	0	0	127	
cSH	1623	1700	570	630	1085	
Volume to Capacity	0.03	0.09	0.31	0.14	0.12	
Queue Length 95th (ft)	2	0	32	12	10	
Control Delay (s)	7.3	0.0	14.1	11.6	8.8	
Lane LOS	A		B	B	A	
Approach Delay (s)	1.8		14.1	9.9		
Approach LOS			B	A		
Intersection Summary						
Average Delay			8.4			
Intersection Capacity Utilization			26.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	214	0	0	0	0	0	536	1207	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5037						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5037						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	214	0	0	0	0	0	536	1207	0	0	0
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	473	0	0	0
Lane Group Flow (vph)	0	232	0	0	0	0	0	536	734	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1790						2373	1300			
v/s Ratio Prot								0.11				
v/s Ratio Perm		0.05							c0.26			
v/c Ratio		0.13						0.23	0.56			
Uniform Delay, d1		9.8						7.2	8.7			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.2	1.8			
Delay (s)		9.9						7.4	10.5			
Level of Service		A						A	B			
Approach Delay (s)		9.9			0.0			9.5			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.6						HCM 2000 Level of Service	A			
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		87.9%						ICU Level of Service	E			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	366	441	0	0	0	0	194	33	66	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4713						1826		1770	1863	
Flt Permitted		0.99						1.00		0.62	1.00	
Satd. Flow (perm)		4713						1826		1149	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	260	366	441	0	0	0	0	194	33	66	99	0
RTOR Reduction (vph)	0	282	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	785	0	0	0	0	0	213	0	66	99	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1361						973		612	993	
v/s Ratio Prot								c0.12			0.05	
v/s Ratio Perm		0.17								0.06		
v/c Ratio		0.58						0.22		0.11	0.10	
Uniform Delay, d1		13.7						5.5		5.2	5.2	
Progression Factor		1.00						1.00		0.33	0.34	
Incremental Delay, d2		1.8						0.5		0.4	0.2	
Delay (s)		15.4						6.1		2.1	1.9	
Level of Service		B						A		A	A	
Approach Delay (s)		15.4			0.0			6.1			2.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		61.9%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	279	50	256	238	0	0	188	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.64	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1191	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	279	50	256	238	0	0	188	1262
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	279	12	256	238	0	0	188	1262
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	688	1076			1076	1583
v/s Ratio Prot				0.00	0.15			0.13			0.10	
v/s Ratio Perm						0.01	0.22					c0.80
v/c Ratio				0.00	0.61	0.03	0.37	0.22			0.17	0.80
Uniform Delay, d1				12.9	15.1	12.9	5.1	4.6			4.5	0.0
Progression Factor				0.73	0.71	0.70	1.06	1.03			1.53	1.00
Incremental Delay, d2				0.0	6.0	0.1	1.4	0.4			0.3	3.8
Delay (s)				9.4	16.7	9.3	6.8	5.2			7.1	3.8
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			15.5			6.0			4.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.2									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			61.9%									ICU Level of Service B
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	442	1123	0	0	0	0	265	67	20	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4408	1362					1812			1856	
Flt Permitted		1.00	1.00					1.00			0.96	
Satd. Flow (perm)		4408	1362					1812			1797	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	442	1123	0	0	0	0	265	67	20	255	0
RTOR Reduction (vph)	0	230	230	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	806	331	0	0	0	0	312	0	0	275	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2057	635					644			638	
v/s Ratio Prot		0.18						c0.17				
v/s Ratio Perm			c0.24								0.15	
v/c Ratio		0.39	0.52					0.48			0.43	
Uniform Delay, d1		7.8	8.5					11.3			11.0	
Progression Factor		1.00	1.00					0.61			1.00	
Incremental Delay, d2		0.6	3.0					2.6			2.1	
Delay (s)		8.4	11.5					9.5			13.2	
Level of Service		A	B					A			B	
Approach Delay (s)		9.5			0.0			9.5			13.2	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			9.9					HCM 2000 Level of Service			A	
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			67.6%					ICU Level of Service			C	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↗↑	
Volume (vph)	0	416	17	0	0	0	0	0	0	548	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5055								1610	3282	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5055								1610	3282	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	17	0	0	0	0	0	0	548	142	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	119	119	0
Lane Group Flow (vph)	0	424	0	0	0	0	0	0	0	155	297	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1569	
v/s Ratio Prot		c0.08										
v/s Ratio Perm										c0.10	0.09	
v/c Ratio		0.24								0.20	0.19	
Uniform Delay, d1		10.7								6.9	6.9	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.3								0.6	0.3	
Delay (s)		11.0								7.5	7.2	
Level of Service		B								A	A	
Approach Delay (s)		11.0			0.0			0.0			7.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.7									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			46.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			28.3%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	31	164	0	0	0	0	0	654	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5045						4900	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5045						4900	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	31	164	0	0	0	0	0	654	210
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	174	0	0	0	0	0	757	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1681						2395	
v/s Ratio Prot					c0.03						c0.15	
v/s Ratio Perm												
v/c Ratio					0.10						0.32	
Uniform Delay, d1					10.4						7.0	
Progression Factor					1.12						0.57	
Incremental Delay, d2					0.1						0.3	
Delay (s)					11.7						4.3	
Level of Service					B						A	
Approach Delay (s)		0.0			11.7			0.0			4.3	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			28.3%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	331	193	0	0	0	0	0	0	121	622	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6054									5044	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6054									5044	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	331	193	0	0	0	0	0	0	121	622	0
RTOR Reduction (vph)	0	122	0	0	0	0	0	0	0	0	64	0
Lane Group Flow (vph)	0	402	0	0	0	0	0	0	0	0	679	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2152									2353	
v/s Ratio Prot		c0.07										
v/s Ratio Perm											0.13	
v/c Ratio		0.19									0.29	
Uniform Delay, d1		10.0									7.4	
Progression Factor		0.61									1.00	
Incremental Delay, d2		0.2									0.3	
Delay (s)		6.3									7.7	
Level of Service		A									A	
Approach Delay (s)		6.3			0.0			0.0			7.7	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.1				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			29.2%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	134	0	71	2	0	0	179	227	0	0	201	164
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	134	0	71	2	0	0	179	227	0	0	201	164
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	754	868	182	756	950	114	365				227	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	754	868	182	756	950	114	365				227	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	49	100	91	99	100	100	85				100	
cM capacity (veh/h)	263	246	829	240	220	918	1190				1339	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	134	71	179	114	114	134	231					
Volume Left	134	0	179	0	0	0	0					
Volume Right	0	71	0	0	0	0	164					
cSH	263	829	1190	1700	1700	1700	1700					
Volume to Capacity	0.51	0.09	0.15	0.07	0.07	0.08	0.14					
Queue Length 95th (ft)	67	7	13	0	0	0	0					
Control Delay (s)	32.0	9.8	8.6	0.0	0.0	0.0	0.0					
Lane LOS	D	A	A									
Approach Delay (s)	24.3	3.8		0.0								
Approach LOS	C											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	49	65	58	322	314	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1683		1770	1863	1863	1583
Flt Permitted	0.98		0.52	1.00	1.00	1.00
Satd. Flow (perm)	1683		961	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	49	65	58	322	314	60
RTOR Reduction (vph)	38	0	0	0	0	36
Lane Group Flow (vph)	76	0	58	322	314	24
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	710		384	745	745	633
v/s Ratio Prot	c0.05			c0.17	0.17	
v/s Ratio Perm			0.06			0.02
v/c Ratio	0.11		0.15	0.43	0.42	0.04
Uniform Delay, d1	7.9		8.6	9.8	9.7	8.2
Progression Factor	1.00		1.00	1.00	0.77	0.99
Incremental Delay, d2	0.3		0.8	1.8	1.7	0.1
Delay (s)	8.2		9.5	11.6	9.2	8.2
Level of Service	A		A	B	A	A
Approach Delay (s)	8.2			11.3	9.0	
Approach LOS	A			B	A	

Intersection Summary

HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	555	126	0	0	0	0	247	122	2	202	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Flt		0.98						0.95			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3364			1862	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		4919						3364			1856	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	555	126	0	0	0	0	247	122	2	202	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	81	0	0	0	0
Lane Group Flow (vph)	0	850	0	0	0	0	0	288	0	0	204	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1121			618	
v/s Ratio Prot		c0.17						0.09				
v/s Ratio Perm											c0.11	
v/c Ratio		0.35						0.26			0.33	
Uniform Delay, d1		7.1						10.9			11.2	
Progression Factor		1.00						1.89			1.22	
Incremental Delay, d2		0.4						0.5			1.4	
Delay (s)		7.5						21.1			15.1	
Level of Service		A						C			B	
Approach Delay (s)		7.5			0.0			21.1			15.1	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		12.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		36.9%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	185	66	567	116	377	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.92	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3067	1441		3498				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3067	1441		3498				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	185	66	567	116	377	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	128	128	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	407	155	0	493	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1499	704		1166				
v/s Ratio Prot					c0.13			c0.14				
v/s Ratio Perm						0.11						
v/c Ratio					0.27	0.22		0.42				
Uniform Delay, d1					6.8	6.6		11.6				
Progression Factor					1.00	1.00		1.04				
Incremental Delay, d2					0.4	0.7		1.1				
Delay (s)					7.2	7.3		13.1				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.3			13.1			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			43.9%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	324	0	0	0	0	0	843	84	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6343						5016				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6343						5016				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	324	0	0	0	0	0	843	84	0	0	0
RTOR Reduction (vph)	0	38	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	370	0	0	0	0	0	901	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2678						2006				
v/s Ratio Prot								c0.18				
v/s Ratio Perm		0.06										
v/c Ratio		0.14						0.45				
Uniform Delay, d1		8.0						9.9				
Progression Factor		0.93						0.70				
Incremental Delay, d2		0.1						0.7				
Delay (s)		7.5						7.6				
Level of Service		A						A				
Approach Delay (s)		7.5			0.0			7.6			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		7.6			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		65.2%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	226	4	4	279	190	7	2	2	267	4	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	226	4	4	279	190	7	2	2	267	4	103
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	251	283	190	11	374							
Volume Left (vph)	21	4	0	7	267							
Volume Right (vph)	4	0	190	2	103							
Hadj (s)	0.04	0.04	-0.67	0.05	0.01							
Departure Headway (s)	5.9	6.1	5.4	6.7	5.7							
Degree Utilization, x	0.41	0.48	0.29	0.02	0.60							
Capacity (veh/h)	572	563	634	442	596							
Control Delay (s)	13.0	13.5	9.4	9.8	16.8							
Approach Delay (s)	13.0	11.8		9.8	16.8							
Approach LOS	B	B		A	C							
Intersection Summary												
Delay			13.8									
Level of Service			B									
Intersection Capacity Utilization			62.5%	ICU Level of Service		B						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	197	69	23	202	64	75	840	36	40	432	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	214	75	25	220	70	82	913	39	43	470	255
RTOR Reduction (vph)	0	0	52	0	33	0	0	2	0	0	0	215
Lane Group Flow (vph)	299	214	23	25	257	0	82	950	0	43	470	40
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Effective Green, g (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Actuated g/C Ratio	0.16	0.30	0.30	0.04	0.18		0.10	0.38		0.06	0.35	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	544	1075	481	64	620		170	1340		108	1224	251
v/s Ratio Prot	c0.09	0.06		0.01	c0.08		c0.05	c0.27		0.02	0.13	0.03
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.20	0.05	0.39	0.41		0.48	0.71		0.40	0.38	0.16
Uniform Delay, d1	28.6	19.0	18.1	34.7	26.7		31.6	19.3		33.3	18.2	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	3.9	0.5		2.2	3.2		2.4	0.9	0.3
Delay (s)	29.7	19.1	18.2	38.6	27.1		33.7	22.5		35.7	19.1	27.1
Level of Service	C	B	B	D	C		C	C		D	B	C
Approach Delay (s)		24.4			28.0			23.4			22.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			23.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			73.7			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			56.5%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	173	76	33	171	82	107	817	42	75	306	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	188	83	36	186	89	116	888	46	82	333	37
RTOR Reduction (vph)	0	50	0	0	62	0	0	0	28	0	0	23
Lane Group Flow (vph)	101	221	0	36	213	0	116	888	18	82	333	14
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Effective Green, g (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Actuated g/C Ratio	0.11	0.24		0.04	0.17		0.09	0.39	0.39	0.08	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	803		77	571		312	1394	623	280	1361	609
v/s Ratio Prot	c0.06	0.07		0.02	c0.06		c0.03	c0.25		0.02	0.09	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.51	0.27		0.47	0.37		0.37	0.64	0.03	0.29	0.24	0.02
Uniform Delay, d1	27.6	20.5		30.8	24.3		28.2	16.2	12.3	28.5	13.8	12.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.2		4.4	0.4		0.7	2.2	0.1	0.6	0.4	0.1
Delay (s)	29.8	20.7		35.2	24.7		29.0	18.4	12.3	29.1	14.2	12.7
Level of Service	C	C		D	C		C	B	B	C	B	B
Approach Delay (s)		23.2			25.9			19.3			16.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.4			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			66.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			51.8%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Commercial Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	273	22	14	124	105	44	132	28	45	57	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	52	273	22	14	124	105	44	132	28	45	57	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	229			295			544	645	148	539	604	114
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	229			295			544	645	148	539	604	114
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			87	64	97	84	85	96
cM capacity (veh/h)	1336			1263			347	370	873	287	391	916
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	188	158	76	167	204	45	38	56				
Volume Left	52	0	14	0	44	45	0	0				
Volume Right	0	22	0	105	28	0	0	37				
cSH	1336	1700	1263	1700	396	287	391	629				
Volume to Capacity	0.04	0.09	0.01	0.10	0.52	0.16	0.10	0.09				
Queue Length 95th (ft)	3	0	1	0	71	14	8	7				
Control Delay (s)	2.4	0.0	1.5	0.0	23.4	19.9	15.2	11.3				
Lane LOS	A		A		C	C	C	B				
Approach Delay (s)	1.3		0.5		23.4	15.1						
Approach LOS					C	C						
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			44.7%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	738	29	0	0	0	0	246	28	103	107	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5054						3485		1770	5085	
Flt Permitted		1.00						1.00		0.57	1.00	
Satd. Flow (perm)		5054						3485		1066	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	738	29	0	0	0	0	246	28	103	107	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	770	0	0	0	0	0	262	0	103	107	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2897						1115		341	1627	
v/s Ratio Prot								0.08			0.02	
v/s Ratio Perm		0.15								c0.10		
v/c Ratio		0.27						0.24		0.30	0.07	
Uniform Delay, d1		8.1						18.8		19.2	17.7	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.2						0.5		2.3	0.1	
Delay (s)		8.3						19.2		21.5	17.8	
Level of Service		A						B		C	B	
Approach Delay (s)		8.3			0.0			19.2			19.6	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		12.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.28										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		38.5%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↑↑	↑		↓	↑↑			↑↑↓
Volume (vph)	0	0	0	30	145	274	12	35	218	0	0	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.97
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	3539			4957
Flt Permitted					0.99	1.00		0.62	1.00			1.00
Satd. Flow (perm)					3509	1583		1154	3539			4957
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	30	145	274	12	35	218	0	0	168
RTOR Reduction (vph)	0	0	0	0	0	104	0	0	0	0	0	24
Lane Group Flow (vph)	0	0	0	0	175	170	0	47	218	0	0	178
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2175	981		346	1061			1487
v/s Ratio Prot									c0.06			0.04
v/s Ratio Perm					0.05	c0.11		0.04				
v/c Ratio					0.08	0.17		0.14	0.21			0.12
Uniform Delay, d1					7.6	8.1		25.5	26.1			25.4
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.1	0.4		0.8	0.4			0.2
Delay (s)					7.7	8.5		26.4	26.5			25.6
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.2				26.5			25.6
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			17.3		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			38.5%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013



Movement	SBR
Left Lane Configurations	
Volume (vph)	34
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	34
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	705	66	36	325	35	215	216	48	53	95	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5020		1770	5011		1770	3443		1770	4790	
Flt Permitted	0.51	1.00		0.24	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	958	5020		448	5011		1770	3443		1770	4790	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	705	66	36	325	35	215	216	48	53	95	60
RTOR Reduction (vph)	0	14	0	0	16	0	0	24	0	0	53	0
Lane Group Flow (vph)	94	757	0	36	344	0	215	240	0	53	103	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	263	1380		123	1378		796	1549		221	598	
v/s Ratio Prot		c0.15			0.07		c0.12	0.07		c0.03	0.02	
v/s Ratio Perm	0.10			0.08								
v/c Ratio	0.36	0.55		0.29	0.25		0.27	0.16		0.24	0.17	
Uniform Delay, d1	23.3	24.8		22.9	22.6		13.8	13.0		31.6	31.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	1.6		5.9	0.4		0.8	0.2		2.6	0.6	
Delay (s)	27.1	26.3		28.8	23.0		14.6	13.2		34.1	31.9	
Level of Service	C	C		C	C		B	B		C	C	
Approach Delay (s)		26.4			23.5			13.8			32.5	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			23.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			47.0%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	158	500	1128	35	61	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6017	5062		3316	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6017	5062		3316	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	500	1128	35	61	33
RTOR Reduction (vph)	91	53	4	0	0	0
Lane Group Flow (vph)	35	479	1159	0	94	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1684	1417		928	
v/s Ratio Prot	0.02	c0.08	c0.23		c0.03	
v/s Ratio Perm						
v/c Ratio	0.09	0.28	0.82		0.10	
Uniform Delay, d1	19.9	21.1	25.2		20.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.4	5.3		0.2	
Delay (s)	20.4	21.5	30.6		20.2	
Level of Service	C	C	C		C	
Approach Delay (s)		21.3	30.6		20.2	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			26.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.40			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			43.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	216	696	29	1450	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3076	1441	1433	6035				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3076	1441	1433	6035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	216	696	29	1450	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	22	22	11	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	542	326	15	1446	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1025	480	802	3379				
v/s Ratio Prot					0.18							
v/s Ratio Perm						c0.23	0.01	0.24				
v/c Ratio					0.53	0.68	0.02	0.43				
Uniform Delay, d1					20.2	21.5	7.3	9.5				
Progression Factor					1.00	1.00	0.02	0.21				
Incremental Delay, d2					2.0	7.5	0.0	0.3				
Delay (s)					22.2	29.1	0.2	2.3				
Level of Service					C	C	A	A				
Approach Delay (s)		0.0			24.8			2.3			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.9		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			55.2%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	139	84	13	134	109	49	238	17	88	126	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	139	84	13	134	109	49	238	17	88	126	20
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	245	256	168	136	151	83						
Volume Left (vph)	22	13	49	0	88	0						
Volume Right (vph)	84	109	0	17	0	20						
Hadj (s)	-0.15	-0.21	0.18	-0.05	0.33	-0.13						
Departure Headway (s)	5.7	5.7	6.6	6.4	6.8	6.4						
Degree Utilization, x	0.39	0.40	0.31	0.24	0.29	0.15						
Capacity (veh/h)	578	587	502	527	486	518						
Control Delay (s)	12.4	12.5	11.3	10.1	11.4	9.3						
Approach Delay (s)	12.4	12.5	10.8	10.6								
Approach LOS	B	B	B	B								
Intersection Summary												
Delay			11.5									
Level of Service			B									
Intersection Capacity Utilization			45.7%	ICU Level of Service				A				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	31	16	17	26	64	18	391	49	53	297	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	40	31	16	17	26	64	18	391	49	53	297	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	728	896	165	738	888	220	330			440		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	728	896	165	738	888	220	330			440		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	88	98	93	90	92	99			95		
cM capacity (veh/h)	252	261	850	261	264	784	1226			1116		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	87	107	214	244	202	182						
Volume Left	40	17	18	0	53	0						
Volume Right	16	64	0	49	0	33						
cSH	294	436	1226	1700	1116	1700						
Volume to Capacity	0.30	0.25	0.01	0.14	0.05	0.11						
Queue Length 95th (ft)	30	24	1	0	4	0						
Control Delay (s)	22.3	15.9	0.8	0.0	2.5	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	22.3	15.9	0.4		1.3							
Approach LOS	C	C										
Intersection Summary												
Average Delay			4.2									
Intersection Capacity Utilization			44.9%			ICU Level of Service			A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	133	28	10	118	117	69	371	12	43	271	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.99			0.94			1.00			0.98	
Flt Protected		0.98			1.00			0.99			0.99	
Satd. Flow (prot)		1801			1739			3498			3432	
Flt Permitted		0.79			0.99			0.85			0.88	
Satd. Flow (perm)		1456			1717			3010			3038	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	133	28	10	118	117	69	371	12	43	271	62
RTOR Reduction (vph)	0	7	0	0	60	0	0	3	0	0	29	0
Lane Group Flow (vph)	0	260	0	0	185	0	0	449	0	0	347	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		476			561			1587			1601	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.11			c0.15			0.11	
v/c Ratio		0.55			0.33			0.28			0.22	
Uniform Delay, d1		15.1			14.0			7.2			6.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.4			1.6			0.4			0.3	
Delay (s)		19.6			15.5			7.7			7.2	
Level of Service		B			B			A			A	
Approach Delay (s)		19.6			15.5			7.7			7.2	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.4			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		65.2%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1007	295	73	0	0	0	0	340	430	591	353	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3287	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3287	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1007	295	73	0	0	0	0	340	430	591	353	0
RTOR Reduction (vph)	0	0	53	0	0	0	0	0	123	0	0	0
Lane Group Flow (vph)	503	799	20	0	0	0	0	340	307	591	353	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	920	443					990	443	961	521	
v/s Ratio Prot	c0.31	0.24	0.01					0.10	c0.19	0.17	c0.19	
v/s Ratio Perm												
v/c Ratio	1.12	1.07dl	0.05					0.34	0.69	0.61	0.68	
Uniform Delay, d1	27.0	25.7	19.7					21.5	24.1	23.5	24.0	
Progression Factor	0.90	0.90	0.74					1.00	1.00	0.81	0.83	
Incremental Delay, d2	78.5	10.8	0.2					0.9	8.6	2.7	6.5	
Delay (s)	102.8	33.9	14.7					22.5	32.7	21.8	26.2	
Level of Service	F	C	B					C	C	C	C	
Approach Delay (s)		58.1			0.0			28.2			23.5	
Approach LOS		E			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			40.0					HCM 2000 Level of Service			D	
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			75.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			94.8%					ICU Level of Service		F		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	269	138	617	85	298	0	0	750	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.90	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3039	1441	1770	3539			5052	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3039	1441	1770	3539			5052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	269	138	617	85	298	0	0	750	34
RTOR Reduction (vph)	0	0	0	0	210	209	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	269	237	99	85	298	0	0	777	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	972	461	212	2029			2020	
v/s Ratio Prot				c0.15	0.08	0.07	c0.05	0.08			c0.15	
v/s Ratio Perm												
v/c Ratio				0.48	0.24	0.21	0.40	0.15			0.38	
Uniform Delay, d1				20.5	18.8	18.6	30.5	7.5			16.0	
Progression Factor				1.00	1.00	1.00	0.89	0.11			1.00	
Incremental Delay, d2				2.8	0.6	1.1	3.0	0.1			0.6	
Delay (s)				23.3	19.4	19.7	30.2	0.9			16.5	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			20.5			7.4			16.5	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			16.8		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			94.8%		ICU Level of Service					F		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	486	191	0	0	0	0	491	80	99	724	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.96						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		6131						3465		1770	3539	
Flt Permitted		0.99						1.00		0.29	1.00	
Satd. Flow (perm)		6131						3465		543	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	486	191	0	0	0	0	491	80	99	724	0
RTOR Reduction (vph)	0	95	0	0	0	0	0	22	0	0	0	0
Lane Group Flow (vph)	0	701	0	0	0	0	0	549	0	99	724	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		20.0						20.0		32.0	32.0	
Effective Green, g (s)		20.0						20.0		32.0	32.0	
Actuated g/C Ratio		0.33						0.33		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2043						1155		453	1887	
v/s Ratio Prot		c0.11						c0.16		0.03	c0.20	
v/s Ratio Perm										0.09		
v/c Ratio		0.34						0.48		0.22	0.38	
Uniform Delay, d1		15.1						15.8		7.5	8.2	
Progression Factor		1.00						1.00		0.81	0.64	
Incremental Delay, d2		0.5						1.4		1.0	0.6	
Delay (s)		15.5						17.2		7.2	5.8	
Level of Service		B						B		A	A	
Approach Delay (s)		15.5			0.0			17.2			6.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.42										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		46.4%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	161	511	94	135	480	0	0	612	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4940		1770	3539			4994	
Flt Permitted					0.99		0.27	1.00			1.00	
Satd. Flow (perm)					4940		508	3539			4994	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	161	511	94	135	480	0	0	612	83
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	736	0	135	480	0	0	666	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1646		439	1887			1664	
v/s Ratio Prot					c0.15		c0.04	0.14			c0.13	
v/s Ratio Perm							0.12					
v/c Ratio					0.45		0.31	0.25			0.40	
Uniform Delay, d1					15.7		7.5	7.6			15.4	
Progression Factor					1.00		1.26	0.63			1.92	
Incremental Delay, d2					0.9		1.6	0.3			0.6	
Delay (s)					16.6		11.1	5.1			30.1	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			16.6			6.4			30.1	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			46.4%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	319	109	3	379	114	2	489	35	0	788	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3404			3416			3503			3479	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		3234			3257			3339			3479	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	319	109	3	379	114	2	489	35	0	788	100
RTOR Reduction (vph)	0	48	0	0	47	0	0	9	0	0	16	0
Lane Group Flow (vph)	0	386	0	0	449	0	0	517	0	0	872	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1455			1465			1391			1449	
v/s Ratio Prot											c0.25	
v/s Ratio Perm		0.12			c0.14			0.15				
v/c Ratio		0.27			0.31			0.37			0.60	
Uniform Delay, d1		10.3			10.5			12.1			13.6	
Progression Factor		1.00			1.00			1.77			1.00	
Incremental Delay, d2		0.4			0.5			0.7			1.9	
Delay (s)		10.7			11.1			22.1			15.5	
Level of Service		B			B			C			B	
Approach Delay (s)		10.7			11.1			22.1			15.5	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		15.2			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		48.3%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	10	35	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	10	35	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			264	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			264	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	95	98
cM capacity (veh/h)	1514			1460			640	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	28	38								
Volume Left	0	18	10	0								
Volume Right	39	0	0	21								
cSH	1700	1460	674	794								
Volume to Capacity	0.07	0.01	0.04	0.05								
Queue Length 95th (ft)	0	1	3	4								
Control Delay (s)	0.0	1.4	10.6	9.8								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.1									
Approach LOS			B									
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	208	12	30	222	0	0	0	0	14	21	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	208	12	30	222	0	0	0	0	14	21	86
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	222			220			592	496	214	496	502	222
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			220			592	496	214	496	502	222
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	95	89
cM capacity (veh/h)	1347			1349			355	465	826	476	461	818
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	220	252	24	96								
Volume Left	0	30	14	0								
Volume Right	12	0	0	86								
cSH	1700	1349	469	754								
Volume to Capacity	0.13	0.02	0.05	0.13								
Queue Length 95th (ft)	0	2	4	11								
Control Delay (s)	0.0	1.1	13.1	10.5								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.1	11.0									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			38.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	179	217	209	120	101	99
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	179	217	209	120	101	99
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		508	358	575	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		508	358	575	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	89		34	76	74	91
cM capacity (veh/h)	1623		316	506	381	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	179	217	329	101	99	
Volume Left	179	0	209	0	0	
Volume Right	0	217	0	0	99	
cSH	1623	1700	366	381	1085	
Volume to Capacity	0.11	0.13	0.90	0.26	0.09	
Queue Length 95th (ft)	9	0	226	26	8	
Control Delay (s)	7.5	0.0	59.0	17.8	8.7	
Lane LOS	A		F	C	A	
Approach Delay (s)	3.4		59.0	13.3		
Approach LOS			F	B		
Intersection Summary						
Average Delay			25.3			
Intersection Capacity Utilization			41.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	394	0	0	0	0	0	512	903	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5040						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5040						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	394	0	0	0	0	0	512	903	0	0	0
RTOR Reduction (vph)	0	55	0	0	0	0	0	0	242	0	0	0
Lane Group Flow (vph)	0	425	0	0	0	0	0	512	661	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1792						2373	1300			
v/s Ratio Prot								0.10				
v/s Ratio Perm		0.08							c0.24			
v/c Ratio		0.24						0.22	0.51			
Uniform Delay, d1		10.2						7.1	8.4			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.3						0.2	1.4			
Delay (s)		10.5						7.3	9.8			
Level of Service		B						A	A			
Approach Delay (s)		10.5			0.0			8.9			0.0	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.3										
HCM 2000 Volume to Capacity ratio		0.39										
Actuated Cycle Length (s)		45.0										
Intersection Capacity Utilization		77.3%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	232	484	368	0	0	0	0	526	28	106	117	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4775						1850		1770	1863	
Flt Permitted		0.99						1.00		0.36	1.00	
Satd. Flow (perm)		4775						1850		662	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	232	484	368	0	0	0	0	526	28	106	117	0
RTOR Reduction (vph)	0	206	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	878	0	0	0	0	0	550	0	106	117	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1379						986		353	993	
v/s Ratio Prot								c0.30			0.06	
v/s Ratio Perm		0.18								0.16		
v/c Ratio		0.64						0.56		0.30	0.12	
Uniform Delay, d1		13.9						7.0		5.8	5.2	
Progression Factor		1.00						1.00		0.40	0.41	
Incremental Delay, d2		2.3						2.3		2.2	0.2	
Delay (s)		16.2						9.2		4.5	2.4	
Level of Service		B						A		A	A	
Approach Delay (s)		16.2			0.0			9.2			3.4	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		82.6%						ICU Level of Service		E		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	9	322	44	419	368	0	0	211	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.63	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1166	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	322	44	419	368	0	0	211	425
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	322	11	419	368	0	0	211	425
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	673	1076			1076	1583
v/s Ratio Prot				0.01	c0.17			0.20			0.11	
v/s Ratio Perm						0.01	c0.36					0.27
v/c Ratio				0.02	0.71	0.03	0.62	0.34			0.20	0.27
Uniform Delay, d1				12.9	15.5	12.9	6.3	5.0			4.5	0.0
Progression Factor				0.70	0.69	0.65	0.61	0.66			1.05	1.00
Incremental Delay, d2				0.1	8.8	0.1	3.6	0.7			0.4	0.4
Delay (s)				9.1	19.5	8.5	7.4	4.0			5.1	0.4
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			17.9			5.8			2.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.0									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			82.6%									ICU Level of Service E
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	839	410	0	0	0	0	234	108	30	281	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4709	1362					1783			1854	
Flt Permitted		1.00	1.00					1.00			0.95	
Satd. Flow (perm)		4709	1362					1783			1764	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	839	410	0	0	0	0	234	108	30	281	0
RTOR Reduction (vph)	0	37	153	0	0	0	0	37	0	0	0	0
Lane Group Flow (vph)	0	957	134	0	0	0	0	305	0	0	311	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2197	635					633			627	
v/s Ratio Prot		c0.20						0.17				
v/s Ratio Perm			0.10								c0.18	
v/c Ratio		0.44	0.21					0.48			0.50	
Uniform Delay, d1		8.0	7.1					11.3			11.3	
Progression Factor		1.00	1.00					1.03			1.00	
Incremental Delay, d2		0.6	0.8					2.5			2.8	
Delay (s)		8.7	7.9					14.2			14.1	
Level of Service		A	A					B			B	
Approach Delay (s)		8.5			0.0			14.2			14.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			10.4					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			65.2%					ICU Level of Service		C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	539	26	0	0	0	0	0	0	747	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3268	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3268	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	539	26	0	0	0	0	0	0	747	124	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	74	74	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	299	424	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1562	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.19	0.13	
v/c Ratio		0.32								0.39	0.27	
Uniform Delay, d1		11.0								7.7	7.2	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								1.5	0.4	
Delay (s)		11.5								9.2	7.6	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			8.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.5			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		34.4%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	15	173	0	0	0	0	0	907	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5065						4956	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5065						4956	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	15	173	0	0	0	0	0	907	185
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	69	0
Lane Group Flow (vph)	0	0	0	0	172	0	0	0	0	0	1023	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1688						2422	
v/s Ratio Prot					c0.03						c0.21	
v/s Ratio Perm												
v/c Ratio					0.10						0.42	
Uniform Delay, d1					10.4						7.4	
Progression Factor					0.91						0.60	
Incremental Delay, d2					0.1						0.5	
Delay (s)					9.5						4.9	
Level of Service					A						A	
Approach Delay (s)		0.0			9.5			0.0			4.9	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.6		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			34.4%		ICU Level of Service					A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	777	254	0	0	0	0	0	0	242	721	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.96									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6171									5022	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6171									5022	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	777	254	0	0	0	0	0	0	242	721	0
RTOR Reduction (vph)	0	92	0	0	0	0	0	0	0	0	31	0
Lane Group Flow (vph)	0	939	0	0	0	0	0	0	0	0	932	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2194									2343	
v/s Ratio Prot		c0.15										
v/s Ratio Perm											0.19	
v/c Ratio		0.43									0.40	
Uniform Delay, d1		11.0									7.9	
Progression Factor		0.51									1.00	
Incremental Delay, d2		0.6									0.5	
Delay (s)		6.2									8.4	
Level of Service		A									A	
Approach Delay (s)		6.2			0.0			0.0			8.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		7.3			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		41.0%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	256	0	120	5	0	1	122	241	0	0	228	159
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	256	0	120	5	0	1	122	241	0	0	228	159
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	673	792	194	719	872	120	387				241	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	673	792	194	719	872	120	387				241	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	18	100	85	98	100	100	90				100	
cM capacity (veh/h)	313	286	815	248	257	908	1168				1323	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	256	120	122	120	120	152	235					
Volume Left	256	0	122	0	0	0	0					
Volume Right	0	120	0	0	0	0	159					
cSH	313	815	1168	1700	1700	1700	1700					
Volume to Capacity	0.82	0.15	0.10	0.07	0.07	0.09	0.14					
Queue Length 95th (ft)	171	13	9	0	0	0	0					
Control Delay (s)	52.3	10.2	8.4	0.0	0.0	0.0	0.0					
Lane LOS	F	B	A									
Approach Delay (s)	38.8			2.8	0.0							
Approach LOS	E											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	193	77	49	484	283	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1729		1770	1863	1863	1583
Flt Permitted	0.97		0.55	1.00	1.00	1.00
Satd. Flow (perm)	1729		1029	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	193	77	49	484	283	60
RTOR Reduction (vph)	32	0	0	0	0	36
Lane Group Flow (vph)	238	0	49	484	283	24
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	730		411	745	745	633
v/s Ratio Prot	c0.14			c0.26	0.15	
v/s Ratio Perm			0.05			0.02
v/c Ratio	0.33		0.12	0.65	0.38	0.04
Uniform Delay, d1	8.7		8.5	10.9	9.6	8.2
Progression Factor	1.00		1.00	1.00	0.74	1.08
Incremental Delay, d2	1.2		0.6	4.4	1.4	0.1
Delay (s)	9.9		9.1	15.3	8.5	9.0
Level of Service	A		A	B	A	A
Approach Delay (s)	9.9			14.7	8.6	
Approach LOS	A			B	A	

Intersection Summary

HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	854	118	0	0	0	0	487	316	4	218	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.94			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4965						3330			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4965						3330			1835	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	854	118	0	0	0	0	487	316	4	218	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	72	0	0	0	0
Lane Group Flow (vph)	0	1149	0	0	0	0	0	731	0	0	222	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1110			611	
v/s Ratio Prot		c0.23						c0.22				
v/s Ratio Perm											0.12	
v/c Ratio		0.47						0.66			0.36	
Uniform Delay, d1		7.6						12.8			11.4	
Progression Factor		1.00						1.44			1.29	
Incremental Delay, d2		0.7						2.7			1.6	
Delay (s)		8.3						21.2			16.3	
Level of Service		A						C			B	
Approach Delay (s)		8.3			0.0			21.2			16.3	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			13.8					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			53.6%					ICU Level of Service		A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	194	80	478	134	573	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3095	1441		3506				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3095	1441		3506				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	194	80	478	134	573	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	57	57	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	456	182	0	707	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1513	704		1168				
v/s Ratio Prot					c0.15			c0.20				
v/s Ratio Perm						0.13						
v/c Ratio					0.30	0.26		0.61				
Uniform Delay, d1					6.9	6.7		12.5				
Progression Factor					1.00	1.00		0.81				
Incremental Delay, d2					0.5	0.9		1.9				
Delay (s)					7.4	7.6		12.0				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.5			12.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.6									
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			45.0									
Intersection Capacity Utilization			46.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	758	0	0	0	0	0	919	189	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.97				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6365						4955				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6365						4955				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	758	0	0	0	0	0	919	189	0	0	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	61	0	0	0	0
Lane Group Flow (vph)	0	847	0	0	0	0	0	1047	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2687						1982				
v/s Ratio Prot								c0.21				
v/s Ratio Perm		0.13										
v/c Ratio		0.32						0.53				
Uniform Delay, d1		8.7						10.3				
Progression Factor		1.02						0.79				
Incremental Delay, d2		0.3						0.9				
Delay (s)		9.1						9.0				
Level of Service		A						A				
Approach Delay (s)		9.1			0.0			9.0			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.0						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.42										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		68.6%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	44	338	5	1	242	309	9	1	3	340	2	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	44	338	5	1	242	309	9	1	3	340	2	46
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	387	243	309	13	388							
Volume Left (vph)	44	1	0	9	340							
Volume Right (vph)	5	0	309	3	46							
Hadj (s)	0.05	0.04	-0.67	0.03	0.14							
Departure Headway (s)	6.3	6.6	5.9	7.6	6.4							
Degree Utilization, x	0.68	0.45	0.51	0.03	0.69							
Capacity (veh/h)	387	518	586	379	388							
Control Delay (s)	21.4	13.7	13.7	10.8	22.8							
Approach Delay (s)	21.4	13.7		10.8	22.8							
Approach LOS	C	B		B	C							
Intersection Summary												
Delay			18.5									
Level of Service			C									
Intersection Capacity Utilization			70.5%	ICU Level of Service					C			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	160	44	57	200	39	31	495	45	87	794	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	174	48	62	217	42	34	538	49	95	863	175
RTOR Reduction (vph)	0	0	37	0	17	0	0	6	0	0	0	152
Lane Group Flow (vph)	195	174	11	62	242	0	34	581	0	95	863	23
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Effective Green, g (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Actuated g/C Ratio	0.13	0.23	0.23	0.07	0.17		0.04	0.37		0.10	0.43	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	450	814	364	125	585		72	1288		185	1529	207
v/s Ratio Prot	c0.06	0.05		0.04	c0.07		0.02	0.17		c0.05	c0.24	0.01
v/s Ratio Perm			0.01									
v/c Ratio	0.43	0.21	0.03	0.50	0.41		0.47	0.45		0.51	0.56	0.11
Uniform Delay, d1	28.3	22.1	21.1	31.7	26.3		33.2	16.9		30.0	15.1	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	3.1	0.5		4.8	1.1		2.4	1.5	0.2
Delay (s)	29.0	22.2	21.2	34.8	26.7		38.0	18.1		32.4	16.6	27.3
Level of Service	C	C	C	C	C		D	B		C	B	C
Approach Delay (s)		25.3			28.3			19.2			19.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			21.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			70.8			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			50.5%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	141	99	50	134	95	84	547	38	125	1109	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	153	108	54	146	103	91	595	41	136	1205	125
RTOR Reduction (vph)	0	87	0	0	88	0	0	0	25	0	0	61
Lane Group Flow (vph)	110	174	0	54	161	0	91	595	16	136	1205	64
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Effective Green, g (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Actuated g/C Ratio	0.12	0.19		0.07	0.15		0.09	0.39	0.39	0.10	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	635		125	481		296	1392	622	333	1430	640
v/s Ratio Prot	c0.06	c0.05		0.03	0.05		0.03	0.17		c0.04	c0.34	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.53	0.27		0.43	0.33		0.31	0.43	0.03	0.41	0.84	0.10
Uniform Delay, d1	26.9	22.4		28.8	24.9		27.8	14.3	12.0	27.5	17.4	12.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2		2.4	0.4		0.6	1.0	0.1	0.8	6.2	0.3
Delay (s)	29.5	22.6		31.2	25.3		28.4	15.3	12.1	28.3	23.6	12.3
Level of Service	C	C		C	C		C	B	B	C	C	B
Approach Delay (s)		24.6			26.4			16.7			23.1	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			22.0			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			64.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			59.7%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative Year 2035 No Project Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	73	20	13	267	33	47	11	3	31	56	96
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	73	20	13	267	33	47	11	3	31	56	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	300			93			414	457	46	402	450	150
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300			93			414	457	46	402	450	150
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			89	98	100	94	89	89
cM capacity (veh/h)	1258			1499			415	485	1013	511	489	870
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	60	56	146	166	61	31	37	115				
Volume Left	24	0	13	0	47	31	0	0				
Volume Right	0	20	0	33	3	0	0	96				
cSH	1258	1700	1499	1700	439	511	489	772				
Volume to Capacity	0.02	0.03	0.01	0.10	0.14	0.06	0.08	0.15				
Queue Length 95th (ft)	1	0	1	0	12	5	6	13				
Control Delay (s)	3.2	0.0	0.7	0.0	14.5	12.5	13.0	10.5				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.7		0.3		14.5	11.3						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.8									
Intersection Capacity Utilization			33.5%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	187	10	0	0	0	0	61	20	63	201	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.96		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5042						3408		1770	5085	
Flt Permitted		1.00						1.00		0.70	1.00	
Satd. Flow (perm)		5042						3408		1307	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	187	10	0	0	0	0	61	20	63	201	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	197	0	0	0	0	0	67	0	63	201	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2890						1090		418	1627	
v/s Ratio Prot								0.02			0.04	
v/s Ratio Perm		0.04								0.05		
v/c Ratio		0.07						0.06		0.15	0.12	
Uniform Delay, d1		7.1						17.7		18.2	18.1	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.0						0.1		0.8	0.2	
Delay (s)		7.1						17.8		19.0	18.2	
Level of Service		A						B		B	B	
Approach Delay (s)		7.1			0.0			17.8			18.4	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.10										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		27.8%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	92	259	245	11	24	55	0	0	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.96
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3493	1583		1770	3539			4878
Flt Permitted					0.99	1.00		0.60	1.00			1.00
Satd. Flow (perm)					3493	1583		1125	3539			4878
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	92	259	245	11	24	55	0	0	166
RTOR Reduction (vph)	0	0	0	0	0	93	0	0	0	0	0	43
Lane Group Flow (vph)	0	0	0	0	351	152	0	35	55	0	0	185
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2165	981		337	1061			1463
v/s Ratio Prot									0.02			c0.04
v/s Ratio Perm					0.10	0.10		0.03				
v/c Ratio					0.16	0.15		0.10	0.05			0.13
Uniform Delay, d1					8.0	8.0		25.3	24.9			25.5
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.2	0.3		0.6	0.1			0.2
Delay (s)					8.2	8.3		25.9	25.0			25.6
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.2				25.3			25.6
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			14.3		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.15									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			27.8%		ICU Level of Service				A			
Analysis Period (min)			15									

c Critical Lane Group

7/24/2013

Movement	SBR
Lane Configurations	
Volume (vph)	62
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	62
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	339	37	48	749	46	137	170	14	50	95	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5010		1770	5041		1770	3499		1770	4706	
Flt Permitted	0.23	1.00		0.50	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	425	5010		933	5041		1770	3499		1770	4706	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	53	339	37	48	749	46	137	170	14	50	95	94
RTOR Reduction (vph)	0	17	0	0	9	0	0	8	0	0	82	0
Lane Group Flow (vph)	53	359	0	48	786	0	137	176	0	50	107	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	116	1377		256	1386		796	1574		221	588	
v/s Ratio Prot		0.07			c0.16		c0.08	0.05		c0.03	0.02	
v/s Ratio Perm	0.12			0.05								
v/c Ratio	0.46	0.26		0.19	0.57		0.17	0.11		0.23	0.18	
Uniform Delay, d1	24.0	22.7		22.2	24.9		13.1	12.7		31.5	31.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.4	0.5		1.6	1.7		0.5	0.1		2.4	0.7	
Delay (s)	36.5	23.1		23.8	26.6		13.6	12.9		33.9	32.0	
Level of Service	D	C		C	C		B	B		C	C	
Approach Delay (s)		24.8			26.4			13.2			32.4	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay		24.5			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		80.0			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		43.7%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	159	883	471	31	92	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6030	5038		3287	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6030	5038		3287	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	159	883	471	31	92	69
RTOR Reduction (vph)	103	53	10	0	0	0
Lane Group Flow (vph)	40	846	492	0	161	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1688	1410		920	
v/s Ratio Prot	0.03	c0.14	c0.10		c0.05	
v/s Ratio Perm						
v/c Ratio	0.10	0.50	0.35		0.17	
Uniform Delay, d1	20.0	22.6	21.5		20.4	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	1.1	0.7		0.4	
Delay (s)	20.5	23.7	22.2		20.9	
Level of Service	C	C	C		C	
Approach Delay (s)		23.2	22.2		20.9	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			22.7		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.34			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			37.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	239	289	43	559	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3216	1441	1433	6033				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3216	1441	1433	6033				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	239	289	43	559	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	79	110	17	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	284	55	22	556	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1072	480	802	3378				
v/s Ratio Prot					c0.09							
v/s Ratio Perm						0.04	0.02	0.09				
v/c Ratio					0.26	0.11	0.03	0.16				
Uniform Delay, d1					18.3	17.3	7.4	8.0				
Progression Factor					1.00	1.00	0.30	0.44				
Incremental Delay, d2					0.6	0.5	0.1	0.1				
Delay (s)					18.9	17.8	2.3	3.6				
Level of Service					B	B	A	A				
Approach Delay (s)		0.0			18.5			3.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.6			HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio		0.20										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)					8.0		
Intersection Capacity Utilization		26.7%			ICU Level of Service					A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	30	4	8	85	92	3	7	0	320	102	66
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	30	4	8	85	92	3	7	0	320	102	66
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	41	185	7	4	371	117						
Volume Left (vph)	7	8	3	0	320	0						
Volume Right (vph)	4	92	0	0	0	66						
Hadj (s)	0.01	-0.26	0.26	0.03	0.47	-0.36						
Departure Headway (s)	5.4	4.9	5.9	5.7	5.6	4.8						
Degree Utilization, x	0.06	0.25	0.01	0.01	0.58	0.15						
Capacity (veh/h)	614	687	568	589	628	735						
Control Delay (s)	8.7	9.5	7.8	7.5	14.7	7.4						
Approach Delay (s)	8.7	9.5	7.7		12.9							
Approach LOS	A	A	A		B							
Intersection Summary												
Delay			11.7									
Level of Service			B									
Intersection Capacity Utilization			42.3%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	2	7	22	26	16	337	33	103	369	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	2	2	7	22	26	16	337	33	103	369	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	836	1001	208	779	1008	185	417			370		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	836	1001	208	779	1008	185	417			370		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	100	97	90	97	99			91		
cM capacity (veh/h)	214	217	797	262	215	826	1138			1185		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	10	55	184	202	288	232						
Volume Left	6	7	16	0	103	0						
Volume Right	2	26	0	33	0	48						
cSH	252	343	1138	1700	1185	1700						
Volume to Capacity	0.04	0.16	0.01	0.12	0.09	0.14						
Queue Length 95th (ft)	3	14	1	0	7	0						
Control Delay (s)	19.9	17.5	0.8	0.0	3.5	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	19.9	17.5	0.4		1.9							
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			38.9%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	33	21	5	51	45	34	326	30	101	333	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.94			0.99			0.96	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1769			1746			3483			3363	
Flt Permitted		0.89			0.99			0.89			0.83	
Satd. Flow (perm)		1601			1734			3104			2800	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	33	21	5	51	45	34	326	30	101	333	168
RTOR Reduction (vph)	0	14	0	0	30	0	0	11	0	0	74	0
Lane Group Flow (vph)	0	74	0	0	71	0	0	379	0	0	528	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		523			567			1636			1476	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.04			0.12			c0.19	
v/c Ratio		0.14			0.12			0.23			0.36	
Uniform Delay, d1		13.0			13.0			7.0			7.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.5			0.3			0.7	
Delay (s)		13.6			13.4			7.3			8.3	
Level of Service		B			B			A			A	
Approach Delay (s)		13.6			13.4			7.3			8.3	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.8			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.27										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		50.0%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	931	177	99	0	0	0	0	305	513	548	320	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	931	177	99	0	0	0	0	305	513	548	320	0
RTOR Reduction (vph)	0	0	71	0	0	0	0	0	203	0	0	0
Lane Group Flow (vph)	465	643	28	0	0	0	0	305	310	548	320	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	916	443					990	443	961	521	
v/s Ratio Prot	c0.29	0.20	0.02					0.09	c0.20	0.16	c0.17	
v/s Ratio Perm												
v/c Ratio	1.03	0.99dl	0.06					0.31	0.70	0.57	0.61	
Uniform Delay, d1	27.0	24.2	19.8					21.3	24.2	23.1	23.5	
Progression Factor	1.00	1.00	1.04					1.00	1.00	0.98	0.99	
Incremental Delay, d2	51.3	4.5	0.3					0.8	8.9	2.4	5.2	
Delay (s)	78.3	28.7	20.9					22.1	33.1	25.1	28.4	
Level of Service	E	C	C					C	C	C	C	
Approach Delay (s)		47.1			0.0			29.0			26.3	
Approach LOS		D			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			35.8					HCM 2000 Level of Service			D	
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			75.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			85.4%					ICU Level of Service		E		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	294	156	533	64	463	0	0	354	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.91	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3069	1441	1770	3539			4998	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3069	1441	1770	3539			4998	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	294	156	533	64	463	0	0	354	46
RTOR Reduction (vph)	0	0	0	0	182	181	0	0	0	0	22	0
Lane Group Flow (vph)	0	0	0	294	241	85	64	463	0	0	378	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	982	461	212	2029			1999	
v/s Ratio Prot				c0.17	0.08	0.06	c0.04	c0.13			0.08	
v/s Ratio Perm												
v/c Ratio				0.52	0.25	0.18	0.30	0.23			0.19	
Uniform Delay, d1				20.8	18.8	18.4	30.1	7.9			14.6	
Progression Factor				1.00	1.00	1.00	0.83	0.16			1.00	
Incremental Delay, d2				3.4	0.6	0.9	2.4	0.2			0.2	
Delay (s)				24.2	19.4	19.3	27.3	1.4			14.8	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			20.8			4.5			14.8	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			15.1		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			85.4%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	632	125	0	0	0	0	410	78	105	529	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Flt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		5056	1583					3454		1770	3539	
Flt Permitted		0.99	1.00					1.00		0.34	1.00	
Satd. Flow (perm)		5056	1583					3454		638	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	632	125	0	0	0	0	410	78	105	529	0
RTOR Reduction (vph)	0	0	83	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	716	42	0	0	0	0	462	0	105	529	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		20.0	20.0					20.0		32.0	32.0	
Effective Green, g (s)		20.0	20.0					20.0		32.0	32.0	
Actuated g/C Ratio		0.33	0.33					0.33		0.53	0.53	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)		1685	527					1151		491	1887	
v/s Ratio Prot		c0.14						c0.13		0.03	c0.15	
v/s Ratio Perm			0.03							0.09		
v/c Ratio		0.42	0.08					0.40		0.21	0.28	
Uniform Delay, d1		15.5	13.7					15.4		7.4	7.7	
Progression Factor		1.00	1.00					1.00		0.78	0.68	
Incremental Delay, d2		0.8	0.3					1.0		0.9	0.4	
Delay (s)		16.3	14.0					16.4		6.7	5.6	
Level of Service		B	B					B		A	A	
Approach Delay (s)		16.0			0.0			16.4			5.8	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.40										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		46.6%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	145	500	106	93	367	0	0	471	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3431		1770	3539			5023	
Flt Permitted					0.99		0.36	1.00			1.00	
Satd. Flow (perm)					3431		679	3539			5023	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	145	500	106	93	367	0	0	471	42
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	729	0	93	367	0	0	496	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1143		507	1887			1674	
v/s Ratio Prot					c0.21		0.02	c0.10			c0.10	
v/s Ratio Perm							0.07					
v/c Ratio					0.64		0.18	0.19			0.30	
Uniform Delay, d1					16.9		7.1	7.3			14.8	
Progression Factor					1.00		0.67	0.64			1.93	
Incremental Delay, d2					2.7		0.7	0.2			0.4	
Delay (s)					19.7		5.5	4.8			28.9	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			19.7			5.0			28.9	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.5				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			46.6%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	278	79	1	327	111	0	362	24	0	642	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3421			3405			3506			3471	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		3260			3250			3506			3471	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	278	79	1	327	111	0	362	24	0	642	95
RTOR Reduction (vph)	0	43	0	0	56	0	0	8	0	0	19	0
Lane Group Flow (vph)	0	317	0	0	383	0	0	378	0	0	718	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1467			1462			1460			1446	
v/s Ratio Prot								0.11			c0.21	
v/s Ratio Perm		0.10			c0.12							
v/c Ratio		0.22			0.26			0.26			0.50	
Uniform Delay, d1		10.1			10.3			11.4			12.9	
Progression Factor		1.00			1.00			1.75			1.00	
Incremental Delay, d2		0.3			0.4			0.4			1.2	
Delay (s)		10.4			10.7			20.5			14.1	
Level of Service		B			B			C			B	
Approach Delay (s)		10.4			10.7			20.5			14.1	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		13.9			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		40.7%			ICU Level of Service			A				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	5	21	0	0	0	0	14	7	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	5	21	0	0	0	0	14	7	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	21			41			80	64	34	64	72	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			41			80	64	34	64	72	21
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	98	99	99
cM capacity (veh/h)	1595			1568			890	824	1040	927	816	1056
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	26	18	16								
Volume Left	0	5	14	0								
Volume Right	15	0	0	12								
cSH	1700	1568	903	991								
Volume to Capacity	0.02	0.00	0.02	0.02								
Queue Length 95th (ft)	0	0	1	1								
Control Delay (s)	0.0	1.4	9.1	8.7								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	8.9									
Approach LOS			A									
Intersection Summary												
Average Delay			3.3									
Intersection Capacity Utilization			15.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	21	13	8	23	0	0	0	0	7	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	21	13	8	23	0	0	0	0	7	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	23			34			70	66	28	66	73	23
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			34			70	66	28	66	73	23
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1592			1578			914	820	1048	923	813	1054
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	34	31	8	4								
Volume Left	0	8	7	0								
Volume Right	13	0	0	2								
cSH	1700	1578	902	935								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	0	1	0								
Control Delay (s)	0.0	1.9	9.0	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.9	9.0									
Approach LOS			A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			18.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	41	103	118	32	12	28
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	41	103	118	32	12	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		116	82	185	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		116	82	185	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		85	96	98	97
cM capacity (veh/h)	1623		811	788	691	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	41	103	150	12	28	
Volume Left	41	0	118	0	0	
Volume Right	0	103	0	0	28	
cSH	1623	1700	806	691	1085	
Volume to Capacity	0.03	0.06	0.19	0.02	0.03	
Queue Length 95th (ft)	2	0	17	1	2	
Control Delay (s)	7.3	0.0	10.5	10.3	8.4	
Lane LOS	A		B	B	A	
Approach Delay (s)	2.1		10.5	9.0		
Approach LOS			B	A		
Intersection Summary						
Average Delay	6.7					
Intersection Capacity Utilization	24.9%		ICU Level of Service			A
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	691	0	0	0	0	0	607	1356	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5037						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5037						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	691	0	0	0	0	0	607	1356	0	0	0
RTOR Reduction (vph)	0	88	0	0	0	0	0	0	77	0	0	0
Lane Group Flow (vph)	0	768	0	0	0	0	0	607	1279	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1790						2373	1300			
v/s Ratio Prot								0.12				
v/s Ratio Perm		0.15							c0.46			
v/c Ratio		0.43						0.26	0.98			
Uniform Delay, d1		11.0						7.3	11.8			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.8						0.3	21.3			
Delay (s)		11.8						7.5	33.2			
Level of Service		B						A	C			
Approach Delay (s)		11.8			0.0			25.2			0.0	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay		21.2						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.74										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		93.1%						ICU Level of Service	F			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	438	446	0	0	0	0	212	41	66	69	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4739						1822		1770	1863	
Flt Permitted		0.99						1.00		0.60	1.00	
Satd. Flow (perm)		4739						1822		1122	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	311	438	446	0	0	0	0	212	41	66	69	0
RTOR Reduction (vph)	0	240	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	955	0	0	0	0	0	238	0	66	69	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1369						971		598	993	
v/s Ratio Prot								c0.13			0.04	
v/s Ratio Perm		0.20								0.06		
v/c Ratio		0.70						0.24		0.11	0.07	
Uniform Delay, d1		14.3						5.6		5.2	5.1	
Progression Factor		1.00						1.00		0.29	0.30	
Incremental Delay, d2		3.0						0.6		0.4	0.1	
Delay (s)		17.2						6.2		1.9	1.7	
Level of Service		B						A		A	A	
Approach Delay (s)		17.2			0.0			6.2			1.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		14.1						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.40										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		66.9%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	311	56	274	281	0	0	176	1408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1204	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	311	56	274	281	0	0	176	1408
RTOR Reduction (vph)	0	0	0	0	0	42	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	311	14	274	281	0	0	176	1408
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	695	1076			1076	1583
v/s Ratio Prot				0.00	0.17			0.15			0.09	
v/s Ratio Perm						0.01	0.23					c0.89
v/c Ratio				0.00	0.68	0.04	0.39	0.26			0.16	0.89
Uniform Delay, d1				12.9	15.4	13.0	5.2	4.7			4.4	0.0
Progression Factor				0.70	0.70	0.74	1.09	1.04			1.69	1.00
Incremental Delay, d2				0.0	7.9	0.2	1.5	0.5			0.2	6.0
Delay (s)				9.0	18.7	9.8	7.1	5.4			7.7	6.0
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			17.3			6.3			6.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.8									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			66.9%									ICU Level of Service C
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	529	1308	0	0	0	0	354	90	28	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4413	1362					1812			1856	
Flt Permitted		1.00	1.00					1.00			0.95	
Satd. Flow (perm)		4413	1362					1812			1773	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	529	1308	0	0	0	0	354	90	28	356	0
RTOR Reduction (vph)	0	158	158	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	1063	496	0	0	0	0	423	0	0	384	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2059	635					644			630	
v/s Ratio Prot		0.24						c0.23				
v/s Ratio Perm			c0.36								0.22	
v/c Ratio		0.52	0.78					0.66			0.61	
Uniform Delay, d1		8.4	10.1					12.2			11.9	
Progression Factor		1.00	1.00					0.62			1.00	
Incremental Delay, d2		0.9	9.2					5.1			4.4	
Delay (s)		9.4	19.3					12.7			16.3	
Level of Service		A	B					B			B	
Approach Delay (s)		12.8			0.0			12.7			16.3	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.3					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			80.9%					ICU Level of Service		D		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	547	22	0	0	0	0	0	0	589	105	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5056								1610	3270	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5056								1610	3270	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	547	22	0	0	0	0	0	0	589	105	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	71	71	0
Lane Group Flow (vph)	0	560	0	0	0	0	0	0	0	223	329	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1563	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.14	0.10	
v/c Ratio		0.32								0.29	0.21	
Uniform Delay, d1		11.0								7.3	7.0	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								0.9	0.3	
Delay (s)		11.5								8.2	7.3	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			7.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.4				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			46.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			31.1%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	34	180	0	0	0	0	0	709	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5045						4890	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5045						4890	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	34	180	0	0	0	0	0	709	244
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	0	0	0	191	0	0	0	0	0	828	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1681						2390	
v/s Ratio Prot					c0.04						c0.17	
v/s Ratio Perm												
v/c Ratio					0.11						0.35	
Uniform Delay, d1					10.4						7.1	
Progression Factor					1.02						0.59	
Incremental Delay, d2					0.1						0.4	
Delay (s)					10.8						4.5	
Level of Service					B						A	
Approach Delay (s)		0.0			10.8			0.0			4.5	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.25									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			31.1%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	435	254	0	0	0	0	0	0	142	678	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0									4.0		
Lane Util. Factor		0.86									0.91		
Frt		0.94									1.00		
Flt Protected		1.00									0.99		
Satd. Flow (prot)		6054									5042		
Flt Permitted		1.00									0.99		
Satd. Flow (perm)		6054									5042		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	435	254	0	0	0	0	0	0	142	678	0	
RTOR Reduction (vph)	0	104	0	0	0	0	0	0	0	0	72	0	
Lane Group Flow (vph)	0	585	0	0	0	0	0	0	0	0	748	0	
Turn Type		NA									Perm	NA	
Protected Phases		4									6		
Permitted Phases											6		
Actuated Green, G (s)		16.0									21.0		
Effective Green, g (s)		16.0									21.0		
Actuated g/C Ratio		0.36									0.47		
Clearance Time (s)		4.0									4.0		
Lane Grp Cap (vph)		2152									2352		
v/s Ratio Prot		c0.10											
v/s Ratio Perm											0.15		
v/c Ratio		0.27									0.32		
Uniform Delay, d1		10.3									7.5		
Progression Factor		0.60									1.00		
Incremental Delay, d2		0.3									0.4		
Delay (s)		6.4									7.9		
Level of Service		A									A		
Approach Delay (s)		6.4			0.0			0.0			7.9		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM 2000 Control Delay			7.2		HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio			0.30										
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0			
Intersection Capacity Utilization			33.2%		ICU Level of Service					A			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	92	0	70	2	0	0	356	578	0	0	325	97
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	92	0	70	2	0	0	356	578	0	0	325	97
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1374	1664	211	1522	1712	289	422				578	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1374	1664	211	1522	1712	289	422				578	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	0	100	91	96	100	100	69				100	
cM capacity (veh/h)	79	66	794	56	61	708	1134				992	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	92	70	356	289	289	217	205					
Volume Left	92	0	356	0	0	0	0					
Volume Right	0	70	0	0	0	0	97					
cSH	79	794	1134	1700	1700	1700	1700					
Volume to Capacity	1.16	0.09	0.31	0.17	0.17	0.13	0.12					
Queue Length 95th (ft)	168	7	34	0	0	0	0					
Control Delay (s)	246.0	10.0	9.6	0.0	0.0	0.0	0.0					
Lane LOS	F	A	A									
Approach Delay (s)	144.0			3.7	0.0							
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	94	153	709	514	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.91		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1666		1770	1863	1863	1583
Flt Permitted	0.98		0.30	1.00	1.00	1.00
Satd. Flow (perm)	1666		550	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	94	153	709	514	84
RTOR Reduction (vph)	54	0	0	0	0	50
Lane Group Flow (vph)	85	0	153	709	514	34
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	703		220	745	745	633
v/s Ratio Prot	c0.05			c0.38	0.28	
v/s Ratio Perm			0.28			0.02
v/c Ratio	0.12		0.70	0.95	0.69	0.05
Uniform Delay, d1	7.9		11.2	13.1	11.2	8.3
Progression Factor	1.00		1.00	1.00	0.82	0.78
Incremental Delay, d2	0.4		16.7	23.1	5.1	0.2
Delay (s)	8.3		27.9	36.2	14.4	6.6
Level of Service	A		C	D	B	A
Approach Delay (s)	8.3			34.7	13.3	
Approach LOS	A			C	B	

Intersection Summary

HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	682	155	0	0	0	0	589	181	3	155	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3414			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3414			1836	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	269	682	155	0	0	0	0	589	181	3	155	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	65	0	0	0	0
Lane Group Flow (vph)	0	1056	0	0	0	0	0	705	0	0	158	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1138			612	
v/s Ratio Prot		c0.21						c0.21				
v/s Ratio Perm											0.09	
v/c Ratio		0.44						0.62			0.26	
Uniform Delay, d1		7.5						12.6			10.9	
Progression Factor		1.00						1.83			1.13	
Incremental Delay, d2		0.6						1.1			1.0	
Delay (s)		8.1						24.2			13.3	
Level of Service		A						C			B	
Approach Delay (s)		8.1			0.0			24.2			13.3	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		50.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	75	61	527	150	463	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.90	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					3026	1441		3496				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					3026	1441		3496				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	75	61	527	150	463	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	90	90	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	310	173	0	613	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1479	704		1165				
v/s Ratio Prot					0.10			c0.18				
v/s Ratio Perm						c0.12						
v/c Ratio					0.21	0.25		0.53				
Uniform Delay, d1					6.5	6.7		12.1				
Progression Factor					1.00	1.00		0.76				
Incremental Delay, d2					0.3	0.8		1.4				
Delay (s)					6.9	7.5		10.7				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.1			10.7			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			8.8				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			45.6%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	416	0	0	0	0	0	932	83	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6342						5023				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6342						5023				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	416	0	0	0	0	0	932	83	0	0	0
RTOR Reduction (vph)	0	28	0	0	0	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	496	0	0	0	0	0	992	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2677						2009				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.08										
v/c Ratio		0.19						0.49				
Uniform Delay, d1		8.1						10.1				
Progression Factor		1.04						0.82				
Incremental Delay, d2		0.1						0.8				
Delay (s)		8.6						9.1				
Level of Service		A						A				
Approach Delay (s)		8.6			0.0			9.1			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.9						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		66.5%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	421	19	20	623	436	75	45	56	390	16	137
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	421	19	20	623	436	75	45	56	390	16	137
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	510	643	436	176	543							
Volume Left (vph)	70	20	0	75	390							
Volume Right (vph)	19	0	436	56	137							
Hadj (s)	0.04	0.05	-0.67	-0.07	0.03							
Departure Headway (s)	8.3	8.6	7.9	9.5	8.2							
Degree Utilization, x	1.17	1.54	0.95	0.46	1.23							
Capacity (veh/h)	439	422	452	367	436							
Control Delay (s)	127.7	273.8	58.6	20.3	149.4							
Approach Delay (s)	127.7	186.9		20.3	149.4							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			152.3									
Level of Service			F									
Intersection Capacity Utilization			108.6%	ICU Level of Service		G						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	193	68	38	334	106	77	857	37	58	617	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	292	210	74	41	363	115	84	932	40	63	671	374
RTOR Reduction (vph)	0	0	50	0	31	0	0	3	0	0	0	315
Lane Group Flow (vph)	292	210	24	41	447	0	84	969	0	63	671	59
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Effective Green, g (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Actuated g/C Ratio	0.16	0.33	0.33	0.06	0.23		0.09	0.32		0.09	0.32	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	538	1155	516	103	778		164	1139		153	1123	248
v/s Ratio Prot	c0.09	0.06		0.02	c0.13		c0.05	c0.28		0.04	0.19	0.04
v/s Ratio Perm			0.02									
v/c Ratio	0.54	0.18	0.05	0.40	0.57		0.51	0.85		0.41	0.60	0.24
Uniform Delay, d1	30.5	18.9	18.1	35.6	26.9		33.9	24.7		33.9	22.5	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	2.5	1.0		2.7	8.1		1.8	2.3	0.5
Delay (s)	31.6	19.0	18.1	38.1	27.9		36.5	32.8		35.7	24.9	29.4
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		25.3			28.7			33.1			27.0	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			28.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			78.4			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			61.8%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	283	124	65	338	162	119	876	47	125	507	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	308	135	71	367	176	129	952	51	136	551	62
RTOR Reduction (vph)	0	46	0	0	59	0	0	0	35	0	0	43
Lane Group Flow (vph)	165	397	0	71	484	0	129	952	16	136	551	19
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Effective Green, g (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Actuated g/C Ratio	0.16	0.30		0.09	0.22		0.11	0.30	0.30	0.11	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	996		161	757		364	1079	482	373	1088	486
v/s Ratio Prot	c0.09	0.12		0.04	c0.14		0.04	c0.27		c0.04	0.16	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.58	0.40		0.44	0.64		0.35	0.88	0.03	0.36	0.51	0.04
Uniform Delay, d1	31.0	22.5		34.4	28.1		33.2	26.4	19.5	33.1	22.7	19.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.3		1.9	1.8		0.6	10.4	0.1	0.6	1.7	0.2
Delay (s)	33.9	22.8		36.3	29.8		33.8	36.9	19.6	33.7	24.4	19.6
Level of Service	C	C		D	C		C	D	B	C	C	B
Approach Delay (s)		25.8			30.6			35.8			25.7	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			30.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			64.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative Year 2035 No Project Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	273	14	8	161	39	42	97	22	45	20	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	53	273	14	8	161	39	42	97	22	45	20	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	200			287			532	602	144	510	590	100
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	200			287			532	602	144	510	590	100
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			89	75	97	87	95	96
cM capacity (veh/h)	1370			1272			383	394	878	341	400	936
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	190	150	88	120	161	45	13	47				
Volume Left	53	0	8	0	42	45	0	0				
Volume Right	0	14	0	39	22	0	0	40				
cSH	1370	1700	1272	1700	422	341	400	786				
Volume to Capacity	0.04	0.09	0.01	0.07	0.38	0.13	0.03	0.06				
Queue Length 95th (ft)	3	0	0	0	44	11	3	5				
Control Delay (s)	2.4	0.0	0.8	0.0	18.7	17.1	14.3	9.9				
Lane LOS	A		A		C	C	B	A				
Approach Delay (s)	1.3		0.3		18.7	13.6						
Approach LOS					C	B						
Intersection Summary												
Average Delay			6.1									
Intersection Capacity Utilization			40.9%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	471	13	0	0	0	0	176	24	105	73	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		1.00						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5062						3476		1770	5085	
Flt Permitted		1.00						1.00		0.63	1.00	
Satd. Flow (perm)		5062						3476		1166	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	471	13	0	0	0	0	176	24	105	73	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	486	0	0	0	0	0	186	0	105	73	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2902						1112		373	1627	
v/s Ratio Prot								0.05			0.01	
v/s Ratio Perm		0.10								0.09		
v/c Ratio		0.17						0.17		0.28	0.04	
Uniform Delay, d1		7.6						18.3		19.1	17.6	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.1						0.3		1.9	0.1	
Delay (s)		7.7						18.6		20.9	17.6	
Level of Service		A						B		C	B	
Approach Delay (s)		7.7			0.0			18.6			19.6	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		12.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.21										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		31.0%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↑↑	↑		↓	↑↑			↑↑↓
Volume (vph)	0	0	0	23	156	272	17	33	156	0	0	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.97
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3517	1583		1770	3539			4938
Flt Permitted					0.99	1.00		0.63	1.00			1.00
Satd. Flow (perm)					3517	1583		1179	3539			4938
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	23	156	272	17	33	156	0	0	146
RTOR Reduction (vph)	0	0	0	0	0	103	0	0	0	0	0	25
Lane Group Flow (vph)	0	0	0	0	179	169	0	50	156	0	0	157
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2180	981		353	1061			1481
v/s Ratio Prot									c0.04			0.03
v/s Ratio Perm					0.05	c0.11		0.04				
v/c Ratio					0.08	0.17		0.14	0.15			0.11
Uniform Delay, d1					7.6	8.1		25.6	25.6			25.3
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.1	0.4		0.8	0.3			0.1
Delay (s)					7.7	8.5		26.4	25.9			25.4
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.2				26.0			25.4
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			16.3		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			31.0%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013



Movement	SBR
Left Lane Configurations	
Volume (vph)	35
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	35
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	991	80	35	424	46	137	254	45	66	107	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.98		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5028		1770	5011		1770	3459		1770	4773	
Flt Permitted	0.43	1.00		0.18	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	795	5028		339	5011		1770	3459		1770	4773	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	991	80	35	424	46	137	254	45	66	107	74
RTOR Reduction (vph)	0	12	0	0	17	0	0	18	0	0	65	0
Lane Group Flow (vph)	132	1059	0	35	453	0	137	281	0	66	116	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	218	1382		93	1378		796	1556		221	596	
v/s Ratio Prot		c0.21			0.09		0.08	c0.08		c0.04	0.02	
v/s Ratio Perm	0.17			0.10								
v/c Ratio	0.61	0.77		0.38	0.33		0.17	0.18		0.30	0.20	
Uniform Delay, d1	25.2	26.6		23.5	23.1		13.1	13.2		31.8	31.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.9	4.1		11.2	0.6		0.5	0.3		3.4	0.7	
Delay (s)	37.1	30.8		34.7	23.8		13.6	13.4		35.2	32.1	
Level of Service	D	C		C	C		B	B		D	C	
Approach Delay (s)		31.5			24.5			13.5			33.0	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			26.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			49.7%			ICU Level of Service			A			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	194	613	1360	44	76	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6017	5061		3316	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6017	5061		3316	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	613	1360	44	76	41
RTOR Reduction (vph)	112	53	4	0	0	0
Lane Group Flow (vph)	43	599	1400	0	117	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1684	1417		928	
v/s Ratio Prot	0.03	c0.10	c0.28		c0.04	
v/s Ratio Perm						
v/c Ratio	0.11	0.36	0.99		0.13	
Uniform Delay, d1	20.0	21.6	26.9		20.2	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.6	21.2		0.3	
Delay (s)	20.6	22.2	48.0		20.4	
Level of Service	C	C	D		C	
Approach Delay (s)		21.9	48.0		20.4	
Approach LOS		C	D		C	
Intersection Summary						
HCM 2000 Control Delay			37.6		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.49			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			50.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	249	802	36	1745	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3076	1441	1433	6035				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3076	1441	1433	6035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	249	802	36	1745	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	10	14	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	640	391	18	1742	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1025	480	802	3379				
v/s Ratio Prot					0.21							
v/s Ratio Perm						c0.27	0.01	0.29				
v/c Ratio					0.62	0.81	0.02	0.52				
Uniform Delay, d1					21.0	22.9	7.4	10.2				
Progression Factor					1.00	1.00	0.02	0.20				
Incremental Delay, d2					2.9	14.1	0.0	0.3				
Delay (s)					23.9	37.0	0.2	2.4				
Level of Service					C	D	A	A				
Approach Delay (s)		0.0			28.9			2.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.2			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		63.1%			ICU Level of Service			B				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	24	82	14	12	35	64	6	34	17	310	217	84
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	82	14	12	35	64	6	34	17	310	217	84
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	120	111	23	34	419	193						
Volume Left (vph)	24	12	6	0	310	0						
Volume Right (vph)	14	64	0	17	0	84						
Hadj (s)	0.00	-0.29	0.16	-0.32	0.40	-0.27						
Departure Headway (s)	5.6	5.3	6.1	5.6	5.6	5.0						
Degree Utilization, x	0.19	0.16	0.04	0.05	0.66	0.27						
Capacity (veh/h)	597	621	554	599	624	707						
Control Delay (s)	9.9	9.4	8.1	7.7	17.6	8.6						
Approach Delay (s)	9.9	9.4	7.9		14.7							
Approach LOS	A	A	A		B							
Intersection Summary												
Delay			13.0									
Level of Service			B									
Intersection Capacity Utilization			41.4%	ICU Level of Service				A				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	20	10	13	20	49	59	484	161	135	515	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	20	10	13	20	49	59	484	161	135	515	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	1.00	1.00	1.00	1.00	1.00		1.00					
vC, conflicting volume	1246	1590	300	1230	1552	322	599			645		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1242	1587	294	1226	1549	322	594			645		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	70	77	99	86	78	93	94			86		
cM capacity (veh/h)	86	86	701	93	91	673	976			936		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	56	82	301	403	392	342						
Volume Left	26	13	59	0	135	0						
Volume Right	10	49	0	161	0	84						
cSH	102	189	976	1700	936	1700						
Volume to Capacity	0.55	0.43	0.06	0.24	0.14	0.20						
Queue Length 95th (ft)	63	50	5	0	13	0						
Control Delay (s)	76.9	37.8	2.3	0.0	4.3	0.0						
Lane LOS	F	E	A		A							
Approach Delay (s)	76.9	37.8	1.0		2.3							
Approach LOS	F	E										
Intersection Summary												
Average Delay			6.2									
Intersection Capacity Utilization			58.3%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	118	28	10	102	99	23	274	18	102	459	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.98			0.94			0.99			0.97	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1797			1741			3496			3396	
Flt Permitted		0.81			0.98			0.90			0.85	
Satd. Flow (perm)		1488			1716			3149			2924	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	118	28	10	102	99	23	274	18	102	459	162
RTOR Reduction (vph)	0	8	0	0	58	0	0	8	0	0	48	0
Lane Group Flow (vph)	0	244	0	0	153	0	0	307	0	0	675	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		486			561			1660			1541	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.09			0.10			c0.23	
v/c Ratio		0.50			0.27			0.18			0.44	
Uniform Delay, d1		14.9			13.7			6.8			8.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.7			1.2			0.2			0.9	
Delay (s)		18.6			14.9			7.1			8.9	
Level of Service		B			B			A			A	
Approach Delay (s)		18.6			14.9			7.1			8.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.46										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		68.7%			ICU Level of Service			C				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1162	328	84	0	0	0	0	408	446	879	378	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3285	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3285	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1162	328	84	0	0	0	0	408	446	879	378	0
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	91	0	0	0
Lane Group Flow (vph)	581	909	24	0	0	0	0	408	355	879	378	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	919	443					990	443	961	521	
v/s Ratio Prot	c0.36	0.28	0.01					0.12	c0.22	c0.26	0.20	
v/s Ratio Perm												
v/c Ratio	1.29	1.24dl	0.05					0.41	0.80	0.91	0.73	
Uniform Delay, d1	27.0	26.9	19.7					22.0	25.1	26.1	24.4	
Progression Factor	0.97	0.97	0.93					1.00	1.00	0.81	0.81	
Incremental Delay, d2	146.8	27.2	0.2					1.3	14.2	13.8	8.0	
Delay (s)	173.0	53.2	18.6					23.2	39.3	34.9	27.8	
Level of Service	F	D	B					C	D	C	C	
Approach Delay (s)		95.6			0.0			31.6			32.8	
Approach LOS		F			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			59.3									HCM 2000 Level of Service E
HCM 2000 Volume to Capacity ratio			1.00									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 12.0
Intersection Capacity Utilization			109.0%									ICU Level of Service G
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	263	164	791	91	352	0	0	867	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.89	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3031	1441	1770	3539			5052	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3031	1441	1770	3539			5052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	263	164	791	91	352	0	0	867	40
RTOR Reduction (vph)	0	0	0	0	269	269	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	263	291	126	91	352	0	0	900	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	969	461	212	2029			2020	
v/s Ratio Prot				c0.15	0.10	0.09	c0.05	0.10			c0.18	
v/s Ratio Perm												
v/c Ratio				0.46	0.30	0.27	0.43	0.17			0.45	
Uniform Delay, d1				20.4	19.2	19.0	30.6	7.6			16.4	
Progression Factor				1.00	1.00	1.00	0.92	0.10			1.00	
Incremental Delay, d2				2.7	0.8	1.5	2.1	0.1			0.7	
Delay (s)				23.1	20.0	20.5	30.3	0.9			17.1	
Level of Service				C	B	C	C	A			B	
Approach Delay (s)		0.0			20.8			6.9			17.1	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			17.1									HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio			0.45									B
Actuated Cycle Length (s)			75.0									Sum of lost time (s)
Intersection Capacity Utilization			109.0%									12.0
Analysis Period (min)			15									ICU Level of Service
c Critical Lane Group												G

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	813	305	0	0	0	0	453	68	127	895	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		5036	1583					3470		1770	3539	
Flt Permitted		0.99	1.00					1.00		0.32	1.00	
Satd. Flow (perm)		5036	1583					3470		599	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	813	305	0	0	0	0	453	68	127	895	0
RTOR Reduction (vph)	0	0	79	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	1012	226	0	0	0	0	501	0	127	895	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		20.0	20.0					20.0		32.0	32.0	
Effective Green, g (s)		20.0	20.0					20.0		32.0	32.0	
Actuated g/C Ratio		0.33	0.33					0.33		0.53	0.53	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)		1678	527					1156		475	1887	
v/s Ratio Prot		c0.20						0.14		0.04	c0.25	
v/s Ratio Perm			0.14							0.11		
v/c Ratio		0.60	0.43					0.43		0.27	0.47	
Uniform Delay, d1		16.7	15.6					15.6		7.5	8.7	
Progression Factor		1.00	1.00					1.00		0.77	0.52	
Incremental Delay, d2		1.6	2.5					1.2		1.1	0.7	
Delay (s)		18.3	18.1					16.8		6.9	5.2	
Level of Service		B	B					B		A	A	
Approach Delay (s)		18.3			0.0			16.8			5.5	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			13.4					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			63.6%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	206	692	127	124	458	0	0	783	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3439		1770	3539			4992	
Flt Permitted					0.99		0.19	1.00			1.00	
Satd. Flow (perm)					3439		360	3539			4992	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	206	692	127	124	458	0	0	783	109
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	0	0	0	1006	0	124	458	0	0	862	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1146		380	1887			1664	
v/s Ratio Prot					c0.29		c0.04	0.13			c0.17	
v/s Ratio Perm							0.13					
v/c Ratio					0.88		0.33	0.24			0.52	
Uniform Delay, d1					18.9		7.9	7.5			16.1	
Progression Factor					1.00		1.56	0.78			1.89	
Incremental Delay, d2					9.6		2.0	0.3			0.8	
Delay (s)					28.5		14.3	6.1			31.3	
Level of Service					C		B	A			C	
Approach Delay (s)		0.0			28.5			7.8			31.3	
Approach LOS		A			C			A			C	
Intersection Summary												
HCM 2000 Control Delay			24.7				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			63.6%				ICU Level of Service			B		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	328	103	5	582	175	2	556	27	0	988	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3412			3416			3514			3479	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		3232			3256			3347			3479	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	328	103	5	582	175	2	556	27	0	988	127
RTOR Reduction (vph)	0	25	0	0	46	0	0	6	0	0	16	0
Lane Group Flow (vph)	0	412	0	0	716	0	0	579	0	0	1099	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1454			1465			1394			1449	
v/s Ratio Prot											c0.32	
v/s Ratio Perm		0.13			c0.22			0.17				
v/c Ratio		0.28			0.49			0.42			0.76	
Uniform Delay, d1		10.4			11.6			12.3			14.9	
Progression Factor		1.00			1.00			1.45			1.00	
Incremental Delay, d2		0.5			1.2			0.9			3.8	
Delay (s)		10.9			12.8			18.8			18.7	
Level of Service		B			B			B			B	
Approach Delay (s)		10.9			12.8			18.8			18.7	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		16.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.62										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		63.3%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	9	21	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	9	21	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			254	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			254	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	97	98
cM capacity (veh/h)	1514			1460			663	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	20	28								
Volume Left	0	18	9	0								
Volume Right	39	0	0	18								
cSH	1700	1460	681	823								
Volume to Capacity	0.07	0.01	0.03	0.03								
Queue Length 95th (ft)	0	1	2	3								
Control Delay (s)	0.0	1.4	10.4	9.5								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	9.9									
Approach LOS			A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	189	12	19	188	0	0	0	0	12	18	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	189	12	19	188	0	0	0	0	12	18	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	188			201			504	421	195	421	427	188
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	188			201			504	421	195	421	427	188
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	98	96	91
cM capacity (veh/h)	1386			1371			421	517	846	537	513	854
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	201	207	21	83								
Volume Left	0	19	12	0								
Volume Right	12	0	0	74								
cSH	1700	1371	526	796								
Volume to Capacity	0.12	0.01	0.04	0.10								
Queue Length 95th (ft)	0	1	3	9								
Control Delay (s)	0.0	0.8	12.1	10.0								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	0.8	10.5									
Approach LOS			B									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			35.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	23	83	97	54	14	14
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	23	83	97	54	14	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		67	46	129	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		67	46	129	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	99		89	94	98	99
cM capacity (veh/h)	1623		891	834	751	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	23	83	151	14	14	
Volume Left	23	0	97	0	0	
Volume Right	0	83	0	0	14	
cSH	1623	1700	870	751	1085	
Volume to Capacity	0.01	0.05	0.17	0.02	0.01	
Queue Length 95th (ft)	1	0	16	1	1	
Control Delay (s)	7.2	0.0	10.0	9.9	8.4	
Lane LOS	A		B	A	A	
Approach Delay (s)	1.6		10.0	9.1		
Approach LOS			B	A		
Intersection Summary						
Average Delay			6.8			
Intersection Capacity Utilization			24.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑	↑↑			
Volume (vph)	334	1529	0	0	0	0	0	678	1172	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5040						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5040						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	1529	0	0	0	0	0	678	1172	0	0	0
RTOR Reduction (vph)	0	77	0	0	0	0	0	0	13	0	0	0
Lane Group Flow (vph)	0	1786	0	0	0	0	0	678	1159	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1792						2373	1300			
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.35							c0.42			
v/c Ratio		1.00						0.29	0.89			
Uniform Delay, d1		14.5						7.4	11.0			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		20.5						0.3	9.5			
Delay (s)		35.0						7.7	20.5			
Level of Service		C						A	C			
Approach Delay (s)		35.0			0.0			15.8			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		25.4			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.94										
Actuated Cycle Length (s)		45.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		86.7%			ICU Level of Service			E				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  						 		 	 	
Volume (vph)	298	622	369	0	0	0	0	581	39	106	82	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.96						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4811						1847		1770	1863	
Flt Permitted		0.99						1.00		0.30	1.00	
Satd. Flow (perm)		4811						1847		566	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	622	369	0	0	0	0	581	39	106	82	0
RTOR Reduction (vph)	0	161	0	0	0	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	1128	0	0	0	0	0	614	0	106	82	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1389						985		301	993	
v/s Ratio Prot								c0.33			0.04	
v/s Ratio Perm		0.23								0.19		
v/c Ratio		0.81						0.62		0.35	0.08	
Uniform Delay, d1		14.9						7.3		6.0	5.1	
Progression Factor		1.00						1.00		0.48	0.50	
Incremental Delay, d2		5.3						3.0		3.2	0.2	
Delay (s)		20.1						10.3		6.1	2.7	
Level of Service		C						B		A	A	
Approach Delay (s)		20.1			0.0			10.3			4.6	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		15.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.69										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		93.8%						ICU Level of Service		F		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	11	389	53	364	434	0	0	213	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.62	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1164	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	11	389	53	364	434	0	0	213	514
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	11	389	13	364	434	0	0	213	514
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	672	1076			1076	1583
v/s Ratio Prot				0.01	c0.21			0.23			0.11	
v/s Ratio Perm						0.01	c0.31					0.32
v/c Ratio				0.03	0.85	0.03	0.54	0.40			0.20	0.32
Uniform Delay, d1				12.9	16.2	13.0	5.8	5.2			4.5	0.0
Progression Factor				0.63	0.66	0.63	0.62	0.66			1.04	1.00
Incremental Delay, d2				0.1	17.7	0.2	2.2	0.8			0.4	0.5
Delay (s)				8.3	28.4	8.3	5.8	4.2			5.0	0.5
Level of Service				A	C	A	A	A			A	A
Approach Delay (s)		0.0			25.5			5.0			1.8	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.5									A
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			45.0									
Intersection Capacity Utilization			93.8%									F
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	1079	482	0	0	0	0	313	144	36	338	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4726	1362					1784			1854	
Flt Permitted		1.00	1.00					1.00			0.91	
Satd. Flow (perm)		4726	1362					1784			1698	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	41	1079	482	0	0	0	0	313	144	36	338	0
RTOR Reduction (vph)	0	28	170	0	0	0	0	32	0	0	0	0
Lane Group Flow (vph)	0	1217	187	0	0	0	0	425	0	0	374	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2205	635					634			603	
v/s Ratio Prot		c0.26						c0.24				
v/s Ratio Perm			0.14								0.22	
v/c Ratio		0.55	0.30					0.67			0.62	
Uniform Delay, d1		8.6	7.4					12.3			12.0	
Progression Factor		1.00	1.00					0.95			1.00	
Incremental Delay, d2		1.0	1.2					5.3			4.7	
Delay (s)		9.6	8.6					17.0			16.7	
Level of Service		A	A					B			B	
Approach Delay (s)		9.4			0.0			17.0			16.7	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			11.9					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			79.7%					ICU Level of Service			D	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	725	35	0	0	0	0	0	0	931	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3254	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3254	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	725	35	0	0	0	0	0	0	931	89	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	35	35	0
Lane Group Flow (vph)	0	749	0	0	0	0	0	0	0	430	520	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1556	
v/s Ratio Prot		c0.15										
v/s Ratio Perm										c0.27	0.16	
v/c Ratio		0.43								0.56	0.33	
Uniform Delay, d1		11.5								8.5	7.5	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.8								2.9	0.6	
Delay (s)		12.2								11.5	8.0	
Level of Service		B								B	A	
Approach Delay (s)		12.2			0.0			0.0			9.6	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		41.1%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	18	210	0	0	0	0	0	1047	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5065						4949	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5065						4949	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	18	210	0	0	0	0	0	1047	227
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	76	0
Lane Group Flow (vph)	0	0	0	0	212	0	0	0	0	0	1198	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1688						2419	
v/s Ratio Prot					c0.04						c0.24	
v/s Ratio Perm												
v/c Ratio					0.13						0.50	
Uniform Delay, d1					10.4						7.8	
Progression Factor					0.91						0.57	
Incremental Delay, d2					0.1						0.6	
Delay (s)					9.7						5.0	
Level of Service					A						A	
Approach Delay (s)		0.0			9.7			0.0			5.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.35									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			41.1%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1045	342	0	0	0	0	0	0	309	852	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.96									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6171									5019	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6171									5019	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1045	342	0	0	0	0	0	0	309	852	0
RTOR Reduction (vph)	0	63	0	0	0	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	1324	0	0	0	0	0	0	0	0	1148	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2194									2342	
v/s Ratio Prot		c0.21										
v/s Ratio Perm											0.23	
v/c Ratio		0.60									0.49	
Uniform Delay, d1		11.9									8.3	
Progression Factor		0.52									1.00	
Incremental Delay, d2		1.1									0.7	
Delay (s)		7.2									9.0	
Level of Service		A									A	
Approach Delay (s)		7.2			0.0			0.0			9.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.0				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			50.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	42	0	59	5	0	1	218	677	0	0	734	133
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	42	0	59	5	0	1	218	677	0	0	734	133
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1576	1914	434	1539	1980	338	867				677	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1576	1914	434	1539	1980	338	867				677	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	27	100	90	91	100	100	72				100	
cM capacity (veh/h)	58	48	570	55	44	657	772				911	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	42	59	218	338	338	489	378					
Volume Left	42	0	218	0	0	0	0					
Volume Right	0	59	0	0	0	0	133					
cSH	58	570	772	1700	1700	1700	1700					
Volume to Capacity	0.73	0.10	0.28	0.20	0.20	0.29	0.22					
Queue Length 95th (ft)	78	9	29	0	0	0	0					
Control Delay (s)	161.7	12.0	11.5	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	74.3			2.8	0.0							
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	77	136	732	847	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1696		1770	1863	1863	1583
Flt Permitted	0.98		0.22	1.00	1.00	1.00
Satd. Flow (perm)	1696		414	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	79	77	136	732	847	189
RTOR Reduction (vph)	37	0	0	0	0	113
Lane Group Flow (vph)	119	0	136	732	847	76
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	716		165	745	745	633
v/s Ratio Prot	c0.07			0.39	c0.45	
v/s Ratio Perm			0.33			0.05
v/c Ratio	0.17		0.82	0.98	1.14	0.12
Uniform Delay, d1	8.1		12.1	13.3	13.5	8.5
Progression Factor	1.00		1.00	1.00	0.91	0.78
Incremental Delay, d2	0.5		35.4	29.0	77.5	0.4
Delay (s)	8.6		47.4	42.3	89.8	7.0
Level of Service	A		D	D	F	A
Approach Delay (s)	8.6			43.1	74.7	
Approach LOS	A			D	E	

Intersection Summary

HCM 2000 Control Delay	56.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	1016	140	0	0	0	0	825	153	6	131	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.99						0.98			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4966						3456			1859	
Flt Permitted		0.99						1.00			0.95	
Satd. Flow (perm)		4966						3456			1776	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	246	1016	140	0	0	0	0	825	153	6	131	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	1372	0	0	0	0	0	944	0	0	137	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1152			592	
v/s Ratio Prot		c0.28						c0.27				
v/s Ratio Perm											0.08	
v/c Ratio		0.57						0.82			0.23	
Uniform Delay, d1		8.1						13.8			10.8	
Progression Factor		1.00						1.57			1.16	
Incremental Delay, d2		1.0						4.3			0.9	
Delay (s)		9.1						25.9			13.5	
Level of Service		A						C			B	
Approach Delay (s)		9.1			0.0			25.9			13.5	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		15.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.67										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		62.1%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	68	85	506	163	586	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.91	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					3048	1441		3501				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					3048	1441		3501				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	68	85	506	163	586	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	54	54	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	352	199	0	749	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1490	704		1167				
v/s Ratio Prot					0.12			c0.21				
v/s Ratio Perm						c0.14						
v/c Ratio					0.24	0.28		0.64				
Uniform Delay, d1					6.6	6.8		12.7				
Progression Factor					1.00	1.00		0.81				
Incremental Delay, d2					0.4	1.0		1.7				
Delay (s)					7.0	7.8		12.0				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.3			12.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.8				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			48.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	1035	0	0	0	0	0	1017	161	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6365						4981				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6365						4981				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	1035	0	0	0	0	0	1017	161	0	0	0
RTOR Reduction (vph)	0	20	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1176	0	0	0	0	0	1154	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2687						1992				
v/s Ratio Prot								c0.23				
v/s Ratio Perm		0.18										
v/c Ratio		0.44						0.58				
Uniform Delay, d1		9.2						10.5				
Progression Factor		1.06						0.86				
Incremental Delay, d2		0.4						1.1				
Delay (s)		10.2						10.2				
Level of Service		B						B				
Approach Delay (s)		10.2			0.0			10.2			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		10.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		69.9%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	74	859	57	56	687	623	39	19	27	750	40	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	859	57	56	687	623	39	19	27	750	40	97
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	990	743	623	85	887							
Volume Left (vph)	74	56	0	39	750							
Volume Right (vph)	57	0	623	27	97							
Hadj (s)	0.01	0.07	-0.67	-0.06	0.14							
Departure Headway (s)	7.7	8.1	7.4	9.5	7.7							
Degree Utilization, x	2.11	1.68	1.28	0.22	1.90							
Capacity (veh/h)	477	448	496	374	476							
Control Delay (s)	525.0	333.2	162.2	15.2	430.2							
Approach Delay (s)	525.0	255.2		15.2	430.2							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			376.0									
Level of Service			F									
Intersection Capacity Utilization			158.2%	ICU Level of Service				H				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	216	59	166	581	113	33	526	49	89	768	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	235	64	180	632	123	36	572	53	97	835	180
RTOR Reduction (vph)	0	0	48	0	15	0	0	6	0	0	0	155
Lane Group Flow (vph)	263	235	16	180	740	0	36	619	0	97	835	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Effective Green, g (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Actuated g/C Ratio	0.14	0.24	0.24	0.16	0.27		0.06	0.30		0.09	0.34	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	865	387	290	927		97	1064		167	1217	222
v/s Ratio Prot	0.08	0.07		c0.10	c0.21		0.02	0.18		c0.05	c0.24	0.02
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.27	0.04	0.62	0.80		0.37	0.58		0.58	0.69	0.11
Uniform Delay, d1	33.4	25.5	24.0	32.4	28.4		38.0	24.5		36.2	23.5	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.0	4.1	4.8		2.4	2.3		5.1	3.2	0.2
Delay (s)	34.7	25.7	24.1	36.5	33.2		40.4	26.8		41.2	26.6	31.5
Level of Service	C	C	C	D	C		D	C		D	C	C
Approach Delay (s)		29.7			33.9			27.6			28.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			64.5%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	321	448	315	89	240	170	87	529	39	130	1133	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	487	342	97	261	185	95	575	42	141	1232	129
RTOR Reduction (vph)	0	115	0	0	141	0	0	0	30	0	0	70
Lane Group Flow (vph)	349	714	0	97	305	0	95	575	12	141	1232	59
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Effective Green, g (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Actuated g/C Ratio	0.24	0.31		0.10	0.17		0.07	0.30	0.30	0.10	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	1028		177	559		254	1050	469	359	1158	518
v/s Ratio Prot	c0.20	c0.21		0.05	0.09		0.03	0.16		c0.04	c0.35	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.82	0.69		0.55	0.55		0.37	0.55	0.03	0.39	1.06	0.11
Uniform Delay, d1	30.4	25.8		36.4	32.3		37.4	25.1	21.2	35.5	28.6	19.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	2.1		3.4	1.1		0.9	2.1	0.1	0.7	45.2	0.4
Delay (s)	41.9	27.8		39.8	33.4		38.4	27.1	21.3	36.2	73.8	20.4
Level of Service	D	C		D	C		D	C	C	D	E	C
Approach Delay (s)		32.0			34.6			28.3			65.7	
Approach LOS		C			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			44.5				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			84.9				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			77.9%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Residential Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	25	18	268	64	51	33	7	33	79	96
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	25	18	268	64	51	33	7	33	79	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	332			99			440	502	50	444	483	166
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	332			99			440	502	50	444	483	166
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			86	93	99	93	83	89
cM capacity (veh/h)	1224			1492			377	455	1008	455	467	849
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	62	152	198	91	33	53	122				
Volume Left	24	0	18	0	51	33	0	0				
Volume Right	0	25	0	64	7	0	0	96				
cSH	1224	1700	1492	1700	424	455	467	722				
Volume to Capacity	0.02	0.04	0.01	0.12	0.21	0.07	0.11	0.17				
Queue Length 95th (ft)	1	0	1	0	20	6	9	15				
Control Delay (s)	3.2	0.0	1.0	0.0	15.8	13.5	13.7	11.0				
Lane LOS	A		A		C	B	B	B				
Approach Delay (s)	1.6		0.4		15.8	12.1						
Approach LOS					C	B						
Intersection Summary												
Average Delay			5.6									
Intersection Capacity Utilization			37.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	203	15	0	0	0	0	110	24	63	221	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5029						3444		1770	5085	
Flt Permitted		1.00						1.00		0.67	1.00	
Satd. Flow (perm)		5029						3444		1242	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	203	15	0	0	0	0	110	24	63	221	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	216	0	0	0	0	0	118	0	63	221	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2883						1102		397	1627	
v/s Ratio Prot								0.03			0.04	
v/s Ratio Perm		0.04								0.05		
v/c Ratio		0.07						0.11		0.16	0.14	
Uniform Delay, d1		7.1						18.0		18.3	18.1	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.1						0.2		0.9	0.2	
Delay (s)		7.2						18.1		19.1	18.3	
Level of Service		A						B		B	B	
Approach Delay (s)		7.2			0.0			18.1			18.5	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.10										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		28.2%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	97	259	250	11	29	99	0	0	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.96
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3492	1583		1770	3539			4891
Flt Permitted					0.99	1.00		0.59	1.00			1.00
Satd. Flow (perm)					3492	1583		1108	3539			4891
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	97	259	250	11	29	99	0	0	181
RTOR Reduction (vph)	0	0	0	0	0	95	0	0	0	0	0	43
Lane Group Flow (vph)	0	0	0	0	356	155	0	40	99	0	0	200
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2165	981		332	1061			1467
v/s Ratio Prot									0.03			c0.04
v/s Ratio Perm					0.10	0.10		0.04				
v/c Ratio					0.16	0.16		0.12	0.09			0.14
Uniform Delay, d1					8.0	8.0		25.4	25.2			25.5
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.2	0.3		0.7	0.2			0.2
Delay (s)					8.2	8.3		26.2	25.4			25.7
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.3				25.6			25.7
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			15.0		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			28.2%		ICU Level of Service				A			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis 3: Market Street & 6th Street

7/24/2013

Movement	SBR
App Configurations	
Volume (vph)	62
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	62
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	339	42	53	749	46	177	175	19	50	100	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5001		1770	5041		1770	3487		1770	4716	
Flt Permitted	0.23	1.00		0.50	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	425	5001		926	5041		1770	3487		1770	4716	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	53	339	42	53	749	46	177	175	19	50	100	94
RTOR Reduction (vph)	0	20	0	0	9	0	0	10	0	0	82	0
Lane Group Flow (vph)	53	361	0	53	786	0	177	184	0	50	112	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	116	1375		254	1386		796	1569		221	589	
v/s Ratio Prot		0.07			c0.16		c0.10	0.05		c0.03	0.02	
v/s Ratio Perm	0.12			0.06								
v/c Ratio	0.46	0.26		0.21	0.57		0.22	0.12		0.23	0.19	
Uniform Delay, d1	24.0	22.7		22.3	24.9		13.4	12.8		31.5	31.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.4	0.5		1.9	1.7		0.6	0.2		2.4	0.7	
Delay (s)	36.5	23.1		24.2	26.6		14.1	12.9		33.9	32.1	
Level of Service	D	C		C	C		B	B		C	C	
Approach Delay (s)		24.8			26.4			13.5			32.5	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			24.3				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			46.0%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	159	883	479	31	92	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6030	5039		3287	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6030	5039		3287	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	159	883	479	31	92	69
RTOR Reduction (vph)	103	53	9	0	0	0
Lane Group Flow (vph)	40	846	501	0	161	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1688	1410		920	
v/s Ratio Prot	0.03	c0.14	c0.10		c0.05	
v/s Ratio Perm						
v/c Ratio	0.10	0.50	0.36		0.17	
Uniform Delay, d1	20.0	22.6	21.6		20.4	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	1.1	0.7		0.4	
Delay (s)	20.5	23.7	22.3		20.9	
Level of Service	C	C	C		C	
Approach Delay (s)		23.2	22.3		20.9	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			22.7		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.34			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			37.5%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	239	289	43	567	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3216	1441	1433	6033				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3216	1441	1433	6033				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	239	289	43	567	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	79	110	17	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	284	55	22	564	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1072	480	802	3378				
v/s Ratio Prot					c0.09							
v/s Ratio Perm						0.04	0.02	0.09				
v/c Ratio					0.26	0.11	0.03	0.17				
Uniform Delay, d1					18.3	17.3	7.4	8.0				
Progression Factor					1.00	1.00	0.29	0.43				
Incremental Delay, d2					0.6	0.5	0.1	0.1				
Delay (s)					18.9	17.8	2.2	3.6				
Level of Service					B	B	A	A				
Approach Delay (s)		0.0			18.5			3.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.5		HCM 2000 Level of Service						B	
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			26.8%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	71	51	8	138	113	13	54	0	330	151	66
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	71	51	8	138	113	13	54	0	330	151	66
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	130	259	40	27	406	142						
Volume Left (vph)	8	8	13	0	330	0						
Volume Right (vph)	51	113	0	0	0	66						
Hadj (s)	-0.19	-0.22	0.20	0.03	0.44	-0.29						
Departure Headway (s)	5.8	5.5	6.7	6.5	6.2	5.4						
Degree Utilization, x	0.21	0.39	0.07	0.05	0.70	0.21						
Capacity (veh/h)	571	614	479	499	567	640						
Control Delay (s)	10.3	12.0	9.0	8.6	21.0	8.7						
Approach Delay (s)	10.3	12.0	8.8	17.8								
Approach LOS	B	B	A	C								
Intersection Summary												
Delay			14.8									
Level of Service			B									
Intersection Capacity Utilization			48.2%	ICU Level of Service				A				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	2	7	22	26	16	405	33	103	429	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	2	2	7	22	26	16	405	33	103	429	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	930	1129	238	877	1136	219	477			438		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	930	1129	238	877	1136	219	477			438		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	100	97	88	97	99			91		
cM capacity (veh/h)	179	181	763	221	179	785	1082			1118		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	10	55	218	236	318	262						
Volume Left	6	7	16	0	103	0						
Volume Right	2	26	0	33	0	48						
cSH	212	293	1082	1700	1118	1700						
Volume to Capacity	0.05	0.19	0.01	0.14	0.09	0.15						
Queue Length 95th (ft)	4	17	1	0	8	0						
Control Delay (s)	22.8	20.1	0.7	0.0	3.4	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	22.8	20.1	0.4		1.9							
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			42.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	5	54	54	46	382	30	102	393	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.94			0.99			0.96	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1774			1739			3487			3379	
Flt Permitted		0.89			0.99			0.86			0.82	
Satd. Flow (perm)		1607			1728			3017			2788	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	5	54	54	46	382	30	102	393	168
RTOR Reduction (vph)	0	14	0	0	36	0	0	9	0	0	61	0
Lane Group Flow (vph)	0	79	0	0	77	0	0	449	0	0	602	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		525			565			1590			1470	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.04			0.15			c0.22	
v/c Ratio		0.15			0.14			0.28			0.41	
Uniform Delay, d1		13.1			13.0			7.2			7.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.5			0.4			0.8	
Delay (s)		13.7			13.5			7.7			8.7	
Level of Service		B			B			A			A	
Approach Delay (s)		13.7			13.5			7.7			8.7	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.1			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		53.9%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	931	179	99	0	0	0	0	329	553	548	381	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	931	179	99	0	0	0	0	329	553	548	381	0
RTOR Reduction (vph)	0	0	71	0	0	0	0	0	202	0	0	0
Lane Group Flow (vph)	465	645	28	0	0	0	0	329	351	548	381	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	916	443					990	443	961	521	
v/s Ratio Prot	c0.29	0.20	0.02					0.09	c0.22	0.16	c0.20	
v/s Ratio Perm												
v/c Ratio	1.03	0.99dl	0.06					0.33	0.79	0.57	0.73	
Uniform Delay, d1	27.0	24.2	19.8					21.4	25.0	23.1	24.4	
Progression Factor	1.00	1.00	1.04					1.00	1.00	1.02	1.02	
Incremental Delay, d2	51.3	4.5	0.3					0.9	13.6	2.4	8.5	
Delay (s)	78.3	28.7	20.9					22.3	38.6	25.9	33.4	
Level of Service	E	C	C					C	D	C	C	
Approach Delay (s)		47.1			0.0			32.5			29.0	
Approach LOS		D			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			37.3		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			88.3%		ICU Level of Service					E		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	335	160	533	69	482	0	0	374	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.91	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3072	1441	1770	3539			5002	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3072	1441	1770	3539			5002	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	335	160	533	69	482	0	0	374	46
RTOR Reduction (vph)	0	0	0	0	182	181	0	0	0	0	20	0
Lane Group Flow (vph)	0	0	0	335	245	85	69	482	0	0	400	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	983	461	212	2029			2000	
v/s Ratio Prot				c0.19	0.08	0.06	c0.04	c0.14			0.08	
v/s Ratio Perm												
v/c Ratio				0.59	0.25	0.18	0.33	0.24			0.20	
Uniform Delay, d1				21.4	18.8	18.4	30.2	7.9			14.7	
Progression Factor				1.00	1.00	1.00	0.84	0.15			1.00	
Incremental Delay, d2				4.5	0.6	0.9	2.7	0.2			0.2	
Delay (s)				25.9	19.5	19.3	28.1	1.4			14.9	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			21.5			4.7			14.9	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			15.5									HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio			0.39									B
Actuated Cycle Length (s)			75.0									Sum of lost time (s)
Intersection Capacity Utilization			88.3%									12.0
Analysis Period (min)			15									ICU Level of Service
c Critical Lane Group												E

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	632	130	0	0	0	0	424	83	105	544	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		5056	1583					3452		1770	3539	
Flt Permitted		0.99	1.00					1.00		0.33	1.00	
Satd. Flow (perm)		5056	1583					3452		616	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	632	130	0	0	0	0	424	83	105	544	0
RTOR Reduction (vph)	0	0	87	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	716	43	0	0	0	0	480	0	105	544	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		20.0	20.0					20.0		32.0	32.0	
Effective Green, g (s)		20.0	20.0					20.0		32.0	32.0	
Actuated g/C Ratio		0.33	0.33					0.33		0.53	0.53	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)		1685	527					1150		482	1887	
v/s Ratio Prot		c0.14						c0.14		0.03	c0.15	
v/s Ratio Perm			0.03							0.09		
v/c Ratio		0.42	0.08					0.42		0.22	0.29	
Uniform Delay, d1		15.5	13.7					15.5		7.4	7.7	
Progression Factor		1.00	1.00					1.00		0.79	0.68	
Incremental Delay, d2		0.8	0.3					1.1		1.0	0.4	
Delay (s)		16.3	14.0					16.6		6.8	5.6	
Level of Service		B	B					B		A	A	
Approach Delay (s)		16.0			0.0			16.6			5.8	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		47.2%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	150	500	106	98	376	0	0	481	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3431		1770	3539			5024	
Flt Permitted					0.99		0.36	1.00			1.00	
Satd. Flow (perm)					3431		669	3539			5024	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	150	500	106	98	376	0	0	481	42
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	734	0	98	376	0	0	506	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1143		503	1887			1674	
v/s Ratio Prot					c0.21		0.03	c0.11			c0.10	
v/s Ratio Perm							0.08					
v/c Ratio					0.64		0.19	0.20			0.30	
Uniform Delay, d1					17.0		7.1	7.3			14.8	
Progression Factor					1.00		0.67	0.63			1.92	
Incremental Delay, d2					2.8		0.8	0.2			0.4	
Delay (s)					19.7		5.5	4.8			28.8	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			19.7			5.0			28.8	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.5				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			47.2%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	278	84	1	327	111	0	367	29	0	647	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3416			3405			3500			3471	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		3255			3250			3500			3471	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	278	84	1	327	111	0	367	29	0	647	95
RTOR Reduction (vph)	0	46	0	0	56	0	0	10	0	0	19	0
Lane Group Flow (vph)	0	319	0	0	383	0	0	386	0	0	723	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1464			1462			1458			1446	
v/s Ratio Prot								0.11			c0.21	
v/s Ratio Perm		0.10			c0.12							
v/c Ratio		0.22			0.26			0.26			0.50	
Uniform Delay, d1		10.1			10.3			11.5			12.9	
Progression Factor		1.00			1.00			1.77			1.00	
Incremental Delay, d2		0.3			0.4			0.4			1.2	
Delay (s)		10.4			10.7			20.7			14.1	
Level of Service		B			B			C			B	
Approach Delay (s)		10.4			10.7			20.7			14.1	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		40.9%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	26	15	5	21	0	0	0	0	14	14	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	5	21	0	0	0	0	14	14	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	21			41			84	64	34	64	72	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			41			84	64	34	64	72	21
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	98	98	99
cM capacity (veh/h)	1595			1568			879	824	1040	927	816	1056
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	26	21	19								
Volume Left	0	5	14	0								
Volume Right	15	0	0	12								
cSH	1700	1568	887	953								
Volume to Capacity	0.02	0.00	0.02	0.02								
Queue Length 95th (ft)	0	0	2	2								
Control Delay (s)	0.0	1.4	9.2	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.0									
Approach LOS			A									
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			15.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	28	13	15	35	0	0	0	0	7	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	28	13	15	35	0	0	0	0	7	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	35			41			103	100	34	100	106	35
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			41			103	100	34	100	106	35
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1576			1568			867	783	1039	876	777	1038
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	50	8	4								
Volume Left	0	15	7	0								
Volume Right	13	0	0	2								
cSH	1700	1568	856	907								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	2.2	9.2	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	2.2	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			19.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	75	157	195	77	54	74
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	75	157	195	77	54	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		251	150	307	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		251	150	307	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	95		67	89	91	93
cM capacity (veh/h)	1623		587	707	579	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	75	157	272	54	74	
Volume Left	75	0	195	0	0	
Volume Right	0	157	0	0	74	
cSH	1623	1700	616	579	1085	
Volume to Capacity	0.05	0.09	0.44	0.09	0.07	
Queue Length 95th (ft)	4	0	56	8	5	
Control Delay (s)	7.3	0.0	15.4	11.9	8.6	
Lane LOS	A		C	B	A	
Approach Delay (s)	2.4		15.4	10.0		
Approach LOS			C	A		
Intersection Summary						
Average Delay			9.5			
Intersection Capacity Utilization			32.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	691	0	0	0	0	0	613	1376	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5037						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5037						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	691	0	0	0	0	0	613	1376	0	0	0
RTOR Reduction (vph)	0	88	0	0	0	0	0	0	77	0	0	0
Lane Group Flow (vph)	0	768	0	0	0	0	0	613	1299	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1790						2373	1300			
v/s Ratio Prot								0.12				
v/s Ratio Perm		0.15							c0.47			
v/c Ratio		0.43						0.26	1.00			
Uniform Delay, d1		11.0						7.3	12.0			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.8						0.3	24.7			
Delay (s)		11.8						7.5	36.7			
Level of Service		B						A	D			
Approach Delay (s)		11.8			0.0			27.7			0.0	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay		22.9						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.75										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		93.8%						ICU Level of Service	F			
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	438	491	0	0	0	0	259	41	66	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4724						1828		1770	1863	
Flt Permitted		0.99						1.00		0.57	1.00	
Satd. Flow (perm)		4724						1828		1066	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	311	438	491	0	0	0	0	259	41	66	89	0
RTOR Reduction (vph)	0	264	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	0	976	0	0	0	0	0	287	0	66	89	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1364						974		568	993	
v/s Ratio Prot								c0.16			0.05	
v/s Ratio Perm		0.21								0.06		
v/c Ratio		0.72						0.30		0.12	0.09	
Uniform Delay, d1		14.3						5.8		5.2	5.1	
Progression Factor		1.00						1.00		0.28	0.29	
Incremental Delay, d2		3.2						0.8		0.4	0.2	
Delay (s)		17.6						6.6		1.9	1.7	
Level of Service		B						A		A	A	
Approach Delay (s)		17.6			0.0			6.6			1.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		14.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		71.4%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	311	56	321	281	0	0	196	1408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.63	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1182	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	311	56	321	281	0	0	196	1408
RTOR Reduction (vph)	0	0	0	0	0	42	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	311	14	321	281	0	0	196	1408
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	682	1076			1076	1583
v/s Ratio Prot				0.00	0.17			0.15			0.11	
v/s Ratio Perm						0.01	0.27					c0.89
v/c Ratio				0.00	0.68	0.04	0.47	0.26			0.18	0.89
Uniform Delay, d1				12.9	15.4	13.0	5.5	4.7			4.5	0.0
Progression Factor				0.71	0.70	0.74	1.01	0.95			1.68	1.00
Incremental Delay, d2				0.0	7.9	0.2	2.0	0.5			0.3	5.9
Delay (s)				9.2	18.7	9.8	7.6	5.0			7.8	5.9
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			17.3			6.4			6.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.8		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			71.4%		ICU Level of Service						C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	529	1328	0	0	0	0	354	90	28	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4410	1362					1812			1856	
Flt Permitted		1.00	1.00					1.00			0.95	
Satd. Flow (perm)		4410	1362					1812			1773	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	529	1328	0	0	0	0	354	90	28	356	0
RTOR Reduction (vph)	0	158	158	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	1073	506	0	0	0	0	423	0	0	384	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2058	635					644			630	
v/s Ratio Prot		0.24						c0.23				
v/s Ratio Perm			c0.37								0.22	
v/c Ratio		0.52	0.80					0.66			0.61	
Uniform Delay, d1		8.5	10.2					12.2			11.9	
Progression Factor		1.00	1.00					0.69			1.00	
Incremental Delay, d2		0.9	10.0					5.1			4.4	
Delay (s)		9.4	20.2					13.5			16.3	
Level of Service		A	C					B			B	
Approach Delay (s)		13.2			0.0			13.5			16.3	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.7					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			81.8%					ICU Level of Service			D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↱	↱↑	
Volume (vph)	0	547	22	0	0	0	0	0	0	589	134	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5056								1610	3278	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5056								1610	3278	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	547	22	0	0	0	0	0	0	589	134	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	71	71	0
Lane Group Flow (vph)	0	560	0	0	0	0	0	0	0	223	358	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1567	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.14	0.11	
v/c Ratio		0.32								0.29	0.23	
Uniform Delay, d1		11.0								7.3	7.0	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								0.9	0.3	
Delay (s)		11.5								8.2	7.4	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			7.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.4			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.30										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		31.6%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	34	180	0	0	0	0	0	738	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5045						4896	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5045						4896	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	34	180	0	0	0	0	0	738	244
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	0	0	0	191	0	0	0	0	0	857	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1681						2393	
v/s Ratio Prot					c0.04						c0.18	
v/s Ratio Perm												
v/c Ratio					0.11						0.36	
Uniform Delay, d1					10.4						7.1	
Progression Factor					1.01						0.57	
Incremental Delay, d2					0.1						0.4	
Delay (s)					10.6						4.5	
Level of Service					B						A	
Approach Delay (s)		0.0			10.6			0.0			4.5	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.6		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			31.6%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	435	254	0	0	0	0	0	0	142	707	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6054									5043	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6054									5043	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	435	254	0	0	0	0	0	0	142	707	0
RTOR Reduction (vph)	0	96	0	0	0	0	0	0	0	0	67	0
Lane Group Flow (vph)	0	593	0	0	0	0	0	0	0	0	782	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2152									2353	
v/s Ratio Prot		c0.10										
v/s Ratio Perm											0.16	
v/c Ratio		0.28									0.33	
Uniform Delay, d1		10.4									7.6	
Progression Factor		0.60									1.00	
Incremental Delay, d2		0.3									0.4	
Delay (s)		6.5									8.0	
Level of Service		A									A	
Approach Delay (s)		6.5			0.0			0.0			8.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.3				HCM 2000 Level of Service				A	
HCM 2000 Volume to Capacity ratio			0.31									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			33.8%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	197	0	79	2	0	0	382	579	0	0	325	164
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	197	0	79	2	0	0	382	579	0	0	325	164
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1460	1750	244	1584	1832	290	489			579		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1460	1750	244	1584	1832	290	489			579		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	90	96	100	100	64			100		
cM capacity (veh/h)	65	55	756	47	49	707	1070			991		
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	197	79	382	290	290	217	272					
Volume Left	197	0	382	0	0	0	0					
Volume Right	0	79	0	0	0	0	164					
cSH	65	756	1070	1700	1700	1700	1700					
Volume to Capacity	3.02	0.10	0.36	0.17	0.17	0.13	0.16					
Queue Length 95th (ft)	Err	9	41	0	0	0	0					
Control Delay (s)	Err	10.3	10.2	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	7139.9		4.1			0.0						
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	71	94	153	821	571	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1683		1770	1863	1863	1583
Flt Permitted	0.98		0.24	1.00	1.00	1.00
Satd. Flow (perm)	1683		440	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	71	94	153	821	571	98
RTOR Reduction (vph)	54	0	0	0	0	59
Lane Group Flow (vph)	111	0	153	821	571	39
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	710		176	745	745	633
v/s Ratio Prot	c0.07			c0.44	0.31	
v/s Ratio Perm			0.35			0.02
v/c Ratio	0.16		0.87	1.10	0.77	0.06
Uniform Delay, d1	8.0		12.4	13.5	11.7	8.3
Progression Factor	1.00		1.00	1.00	0.83	1.05
Incremental Delay, d2	0.5		40.3	64.5	7.3	0.2
Delay (s)	8.5		52.8	78.0	17.0	8.9
Level of Service	A		D	E	B	A
Approach Delay (s)	8.5			74.0	15.8	
Approach LOS	A			E	B	

Intersection Summary

HCM 2000 Control Delay	46.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	682	155	0	0	0	0	624	284	3	225	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.95			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3373			1862	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3373			1840	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	269	682	155	0	0	0	0	624	284	3	225	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	117	0	0	0	0
Lane Group Flow (vph)	0	1056	0	0	0	0	0	791	0	0	228	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1124			613	
v/s Ratio Prot		c0.21						c0.23				
v/s Ratio Perm											0.12	
v/c Ratio		0.44						0.70			0.37	
Uniform Delay, d1		7.5						13.1			11.4	
Progression Factor		1.00						1.85			1.19	
Incremental Delay, d2		0.6						0.3			1.7	
Delay (s)		8.1						24.5			15.3	
Level of Service		A						C			B	
Approach Delay (s)		8.1			0.0			24.5			15.3	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		15.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.55										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		55.1%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	145	61	527	150	498	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.92	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3057	1441		3499				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3057	1441		3499				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	145	61	527	150	498	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	78	78	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	392	185	0	648	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1494	704		1166				
v/s Ratio Prot					0.13			c0.19				
v/s Ratio Perm						c0.13						
v/c Ratio					0.26	0.26		0.56				
Uniform Delay, d1					6.7	6.7		12.3				
Progression Factor					1.00	1.00		0.83				
Incremental Delay, d2					0.4	0.9		1.5				
Delay (s)					7.2	7.7		11.7				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.3			11.7			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.4				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			46.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	416	0	0	0	0	0	948	102	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6342						5011				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6342						5011				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	416	0	0	0	0	0	948	102	0	0	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	29	0	0	0	0
Lane Group Flow (vph)	0	498	0	0	0	0	0	1021	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2677						2004				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.08										
v/c Ratio		0.19						0.51				
Uniform Delay, d1		8.2						10.2				
Progression Factor		1.04						0.83				
Incremental Delay, d2		0.1						0.9				
Delay (s)		8.6						9.3				
Level of Service		A						A				
Approach Delay (s)		8.6			0.0			9.3			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.1						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		67.3%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	431	19	20	649	436	75	45	56	390	16	137
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	431	19	20	649	436	75	45	56	390	16	137
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	520	669	436	176	543							
Volume Left (vph)	70	20	0	75	390							
Volume Right (vph)	19	0	436	56	137							
Hadj (s)	0.04	0.05	-0.67	-0.07	0.03							
Departure Headway (s)	8.3	8.6	7.9	9.5	8.2							
Degree Utilization, x	1.20	1.60	0.95	0.46	1.23							
Capacity (veh/h)	439	423	452	367	436							
Control Delay (s)	136.2	300.5	58.6	20.3	149.4							
Approach Delay (s)	136.2	205.0		20.3	149.4							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay	163.0											
Level of Service	F											
Intersection Capacity Utilization	110.4%				ICU Level of Service				H			
Analysis Period (min)	15											

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	193	68	38	334	106	77	862	37	58	637	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	292	210	74	41	363	115	84	937	40	63	692	374
RTOR Reduction (vph)	0	0	50	0	31	0	0	3	0	0	0	315
Lane Group Flow (vph)	292	210	24	41	447	0	84	974	0	63	692	59
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Effective Green, g (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Actuated g/C Ratio	0.16	0.33	0.33	0.06	0.23		0.09	0.32		0.09	0.32	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	538	1155	516	103	778		164	1139		153	1123	248
v/s Ratio Prot	c0.09	0.06		0.02	c0.13		c0.05	c0.28		0.04	0.20	0.04
v/s Ratio Perm			0.02									
v/c Ratio	0.54	0.18	0.05	0.40	0.57		0.51	0.86		0.41	0.62	0.24
Uniform Delay, d1	30.5	18.9	18.1	35.6	26.9		33.9	24.8		33.9	22.7	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	2.5	1.0		2.7	8.3		1.8	2.5	0.5
Delay (s)	31.6	19.0	18.1	38.1	27.9		36.5	33.1		35.7	25.2	29.4
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		25.3			28.7			33.3			27.2	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			29.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			78.4			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			62.0%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	283	124	65	338	162	119	897	47	125	511	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	308	135	71	367	176	129	975	51	136	555	62
RTOR Reduction (vph)	0	46	0	0	59	0	0	0	35	0	0	43
Lane Group Flow (vph)	165	397	0	71	484	0	129	975	16	136	555	19
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Effective Green, g (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Actuated g/C Ratio	0.16	0.30		0.09	0.22		0.11	0.30	0.30	0.11	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	996		161	757		364	1079	482	373	1088	486
v/s Ratio Prot	c0.09	0.12		0.04	c0.14		0.04	c0.28		c0.04	0.16	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.58	0.40		0.44	0.64		0.35	0.90	0.03	0.36	0.51	0.04
Uniform Delay, d1	31.0	22.5		34.4	28.1		33.2	26.7	19.5	33.1	22.8	19.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.3		1.9	1.8		0.6	12.2	0.1	0.6	1.7	0.2
Delay (s)	33.9	22.8		36.3	29.8		33.8	38.9	19.6	33.7	24.5	19.6
Level of Service	C	C		D	C		C	D	B	C	C	B
Approach Delay (s)		25.8			30.6			37.5			25.7	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			31.0			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			64.6%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Residential Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	277	22	16	166	101	50	138	30	50	61	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	53	277	22	16	166	101	50	138	30	50	61	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	267			299			580	693	150	592	654	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	267			299			580	693	150	592	654	134
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			84	60	97	80	83	96
cM capacity (veh/h)	1294			1259			318	346	870	250	364	891
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	192	160	99	184	218	50	41	60				
Volume Left	53	0	16	0	50	50	0	0				
Volume Right	0	22	0	101	30	0	0	40				
cSH	1294	1700	1259	1700	369	250	364	599				
Volume to Capacity	0.04	0.09	0.01	0.11	0.59	0.20	0.11	0.10				
Queue Length 95th (ft)	3	0	1	0	91	18	9	8				
Control Delay (s)	2.4	0.0	1.4	0.0	27.9	23.0	16.1	11.7				
Lane LOS	A		A		D	C	C	B				
Approach Delay (s)	1.3		0.5		27.9	16.6						
Approach LOS					D	C						
Intersection Summary												
Average Delay			9.2									
Intersection Capacity Utilization			46.7%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	488	22	0	0	0	0	271	32	105	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5050						3483		1770	5085	
Flt Permitted		1.00						1.00		0.54	1.00	
Satd. Flow (perm)		5050						3483		1014	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	488	22	0	0	0	0	271	32	105	110	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	510	0	0	0	0	0	291	0	105	110	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2895						1114		324	1627	
v/s Ratio Prot								0.08			0.02	
v/s Ratio Perm		0.10								c0.10		
v/c Ratio		0.18						0.26		0.32	0.07	
Uniform Delay, d1		7.6						18.9		19.3	17.7	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.1						0.6		2.6	0.1	
Delay (s)		7.7						19.5		22.0	17.8	
Level of Service		A						B		C	B	
Approach Delay (s)		7.7			0.0			19.5			19.8	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.23										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		34.4%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	32	156	284	17	42	242	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.97
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	3539			4958
Flt Permitted					0.99	1.00		0.62	1.00			1.00
Satd. Flow (perm)					3509	1583		1146	3539			4958
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	32	156	284	17	42	242	0	0	174
RTOR Reduction (vph)	0	0	0	0	0	108	0	0	0	0	0	25
Lane Group Flow (vph)	0	0	0	0	188	176	0	59	242	0	0	185
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2175	981		343	1061			1487
v/s Ratio Prot									c0.07			0.04
v/s Ratio Perm					0.05	c0.11		0.05				
v/c Ratio					0.09	0.18		0.17	0.23			0.12
Uniform Delay, d1					7.6	8.1		25.8	26.3			25.4
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.1	0.4		1.1	0.5			0.2
Delay (s)					7.7	8.5		26.9	26.8			25.6
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.2				26.8			25.6
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			17.6		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			34.4%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

3: Market Street & 6th Street



Lane Configurations

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	991	89	44	424	46	216	263	54	66	116	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.97		1.00	0.94	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5022		1770	5011		1770	3449		1770	4788	
Satd. Flow (perm)	795	5022		339	5011		1770	3449		1770	4788	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	991	89	44	424	46	216	263	54	66	116	74
RTOR Reduction (vph)	0	13	0	0	17	0	0	21	0	0	65	0
Lane Group Flow (vph)	132	1067	0	44	453	0	216	296	0	66	125	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	218	1381		93	1378		796	1552		221	598	
v/s Ratio Prot		c0.21			0.09		c0.12	0.09		c0.04	0.03	
v/s Ratio Perm	0.17			0.13								
v/c Ratio	0.61	0.77		0.47	0.33		0.27	0.19		0.30	0.21	
Uniform Delay, d1	25.2	26.7		24.2	23.1		13.8	13.2		31.8	31.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.9	4.3		16.3	0.6		0.8	0.3		3.4	0.8	
Delay (s)	37.1	30.9		40.4	23.8		14.6	13.5		35.2	32.2	
Level of Service	D	C		D	C		B	B		D	C	
Approach Delay (s)		31.6			25.2			14.0			33.0	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			26.7				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			53.7%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	194	613	1384	44	76	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6017	5062		3316	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6017	5062		3316	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	613	1384	44	76	41
RTOR Reduction (vph)	112	53	4	0	0	0
Lane Group Flow (vph)	43	599	1424	0	117	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1684	1417		928	
v/s Ratio Prot	0.03	c0.10	c0.28		c0.04	
v/s Ratio Perm						
v/c Ratio	0.11	0.36	1.00		0.13	
Uniform Delay, d1	20.0	21.6	27.0		20.2	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.6	25.0		0.3	
Delay (s)	20.6	22.2	52.0		20.4	
Level of Service	C	C	D		C	
Approach Delay (s)		21.9	52.0		20.4	
Approach LOS		C	D		C	
Intersection Summary						
HCM 2000 Control Delay			40.1		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.50			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			50.6%		ICU Level of Service	A
Analysis Period (min)			15			

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	249	802	36	1769	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3076	1441	1433	6035				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3076	1441	1433	6035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	249	802	36	1769	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	10	14	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	640	391	18	1766	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1025	480	802	3379				
v/s Ratio Prot					0.21							
v/s Ratio Perm						c0.27	0.01	0.29				
v/c Ratio					0.62	0.81	0.02	0.52				
Uniform Delay, d1					21.0	22.9	7.4	10.3				
Progression Factor					1.00	1.00	0.02	0.20				
Incremental Delay, d2					2.9	14.1	0.0	0.3				
Delay (s)					23.9	37.0	0.2	2.4				
Level of Service					C	D	A	A				
Approach Delay (s)		0.0			28.9			2.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.1			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		63.4%			ICU Level of Service			B				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	179	63	12	120	97	30	146	17	333	268	85
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	179	63	12	120	97	30	146	17	333	268	85
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	269	229	103	90	467	219						
Volume Left (vph)	27	12	30	0	333	0						
Volume Right (vph)	63	97	0	17	0	85						
Hadj (s)	-0.09	-0.21	0.18	-0.10	0.39	-0.24						
Departure Headway (s)	6.7	6.7	7.7	7.4	7.1	6.4						
Degree Utilization, x	0.50	0.43	0.22	0.19	0.91	0.39						
Capacity (veh/h)	513	507	442	456	505	551						
Control Delay (s)	16.3	14.7	11.7	10.9	46.8	12.2						
Approach Delay (s)	16.3	14.7	11.3	35.8								
Approach LOS	C	B	B	E								
Intersection Summary												
Delay			25.0									
Level of Service			D									
Intersection Capacity Utilization			58.1%	ICU Level of Service				B				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	20	10	13	20	49	59	632	161	135	591	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	20	10	13	20	49	59	632	161	135	591	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	0.95	0.95	0.95	0.95	0.95		0.95					
vC, conflicting volume	1396	1814	338	1416	1776	396	675			793		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1314	1753	201	1335	1713	396	555			793		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	60	68	99	81	70	92	94			84		
cM capacity (veh/h)	66	63	767	67	67	603	962			824		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	56	82	375	477	430	380						
Volume Left	26	13	59	0	135	0						
Volume Right	10	49	0	161	0	84						
cSH	77	143	962	1700	824	1700						
Volume to Capacity	0.73	0.58	0.06	0.28	0.16	0.22						
Queue Length 95th (ft)	86	73	5	0	15	0						
Control Delay (s)	128.2	59.9	2.0	0.0	4.6	0.0						
Lane LOS	F	F	A		A							
Approach Delay (s)	128.2	59.9	0.9		2.4							
Approach LOS	F	F										
Intersection Summary												
Average Delay			8.2									
Intersection Capacity Utilization			64.5%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	135	28	10	120	116	53	392	18	106	535	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.99			0.94			0.99			0.97	
Flt Protected		0.98			1.00			0.99			0.99	
Satd. Flow (prot)		1801			1741			3499			3410	
Flt Permitted		0.79			0.99			0.83			0.83	
Satd. Flow (perm)		1456			1719			2907			2848	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	135	28	10	120	116	53	392	18	106	535	162
RTOR Reduction (vph)	0	7	0	0	59	0	0	5	0	0	41	0
Lane Group Flow (vph)	0	262	0	0	187	0	0	458	0	0	762	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		476			562			1532			1501	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.11			0.16			c0.27	
v/c Ratio		0.55			0.33			0.30			0.51	
Uniform Delay, d1		15.2			14.0			7.3			8.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.5			1.6			0.5			1.2	
Delay (s)		19.7			15.6			7.8			9.6	
Level of Service		B			B			A			A	
Approach Delay (s)		19.7			15.6			7.8			9.6	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		78.0%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1162	340	84	0	0	0	0	457	534	879	458	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3287	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3287	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1162	340	84	0	0	0	0	457	534	879	458	0
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	86	0	0	0
Lane Group Flow (vph)	581	921	24	0	0	0	0	457	448	879	458	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	920	443					990	443	961	521	
v/s Ratio Prot	c0.36	0.28	0.01					0.13	c0.28	c0.26	0.25	
v/s Ratio Perm												
v/c Ratio	1.29	1.24dl	0.05					0.46	1.01	0.91	0.88	
Uniform Delay, d1	27.0	27.0	19.7					22.3	27.0	26.1	25.8	
Progression Factor	0.97	0.97	0.92					1.00	1.00	0.84	0.84	
Incremental Delay, d2	146.8	29.9	0.2					1.5	45.8	13.6	17.4	
Delay (s)	173.0	56.1	18.4					23.9	72.8	35.4	39.1	
Level of Service	F	E	B					C	E	D	D	
Approach Delay (s)		96.9			0.0			50.2			36.7	
Approach LOS		F			A			D			D	
Intersection Summary												
HCM 2000 Control Delay			64.5					HCM 2000 Level of Service		E		
HCM 2000 Volume to Capacity ratio			1.07									
Actuated Cycle Length (s)			75.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			115.4%					ICU Level of Service		H		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 			 			  	
Volume (vph)	0	0	0	306	175	791	103	389	0	0	904	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.90	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3038	1441	1770	3539			5052	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3038	1441	1770	3539			5052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	306	175	791	103	389	0	0	904	41
RTOR Reduction (vph)	0	0	0	0	269	269	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	306	302	126	103	389	0	0	938	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	972	461	212	2029			2020	
v/s Ratio Prot				c0.17	0.10	0.09	c0.06	0.11			c0.19	
v/s Ratio Perm												
v/c Ratio				0.54	0.31	0.27	0.49	0.19			0.46	
Uniform Delay, d1				21.0	19.3	19.0	30.8	7.7			16.6	
Progression Factor				1.00	1.00	1.00	0.94	0.10			1.00	
Incremental Delay, d2				3.7	0.8	1.5	2.5	0.1			0.8	
Delay (s)				24.6	20.1	20.5	31.6	0.9			17.4	
Level of Service				C	C	C	C	A			B	
Approach Delay (s)		0.0			21.3			7.3			17.4	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			17.4		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			115.4%		ICU Level of Service					H		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	813	314	0	0	0	0	482	77	127	924	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		5036	1583					3466		1770	3539	
Flt Permitted		0.99	1.00					1.00		0.30	1.00	
Satd. Flow (perm)		5036	1583					3466		556	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	813	314	0	0	0	0	482	77	127	924	0
RTOR Reduction (vph)	0	0	73	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	1012	241	0	0	0	0	538	0	127	924	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		20.0	20.0					20.0		32.0	32.0	
Effective Green, g (s)		20.0	20.0					20.0		32.0	32.0	
Actuated g/C Ratio		0.33	0.33					0.33		0.53	0.53	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)		1678	527					1155		458	1887	
v/s Ratio Prot		c0.20						0.16		0.04	c0.26	
v/s Ratio Perm			0.15							0.11		
v/c Ratio		0.60	0.46					0.47		0.28	0.49	
Uniform Delay, d1		16.7	15.7					15.8		7.6	8.8	
Progression Factor		1.00	1.00					1.00		0.85	0.54	
Incremental Delay, d2		1.6	2.8					1.3		1.2	0.7	
Delay (s)		18.3	18.6					17.1		7.7	5.5	
Level of Service		B	B					B		A	A	
Approach Delay (s)		18.4			0.0			17.1			5.7	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			13.6					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			64.7%					ICU Level of Service		C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	215	692	127	133	478	0	0	802	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3438		1770	3539			4994	
Flt Permitted					0.99		0.19	1.00			1.00	
Satd. Flow (perm)					3438		348	3539			4994	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	215	692	127	133	478	0	0	802	109
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	1016	0	133	478	0	0	882	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1146		375	1887			1664	
v/s Ratio Prot					c0.30		c0.05	0.14			c0.18	
v/s Ratio Perm							0.14					
v/c Ratio					0.89		0.35	0.25			0.53	
Uniform Delay, d1					18.9		8.0	7.6			16.2	
Progression Factor					1.00		1.70	0.75			1.88	
Incremental Delay, d2					10.2		2.3	0.3			0.8	
Delay (s)					29.2		15.9	6.0			31.2	
Level of Service					C		B	A			C	
Approach Delay (s)		0.0			29.2			8.1			31.2	
Approach LOS		A			C			A			C	
Intersection Summary												
HCM 2000 Control Delay			24.9				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			64.7%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	328	112	5	582	175	2	566	36	0	998	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3404			3416			3507			3479	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		3224			3256			3341			3479	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	328	112	5	582	175	2	566	36	0	998	127
RTOR Reduction (vph)	0	24	0	0	46	0	0	8	0	0	16	0
Lane Group Flow (vph)	0	422	0	0	716	0	0	596	0	0	1109	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1450			1465			1392			1449	
v/s Ratio Prot											c0.32	
v/s Ratio Perm		0.13			c0.22			0.18				
v/c Ratio		0.29			0.49			0.43			0.77	
Uniform Delay, d1		10.4			11.6			12.4			15.0	
Progression Factor		1.00			1.00			1.48			1.00	
Incremental Delay, d2		0.5			1.2			0.9			3.9	
Delay (s)		11.0			12.8			19.4			18.9	
Level of Service		B			B			B			B	
Approach Delay (s)		11.0			12.8			19.4			18.9	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		16.2			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.62										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		63.6%			ICU Level of Service			B				
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	9	29	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	9	29	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			258	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			258	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	96	98
cM capacity (veh/h)	1514			1460			653	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	24	32								
Volume Left	0	18	9	0								
Volume Right	39	0	0	18								
cSH	1700	1460	675	797								
Volume to Capacity	0.07	0.01	0.03	0.04								
Queue Length 95th (ft)	0	1	3	3								
Control Delay (s)	0.0	1.4	10.5	9.7								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.0									
Approach LOS			B									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	210	12	27	223	0	0	0	0	12	18	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	210	12	27	223	0	0	0	0	12	18	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	223			222			576	493	216	493	499	223
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	223			222			576	493	216	493	499	223
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	96	91
cM capacity (veh/h)	1346			1347			372	467	824	479	464	817
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	222	250	21	83								
Volume Left	0	27	12	0								
Volume Right	12	0	0	74								
cSH	1700	1347	472	754								
Volume to Capacity	0.13	0.02	0.04	0.11								
Queue Length 95th (ft)	0	2	3	9								
Control Delay (s)	0.0	1.0	13.0	10.4								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.0	10.9									
Approach LOS			B									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			38.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	103	210	217	125	112	63
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	103	210	217	125	112	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		325	206	416	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		325	206	416	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	94		53	81	77	94
cM capacity (veh/h)	1623		465	647	494	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	103	210	342	112	63	
Volume Left	103	0	217	0	0	
Volume Right	0	210	0	0	63	
cSH	1623	1700	519	494	1085	
Volume to Capacity	0.06	0.12	0.66	0.23	0.06	
Queue Length 95th (ft)	5	0	119	22	5	
Control Delay (s)	7.4	0.0	24.4	14.4	8.5	
Lane LOS	A		C	B	A	
Approach Delay (s)	2.4		24.4	12.3		
Approach LOS			C	B		
Intersection Summary						
Average Delay			13.6			
Intersection Capacity Utilization			37.6%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	334	1529	0	0	0	0	0	686	1212	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5040						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5040						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	1529	0	0	0	0	0	686	1212	0	0	0
RTOR Reduction (vph)	0	77	0	0	0	0	0	0	13	0	0	0
Lane Group Flow (vph)	0	1786	0	0	0	0	0	686	1199	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1792						2373	1300			
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.35							c0.43			
v/c Ratio		1.00						0.29	0.92			
Uniform Delay, d1		14.5						7.4	11.2			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		20.5						0.3	12.2			
Delay (s)		35.0						7.7	23.4			
Level of Service		C						A	C			
Approach Delay (s)		35.0			0.0			17.8			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		26.3						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.95										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		88.1%						ICU Level of Service	E			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	622	462	0	0	0	0	670	39	106	122	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Flt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4779						1849		1770	1863	
Flt Permitted		0.99						1.00		0.24	1.00	
Satd. Flow (perm)		4779						1849		441	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	622	462	0	0	0	0	670	39	106	122	0
RTOR Reduction (vph)	0	201	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	1181	0	0	0	0	0	704	0	106	122	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1380						986		235	993	
v/s Ratio Prot								c0.38			0.07	
v/s Ratio Perm		0.25								0.24		
v/c Ratio		0.86						0.71		0.45	0.12	
Uniform Delay, d1		15.1						7.9		6.5	5.2	
Progression Factor		1.00						1.00		0.53	0.46	
Incremental Delay, d2		7.0						4.4		6.1	0.3	
Delay (s)		22.1						12.3		9.4	2.7	
Level of Service		C						B		A	A	
Approach Delay (s)		22.1			0.0			12.3			5.8	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		17.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.76										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		102.7%						ICU Level of Service		G		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	11	389	53	453	434	0	0	253	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.60	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1122	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	11	389	53	453	434	0	0	253	514
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	11	389	13	453	434	0	0	253	514
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	648	1076			1076	1583
v/s Ratio Prot				0.01	c0.21			0.23			0.14	
v/s Ratio Perm						0.01	c0.40					0.32
v/c Ratio				0.03	0.85	0.03	0.70	0.40			0.24	0.32
Uniform Delay, d1				12.9	16.2	13.0	6.7	5.2			4.6	0.0
Progression Factor				0.67	0.67	0.62	0.62	0.67			1.09	1.00
Incremental Delay, d2				0.1	17.6	0.2	3.9	0.7			0.4	0.5
Delay (s)				8.8	28.5	8.2	8.1	4.2			5.5	0.5
Level of Service				A	C	A	A	A			A	A
Approach Delay (s)		0.0			25.7			6.2			2.1	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.9		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			102.7%		ICU Level of Service					G		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	1079	522	0	0	0	0	313	144	36	338	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4713	1362					1784			1854	
Flt Permitted		1.00	1.00					1.00			0.91	
Satd. Flow (perm)		4713	1362					1784			1698	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	41	1079	522	0	0	0	0	313	144	36	338	0
RTOR Reduction (vph)	0	35	170	0	0	0	0	32	0	0	0	0
Lane Group Flow (vph)	0	1236	201	0	0	0	0	425	0	0	374	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2199	635					634			603	
v/s Ratio Prot		c0.26						c0.24				
v/s Ratio Perm			0.15								0.22	
v/c Ratio		0.56	0.32					0.67			0.62	
Uniform Delay, d1		8.7	7.5					12.3			12.0	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		1.0	1.3					5.3			4.7	
Delay (s)		9.7	8.8					17.6			16.7	
Level of Service		A	A					B			B	
Approach Delay (s)		9.5			0.0			17.6			16.7	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			12.1					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			80.0%					ICU Level of Service			D	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	725	35	0	0	0	0	0	0	931	150	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3267	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3267	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	725	35	0	0	0	0	0	0	931	150	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	35	35	0
Lane Group Flow (vph)	0	749	0	0	0	0	0	0	0	430	581	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1562	
v/s Ratio Prot		c0.15										
v/s Ratio Perm										c0.27	0.18	
v/c Ratio		0.43								0.56	0.37	
Uniform Delay, d1		11.5								8.5	7.6	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.8								2.9	0.7	
Delay (s)		12.2								11.5	8.3	
Level of Service		B								B	A	
Approach Delay (s)		12.2			0.0			0.0			9.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		42.3%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	18	210	0	0	0	0	0	1108	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5065						4956	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5065						4956	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	18	210	0	0	0	0	0	1108	227
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	70	0
Lane Group Flow (vph)	0	0	0	0	212	0	0	0	0	0	1265	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1688						2422	
v/s Ratio Prot					c0.04						c0.26	
v/s Ratio Perm												
v/c Ratio					0.13						0.52	
Uniform Delay, d1					10.4						7.9	
Progression Factor					0.89						0.55	
Incremental Delay, d2					0.1						0.7	
Delay (s)					9.4						5.1	
Level of Service					A						A	
Approach Delay (s)		0.0			9.4			0.0			5.1	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			42.3%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Volume (vph)	0	1045	342	0	0	0	0	0	0	309	913	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.0									4.0			
Lane Util. Factor		0.86									0.91			
Frt		0.96									1.00			
Flt Protected		1.00									0.99			
Satd. Flow (prot)		6171									5022			
Flt Permitted		1.00									0.99			
Satd. Flow (perm)		6171									5022			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	0	1045	342	0	0	0	0	0	0	309	913	0		
RTOR Reduction (vph)	0	52	0	0	0	0	0	0	0	0	13	0		
Lane Group Flow (vph)	0	1335	0	0	0	0	0	0	0	0	1209	0		
Turn Type		NA									Perm	NA		
Protected Phases		4										6		
Permitted Phases												6		
Actuated Green, G (s)		16.0										21.0		
Effective Green, g (s)		16.0										21.0		
Actuated g/C Ratio		0.36										0.47		
Clearance Time (s)		4.0										4.0		
Lane Grp Cap (vph)		2194										2343		
v/s Ratio Prot		c0.22												
v/s Ratio Perm												0.24		
v/c Ratio		0.61										0.52		
Uniform Delay, d1		11.9										8.4		
Progression Factor		0.53										1.00		
Incremental Delay, d2		1.1										0.8		
Delay (s)		7.5										9.2		
Level of Service		A										A		
Approach Delay (s)		7.5				0.0				0.0				9.2
Approach LOS		A				A				A				A
Intersection Summary														
HCM 2000 Control Delay		8.3				HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio		0.56												
Actuated Cycle Length (s)		45.0				Sum of lost time (s)				8.0				
Intersection Capacity Utilization		51.5%				ICU Level of Service				A				
Analysis Period (min)		15												
c Critical Lane Group														

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	209	0	76	5	0	1	273	679	0	0	736	290
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	209	0	76	5	0	1	273	679	0	0	736	290
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												563
pX, platoon unblocked												
vC, conflicting volume	1768	2106	513	1669	2251	340	1026				679	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1768	2106	513	1669	2251	340	1026				679	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	0	100	85	86	100	100	59				100	
cM capacity (veh/h)	36	30	506	37	24	656	673				909	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	209	76	273	340	340	491	535					
Volume Left	209	0	273	0	0	0	0					
Volume Right	0	76	0	0	0	0	290					
cSH	36	506	673	1700	1700	1700	1700					
Volume to Capacity	5.78	0.15	0.41	0.20	0.20	0.29	0.31					
Queue Length 95th (ft)	Err	13	49	0	0	0	0					
Control Delay (s)	Err	13.4	14.0	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	7336.2			4.0	0.0							
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%	ICU Level of Service				H				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	141	77	136	935	986	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1718		1770	1863	1863	1583
Flt Permitted	0.97		0.22	1.00	1.00	1.00
Satd. Flow (perm)	1718		414	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	141	77	136	935	986	203
RTOR Reduction (vph)	23	0	0	0	0	122
Lane Group Flow (vph)	195	0	136	935	986	81
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	725		165	745	745	633
v/s Ratio Prot	c0.11			0.50	c0.53	
v/s Ratio Perm			0.33			0.05
v/c Ratio	0.27		0.82	1.26	1.32	0.13
Uniform Delay, d1	8.5		12.1	13.5	13.5	8.5
Progression Factor	1.00		1.00	1.00	0.96	1.44
Incremental Delay, d2	0.9		35.4	125.6	154.7	0.4
Delay (s)	9.4		47.4	139.1	167.7	12.7
Level of Service	A		D	F	F	B
Approach Delay (s)	9.4			127.5	141.2	
Approach LOS	A			F	F	

Intersection Summary

HCM 2000 Control Delay	123.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	1016	140	0	0	0	0	894	349	6	284	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.99						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4966						3390			1861	
Flt Permitted		0.99						1.00			0.69	
Satd. Flow (perm)		4966						3390			1292	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	246	1016	140	0	0	0	0	894	349	6	284	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	45	0	0	0	0
Lane Group Flow (vph)	0	1372	0	0	0	0	0	1198	0	0	290	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1130			430	
v/s Ratio Prot		c0.28						c0.35				
v/s Ratio Perm											0.22	
v/c Ratio		0.57						1.06			0.67	
Uniform Delay, d1		8.1						15.0			12.9	
Progression Factor		1.00						1.55			1.26	
Incremental Delay, d2		1.0						33.1			8.0	
Delay (s)		9.1						56.4			24.2	
Level of Service		A						E			C	
Approach Delay (s)		9.1			0.0			56.4			24.2	
Approach LOS		A			A			E			C	
Intersection Summary												
HCM 2000 Control Delay		30.6						HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio		0.77										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		70.3%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	221	85	506	163	655	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3101	1441		3504				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3101	1441		3504				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	221	85	506	163	655	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	41	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	513	217	0	818	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1516	704		1168				
v/s Ratio Prot					c0.17			c0.23				
v/s Ratio Perm						0.15						
v/c Ratio					0.34	0.31		0.70				
Uniform Delay, d1					7.0	6.9		13.0				
Progression Factor					1.00	1.00		0.91				
Incremental Delay, d2					0.6	1.1		1.1				
Delay (s)					7.6	8.1		13.0				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.8			13.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.4				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			50.4%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	1035	0	0	0	0	0	1049	198	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6365						4964				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6365						4964				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	1035	0	0	0	0	0	1049	198	0	0	0
RTOR Reduction (vph)	0	18	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1178	0	0	0	0	0	1223	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2687						1985				
v/s Ratio Prot								c0.25				
v/s Ratio Perm		0.19										
v/c Ratio		0.44						0.62				
Uniform Delay, d1		9.2						10.7				
Progression Factor		1.05						0.87				
Incremental Delay, d2		0.4						1.3				
Delay (s)		10.1						10.6				
Level of Service		B						B				
Approach Delay (s)		10.1			0.0			10.6			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		10.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		71.3%						ICU Level of Service		C		
Analysis Period (min)		15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	74	879	57	56	744	623	39	19	27	750	40	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	879	57	56	744	623	39	19	27	750	40	97
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	1010	800	623	85	887							
Volume Left (vph)	74	56	0	39	750							
Volume Right (vph)	57	0	623	27	97							
Hadj (s)	0.01	0.07	-0.67	-0.06	0.14							
Departure Headway (s)	7.7	8.1	7.4	9.5	7.7							
Degree Utilization, x	2.15	1.80	1.28	0.22	1.90							
Capacity (veh/h)	477	449	496	374	476							
Control Delay (s)	544.0	389.2	162.2	15.2	430.2							
Approach Delay (s)	544.0	289.8		15.2	430.2							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			394.9									
Level of Service			F									
Intersection Capacity Utilization			162.3%	ICU Level of Service		H						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	216	59	166	581	113	33	532	49	89	808	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	235	64	180	632	123	36	578	53	97	878	180
RTOR Reduction (vph)	0	0	48	0	15	0	0	6	0	0	0	155
Lane Group Flow (vph)	263	235	16	180	740	0	36	625	0	97	878	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Effective Green, g (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Actuated g/C Ratio	0.14	0.24	0.24	0.16	0.27		0.06	0.30		0.09	0.34	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	865	387	290	927		97	1064		167	1217	222
v/s Ratio Prot	0.08	0.07		c0.10	c0.21		0.02	0.18		c0.05	c0.25	0.02
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.27	0.04	0.62	0.80		0.37	0.59		0.58	0.72	0.11
Uniform Delay, d1	33.4	25.5	24.0	32.4	28.4		38.0	24.6		36.2	23.9	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.0	4.1	4.8		2.4	2.4		5.1	3.7	0.2
Delay (s)	34.7	25.7	24.1	36.5	33.2		40.4	26.9		41.2	27.6	31.5
Level of Service	C	C	C	D	C		D	C		D	C	C
Approach Delay (s)		29.7			33.9			27.7			29.3	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			65.6%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	321	448	315	89	240	170	87	572	39	130	1142	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	487	342	97	261	185	95	622	42	141	1241	129
RTOR Reduction (vph)	0	115	0	0	141	0	0	0	30	0	0	69
Lane Group Flow (vph)	349	714	0	97	305	0	95	622	12	141	1241	60
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Effective Green, g (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Actuated g/C Ratio	0.24	0.31		0.10	0.17		0.07	0.30	0.30	0.10	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	1028		177	559		254	1050	469	359	1158	518
v/s Ratio Prot	c0.20	c0.21		0.05	0.09		0.03	0.18		c0.04	c0.35	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.82	0.69		0.55	0.55		0.37	0.59	0.03	0.39	1.07	0.12
Uniform Delay, d1	30.4	25.8		36.4	32.3		37.4	25.5	21.2	35.5	28.6	20.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	2.1		3.4	1.1		0.9	2.5	0.1	0.7	47.9	0.5
Delay (s)	41.9	27.8		39.8	33.4		38.4	27.9	21.3	36.2	76.5	20.4
Level of Service	D	C		D	C		D	C	C	D	E	C
Approach Delay (s)		32.0			34.6			28.9			67.9	
Approach LOS		C			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			45.3				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			84.9				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			78.1%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Commercial Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	27	20	268	49	49	22	5	32	92	96
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	27	20	268	49	49	22	5	32	92	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	317			101			452	492	50	434	482	158
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	317			101			452	492	50	434	482	158
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			86	95	100	93	80	89
cM capacity (veh/h)	1240			1489			361	460	1007	473	467	859
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	64	154	183	76	32	61	127				
Volume Left	24	0	20	0	49	32	0	0				
Volume Right	0	27	0	49	5	0	0	96				
cSH	1240	1700	1489	1700	404	473	467	714				
Volume to Capacity	0.02	0.04	0.01	0.11	0.19	0.07	0.13	0.18				
Queue Length 95th (ft)	1	0	1	0	17	5	11	16				
Control Delay (s)	3.2	0.0	1.1	0.0	16.0	13.2	13.9	11.1				
Lane LOS	A		A		C	B	B	B				
Approach Delay (s)	1.6		0.5		16.0	12.2						
Approach LOS					C	B						
Intersection Summary												
Average Delay			5.6									
Intersection Capacity Utilization			36.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	213	17	0	0	0	0	86	22	63	231	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5026						3431		1770	5085	
Flt Permitted		1.00						1.00		0.68	1.00	
Satd. Flow (perm)		5026						3431		1274	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	213	17	0	0	0	0	86	22	63	231	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	227	0	0	0	0	0	93	0	63	231	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2881						1097		407	1627	
v/s Ratio Prot								0.03			0.05	
v/s Ratio Perm		0.05								c0.05		
v/c Ratio		0.08						0.08		0.15	0.14	
Uniform Delay, d1		7.1						17.8		18.2	18.2	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.1						0.2		0.8	0.2	
Delay (s)		7.2						18.0		19.1	18.3	
Level of Service		A						B		B	B	
Approach Delay (s)		7.2			0.0			18.0			18.5	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.11										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		28.4%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	99	259	248	11	26	78	0	0	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.96
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3491	1583		1770	3539			4896
Flt Permitted					0.99	1.00		0.59	1.00			1.00
Satd. Flow (perm)					3491	1583		1100	3539			4896
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	99	259	248	11	26	78	0	0	188
RTOR Reduction (vph)	0	0	0	0	0	94	0	0	0	0	0	43
Lane Group Flow (vph)	0	0	0	0	358	154	0	37	78	0	0	207
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2164	981		330	1061			1468
v/s Ratio Prot									0.02			c0.04
v/s Ratio Perm					0.10	0.10		0.03				
v/c Ratio					0.17	0.16		0.11	0.07			0.14
Uniform Delay, d1					8.0	8.0		25.4	25.1			25.6
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.2	0.3		0.7	0.1			0.2
Delay (s)					8.2	8.3		26.0	25.2			25.8
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.3				25.5			25.8
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			14.8		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			28.4%		ICU Level of Service				A			
Analysis Period (min)			15									

c Critical Lane Group

3: Market Street & 6th Street

Lane C

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	339	44	55	749	46	158	172	16	50	102	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4998		1770	5041		1770	3494		1770	4719	
Flt Permitted	0.23	1.00		0.50	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	425	4998		923	5041		1770	3494		1770	4719	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	53	339	44	55	749	46	158	172	16	50	102	94
RTOR Reduction (vph)	0	20	0	0	9	0	0	9	0	0	82	0
Lane Group Flow (vph)	53	363	0	55	786	0	158	179	0	50	114	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	116	1374		253	1386		796	1572		221	589	
v/s Ratio Prot		0.07			c0.16		c0.09	0.05		c0.03	0.02	
v/s Ratio Perm	0.12			0.06								
v/c Ratio	0.46	0.26		0.22	0.57		0.20	0.11		0.23	0.19	
Uniform Delay, d1	24.0	22.7		22.4	24.9		13.3	12.8		31.5	31.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.4	0.5		2.0	1.7		0.6	0.1		2.4	0.7	
Delay (s)	36.5	23.1		24.3	26.6		13.8	12.9		33.9	32.1	
Level of Service	D	C		C	C		B	B		C	C	
Approach Delay (s)		24.8			26.5			13.3			32.5	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			24.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			45.0%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013



Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	159	883	477	31	92	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6030	5039		3287	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6030	5039		3287	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	159	883	477	31	92	69
RTOR Reduction (vph)	103	53	9	0	0	0
Lane Group Flow (vph)	40	846	499	0	161	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1688	1410		920	
v/s Ratio Prot	0.03	c0.14	c0.10		c0.05	
v/s Ratio Perm						
v/c Ratio	0.10	0.50	0.35		0.17	
Uniform Delay, d1	20.0	22.6	21.6		20.4	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	1.1	0.7		0.4	
Delay (s)	20.5	23.7	22.3		20.9	
Level of Service	C	C	C		C	
Approach Delay (s)		23.2	22.3		20.9	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			22.7		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.34			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			37.5%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	239	289	43	565	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3216	1441	1433	6033				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3216	1441	1433	6033				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	239	289	43	565	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	79	110	17	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	284	55	22	562	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1072	480	802	3378				
v/s Ratio Prot					c0.09							
v/s Ratio Perm						0.04	0.02	0.09				
v/c Ratio					0.26	0.11	0.03	0.17				
Uniform Delay, d1					18.3	17.3	7.4	8.0				
Progression Factor					1.00	1.00	0.29	0.44				
Incremental Delay, d2					0.6	0.5	0.1	0.1				
Delay (s)					18.9	17.8	2.2	3.6				
Level of Service					B	B	A	A				
Approach Delay (s)		0.0			18.5			3.5			0.0	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.5		HCM 2000 Level of Service						B	
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			26.8%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	94	79	8	109	101	10	39	0	335	180	66
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	94	79	8	109	101	10	39	0	335	180	66
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	180	218	30	20	425	156						
Volume Left (vph)	7	8	10	0	335	0						
Volume Right (vph)	79	101	0	0	0	66						
Hadj (s)	-0.22	-0.24	0.20	0.03	0.43	-0.26						
Departure Headway (s)	5.7	5.6	6.8	6.6	6.2	5.5						
Degree Utilization, x	0.28	0.34	0.06	0.04	0.73	0.24						
Capacity (veh/h)	589	601	470	489	570	639						
Control Delay (s)	10.9	11.4	8.9	8.6	22.8	9.0						
Approach Delay (s)	10.9	11.4	8.8		19.1							
Approach LOS	B	B	A		C							
Intersection Summary												
Delay			15.5									
Level of Service			C									
Intersection Capacity Utilization			47.1%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	2	7	22	26	16	378	33	103	463	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	2	2	7	22	26	16	378	33	103	463	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	951	1136	256	867	1144	206	511			411		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	951	1136	256	867	1144	206	511			411		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	100	97	88	97	98			91		
cM capacity (veh/h)	173	180	744	225	178	801	1050			1144		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	10	55	205	222	334	280						
Volume Left	6	7	16	0	103	0						
Volume Right	2	26	0	33	0	48						
cSH	206	294	1050	1700	1144	1700						
Volume to Capacity	0.05	0.19	0.02	0.13	0.09	0.16						
Queue Length 95th (ft)	4	17	1	0	7	0						
Control Delay (s)	23.3	20.1	0.8	0.0	3.2	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	23.3	20.1	0.4		1.8							
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			42.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	5	54	49	42	359	30	102	427	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.97			0.94			0.99			0.96	
Flt Protected		0.98			1.00			1.00			0.99	
Satd. Flow (prot)		1774			1745			3485			3386	
Flt Permitted		0.89			0.99			0.86			0.83	
Satd. Flow (perm)		1610			1733			3022			2827	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	5	54	49	42	359	30	102	427	168
RTOR Reduction (vph)	0	14	0	0	33	0	0	10	0	0	55	0
Lane Group Flow (vph)	0	79	0	0	75	0	0	421	0	0	642	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		526			567			1593			1490	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.04			0.14			c0.23	
v/c Ratio		0.15			0.13			0.26			0.43	
Uniform Delay, d1		13.1			13.0			7.1			8.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.5			0.4			0.9	
Delay (s)		13.7			13.5			7.5			8.9	
Level of Service		B			B			A			A	
Approach Delay (s)		13.7			13.5			7.5			8.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.1			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.32										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		54.1%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	931	179	99	0	0	0	0	318	537	548	415	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	931	179	99	0	0	0	0	318	537	548	415	0
RTOR Reduction (vph)	0	0	71	0	0	0	0	0	202	0	0	0
Lane Group Flow (vph)	465	645	28	0	0	0	0	318	335	548	415	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	916	443					990	443	961	521	
v/s Ratio Prot	c0.29	0.20	0.02					0.09	c0.21	0.16	c0.22	
v/s Ratio Perm												
v/c Ratio	1.03	0.99dl	0.06					0.32	0.76	0.57	0.80	
Uniform Delay, d1	27.0	24.2	19.8					21.4	24.7	23.1	25.0	
Progression Factor	1.00	1.00	1.04					1.00	1.00	1.04	1.04	
Incremental Delay, d2	51.3	4.5	0.3					0.9	11.5	2.4	11.6	
Delay (s)	78.2	28.6	20.8					22.2	36.1	26.5	37.5	
Level of Service	E	C	C					C	D	C	D	
Approach Delay (s)		47.0			0.0			31.0			31.2	
Approach LOS		D			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			37.5					HCM 2000 Level of Service			D	
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			75.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			87.5%					ICU Level of Service		E		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	359	160	533	67	473	0	0	384	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.91	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3072	1441	1770	3539			5004	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3072	1441	1770	3539			5004	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	359	160	533	67	473	0	0	384	46
RTOR Reduction (vph)	0	0	0	0	182	181	0	0	0	0	20	0
Lane Group Flow (vph)	0	0	0	359	245	85	67	473	0	0	410	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	983	461	212	2029			2001	
v/s Ratio Prot				c0.20	0.08	0.06	c0.04	c0.13			0.08	
v/s Ratio Perm												
v/c Ratio				0.63	0.25	0.18	0.32	0.23			0.20	
Uniform Delay, d1				21.8	18.8	18.4	30.2	7.9			14.7	
Progression Factor				1.00	1.00	1.00	0.84	0.15			1.00	
Incremental Delay, d2				5.3	0.6	0.9	2.6	0.2			0.2	
Delay (s)				27.1	19.5	19.3	27.9	1.4			14.9	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			22.0			4.7			14.9	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			15.9		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			87.5%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	632	133	0	0	0	0	418	80	105	552	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		5056	1583					3454		1770	3539	
Flt Permitted		0.99	1.00					1.00		0.34	1.00	
Satd. Flow (perm)		5056	1583					3454		626	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	632	133	0	0	0	0	418	80	105	552	0
RTOR Reduction (vph)	0	0	89	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	716	44	0	0	0	0	471	0	105	552	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		20.0	20.0					20.0		32.0	32.0	
Effective Green, g (s)		20.0	20.0					20.0		32.0	32.0	
Actuated g/C Ratio		0.33	0.33					0.33		0.53	0.53	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)		1685	527					1151		486	1887	
v/s Ratio Prot		c0.14						c0.14		0.03	c0.16	
v/s Ratio Perm			0.03							0.09		
v/c Ratio		0.42	0.08					0.41		0.22	0.29	
Uniform Delay, d1		15.5	13.7					15.4		7.4	7.7	
Progression Factor		1.00	1.00					1.00		0.78	0.68	
Incremental Delay, d2		0.8	0.3					1.1		1.0	0.4	
Delay (s)		16.3	14.0					16.5		6.7	5.7	
Level of Service		B	B					B		A	A	
Approach Delay (s)		16.0			0.0			16.5			5.8	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		47.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	153	500	106	95	372	0	0	486	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3430		1770	3539			5025	
Flt Permitted					0.99		0.36	1.00			1.00	
Satd. Flow (perm)					3430		664	3539			5025	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	153	500	106	95	372	0	0	486	42
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	737	0	95	372	0	0	511	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1143		501	1887			1675	
v/s Ratio Prot					c0.21		0.03	c0.11			c0.10	
v/s Ratio Perm							0.08					
v/c Ratio					0.64		0.19	0.20			0.31	
Uniform Delay, d1					17.0		7.1	7.3			14.8	
Progression Factor					1.00		0.67	0.63			1.91	
Incremental Delay, d2					2.8		0.8	0.2			0.4	
Delay (s)					19.8		5.5	4.8			28.8	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			19.8			5.0			28.8	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			18.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			47.2%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	278	87	1	327	111	0	365	26	0	650	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3412			3405			3504			3472	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		3252			3250			3504			3472	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	278	87	1	327	111	0	365	26	0	650	95
RTOR Reduction (vph)	0	48	0	0	56	0	0	9	0	0	19	0
Lane Group Flow (vph)	0	320	0	0	383	0	0	382	0	0	726	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1463			1462			1460			1446	
v/s Ratio Prot								0.11			c0.21	
v/s Ratio Perm		0.10			c0.12							
v/c Ratio		0.22			0.26			0.26			0.50	
Uniform Delay, d1		10.1			10.3			11.5			12.9	
Progression Factor		1.00			1.00			1.76			1.00	
Incremental Delay, d2		0.3			0.4			0.4			1.2	
Delay (s)		10.4			10.7			20.5			14.2	
Level of Service		B			B			C			B	
Approach Delay (s)		10.4			10.7			20.5			14.2	
Approach LOS		B			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		41.0%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	5	21	0	0	0	0	14	19	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	5	21	0	0	0	0	14	19	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	21			41			86	64	34	64	72	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			41			86	64	34	64	72	21
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	98	98	99
cM capacity (veh/h)	1595			1568			872	824	1040	927	816	1056
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	26	24	22								
Volume Left	0	5	14	0								
Volume Right	15	0	0	12								
cSH	1700	1568	879	935								
Volume to Capacity	0.02	0.00	0.03	0.02								
Queue Length 95th (ft)	0	0	2	2								
Control Delay (s)	0.0	1.4	9.2	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.1									
Approach LOS			A									
Intersection Summary												
Average Delay			4.0									
Intersection Capacity Utilization			15.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	27	13	20	30	0	0	0	0	7	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	27	13	20	30	0	0	0	0	7	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	30			40			107	104	34	104	110	30
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	30			40			107	104	34	104	110	30
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1583			1570			859	777	1040	868	770	1044
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	40	50	8	4								
Volume Left	0	20	7	0								
Volume Right	13	0	0	2								
cSH	1700	1570	849	906								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	3.0	9.3	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	3.0	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			19.4%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	64	184	157	52	77	101
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	64	184	157	52	77	101
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		268	128	312	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		268	128	312	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	96		71	93	87	91
cM capacity (veh/h)	1623		542	732	579	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	64	184	209	77	101	
Volume Left	64	0	157	0	0	
Volume Right	0	184	0	0	101	
cSH	1623	1700	579	579	1085	
Volume to Capacity	0.04	0.11	0.36	0.13	0.09	
Queue Length 95th (ft)	3	0	41	11	8	
Control Delay (s)	7.3	0.0	14.7	12.2	8.7	
Lane LOS	A		B	B	A	
Approach Delay (s)	1.9		14.7	10.2		
Approach LOS			B	B		
Intersection Summary						
Average Delay			8.4			
Intersection Capacity Utilization			28.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑	↑↑			
Volume (vph)	165	691	0	0	0	0	0	616	1386	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5037						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5037						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	691	0	0	0	0	0	616	1386	0	0	0
RTOR Reduction (vph)	0	88	0	0	0	0	0	0	77	0	0	0
Lane Group Flow (vph)	0	768	0	0	0	0	0	616	1309	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1790						2373	1300			
v/s Ratio Prot								0.12				
v/s Ratio Perm		0.15							c0.47			
v/c Ratio		0.43						0.26	1.01			
Uniform Delay, d1		11.0						7.3	12.0			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.8						0.3	26.6			
Delay (s)		11.8						7.5	38.6			
Level of Service		B						A	D			
Approach Delay (s)		11.8			0.0			29.0			0.0	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay		23.9						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.76										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		94.2%						ICU Level of Service	F			
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	438	514	0	0	0	0	236	41	66	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4717						1826		1770	1863	
Flt Permitted		0.99						1.00		0.59	1.00	
Satd. Flow (perm)		4717						1826		1098	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	311	438	514	0	0	0	0	236	41	66	99	0
RTOR Reduction (vph)	0	276	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	987	0	0	0	0	0	263	0	66	99	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1362						973		585	993	
v/s Ratio Prot								c0.14			0.05	
v/s Ratio Perm		0.21								0.06		
v/c Ratio		0.72						0.27		0.11	0.10	
Uniform Delay, d1		14.4						5.7		5.2	5.2	
Progression Factor		1.00						1.00		0.28	0.28	
Incremental Delay, d2		3.4						0.7		0.4	0.2	
Delay (s)		17.8						6.4		1.9	1.7	
Level of Service		B						A		A	A	
Approach Delay (s)		17.8			0.0			6.4			1.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		14.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		71.3%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	311	56	298	281	0	0	206	1408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.63	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1171	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	311	56	298	281	0	0	206	1408
RTOR Reduction (vph)	0	0	0	0	0	42	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	311	14	298	281	0	0	206	1408
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	676	1076			1076	1583
v/s Ratio Prot				0.00	0.17			0.15			0.11	
v/s Ratio Perm						0.01	0.25					c0.89
v/c Ratio				0.00	0.68	0.04	0.44	0.26			0.19	0.89
Uniform Delay, d1				12.9	15.4	13.0	5.4	4.7			4.5	0.0
Progression Factor				0.71	0.70	0.74	1.04	0.98			1.69	1.00
Incremental Delay, d2				0.0	7.9	0.2	1.8	0.5			0.3	5.9
Delay (s)				9.2	18.7	9.7	7.4	5.1			7.9	5.9
Level of Service				A	B	A	A	A			A	A
Approach Delay (s)		0.0			17.3			6.3			6.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			7.8									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			45.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			71.3%									ICU Level of Service C
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	529	1338	0	0	0	0	354	90	28	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4409	1362					1812			1856	
Flt Permitted		1.00	1.00					1.00			0.95	
Satd. Flow (perm)		4409	1362					1812			1773	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	529	1338	0	0	0	0	354	90	28	356	0
RTOR Reduction (vph)	0	158	158	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	1078	511	0	0	0	0	423	0	0	384	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2057	635					644			630	
v/s Ratio Prot		0.24						c0.23				
v/s Ratio Perm			c0.37								0.22	
v/c Ratio		0.52	0.80					0.66			0.61	
Uniform Delay, d1		8.5	10.2					12.2			11.9	
Progression Factor		1.00	1.00					0.66			1.00	
Incremental Delay, d2		1.0	10.4					5.1			4.4	
Delay (s)		9.4	20.7					13.2			16.3	
Level of Service		A	C					B			B	
Approach Delay (s)		13.4			0.0			13.2			16.3	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.7					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			82.2%					ICU Level of Service			E	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↱	↱↑	
Volume (vph)	0	547	22	0	0	0	0	0	0	589	149	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5056								1610	3281	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5056								1610	3281	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	547	22	0	0	0	0	0	0	589	149	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	71	71	0
Lane Group Flow (vph)	0	560	0	0	0	0	0	0	0	223	373	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1569	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.14	0.11	
v/c Ratio		0.32								0.29	0.24	
Uniform Delay, d1		11.0								7.3	7.1	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								0.9	0.4	
Delay (s)		11.5								8.2	7.4	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			7.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.4			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.30										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		31.9%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	34	180	0	0	0	0	0	753	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					5045						4899	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					5045						4899	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	34	180	0	0	0	0	0	753	244
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	0	0	0	191	0	0	0	0	0	872	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1681						2395	
v/s Ratio Prot					c0.04						c0.18	
v/s Ratio Perm												
v/c Ratio					0.11						0.36	
Uniform Delay, d1					10.4						7.2	
Progression Factor					1.00						0.57	
Incremental Delay, d2					0.1						0.4	
Delay (s)					10.5						4.5	
Level of Service					B						A	
Approach Delay (s)		0.0			10.5			0.0			4.5	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			31.9%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	435	254	0	0	0	0	0	0	142	722	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.94									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6054									5044	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6054									5044	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	435	254	0	0	0	0	0	0	142	722	0
RTOR Reduction (vph)	0	92	0	0	0	0	0	0	0	0	65	0
Lane Group Flow (vph)	0	597	0	0	0	0	0	0	0	0	799	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2152									2353	
v/s Ratio Prot		c0.10										
v/s Ratio Perm											0.16	
v/c Ratio		0.28									0.34	
Uniform Delay, d1		10.4									7.6	
Progression Factor		0.61									1.00	
Incremental Delay, d2		0.3									0.4	
Delay (s)		6.6									8.0	
Level of Service		A									A	
Approach Delay (s)		6.6			0.0			0.0			8.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		7.4										
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		45.0									8.0	
Intersection Capacity Utilization		34.1%									A	
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	139	0	75	2	0	0	396	579	0	0	325	201
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	139	0	75	2	0	0	396	579	0	0	325	201
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1507	1796	263	1608	1897	290	526			579		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1507	1796	263	1608	1897	290	526			579		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	90	95	100	100	62			100		
cM capacity (veh/h)	58	49	735	44	42	707	1037			991		
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	139	75	396	290	290	217	309					
Volume Left	139	0	396	0	0	0	0					
Volume Right	0	75	0	0	0	0	201					
cSH	58	735	1037	1700	1700	1700	1700					
Volume to Capacity	2.38	0.10	0.38	0.17	0.17	0.13	0.18					
Queue Length 95th (ft)	346	8	45	0	0	0	0					
Control Delay (s)	778.4	10.4	10.6	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	509.2		4.3			0.0						
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%	ICU Level of Service				H				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	63	94	153	762	596	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1679		1770	1863	1863	1583
Flt Permitted	0.98		0.22	1.00	1.00	1.00
Satd. Flow (perm)	1679		414	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	94	153	762	596	106
RTOR Reduction (vph)	54	0	0	0	0	64
Lane Group Flow (vph)	103	0	153	762	596	42
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	708		165	745	745	633
v/s Ratio Prot	c0.06			c0.41	0.32	
v/s Ratio Perm			0.37			0.03
v/c Ratio	0.15		0.93	1.02	0.80	0.07
Uniform Delay, d1	8.0		12.9	13.5	11.9	8.3
Progression Factor	1.00		1.00	1.00	0.85	1.21
Incremental Delay, d2	0.4		53.1	38.9	8.6	0.2
Delay (s)	8.4		65.9	52.4	18.8	10.3
Level of Service	A		E	D	B	B
Approach Delay (s)	8.4			54.6	17.5	
Approach LOS	A			D	B	

Intersection Summary

HCM 2000 Control Delay	35.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	682	155	0	0	0	0	608	233	3	259	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3392			1862	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3392			1845	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	269	682	155	0	0	0	0	608	233	3	259	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	89	0	0	0	0
Lane Group Flow (vph)	0	1056	0	0	0	0	0	752	0	0	262	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1130			615	
v/s Ratio Prot		c0.21						c0.22				
v/s Ratio Perm											0.14	
v/c Ratio		0.44						0.67			0.43	
Uniform Delay, d1		7.5						12.9			11.7	
Progression Factor		1.00						1.83			1.20	
Incremental Delay, d2		0.6						1.1			2.1	
Delay (s)		8.1						24.5			16.1	
Level of Service		A						C			B	
Approach Delay (s)		8.1			0.0			24.5			16.1	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		15.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.53										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		53.0%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	179	61	527	150	482	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.92	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3069	1441		3498				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3069	1441		3498				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	179	61	527	150	482	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	83	83	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	421	180	0	632	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1500	704		1166				
v/s Ratio Prot					c0.14			c0.18				
v/s Ratio Perm						0.12						
v/c Ratio					0.28	0.26		0.54				
Uniform Delay, d1					6.8	6.7		12.2				
Progression Factor					1.00	1.00		0.80				
Incremental Delay, d2					0.5	0.9		1.4				
Delay (s)					7.3	7.6		11.2				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.4			11.2			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.1		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			46.1%		ICU Level of Service						A	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	416	0	0	0	0	0	941	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6342						5017				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6342						5017				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	416	0	0	0	0	0	941	93	0	0	0
RTOR Reduction (vph)	0	27	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	497	0	0	0	0	0	1008	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2677						2006				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.08										
v/c Ratio		0.19						0.50				
Uniform Delay, d1		8.2						10.1				
Progression Factor		1.03						0.84				
Incremental Delay, d2		0.1						0.8				
Delay (s)		8.6						9.3				
Level of Service		A						A				
Approach Delay (s)		8.6			0.0			9.3			0.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.1						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		66.9%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	426	19	20	664	436	75	45	56	390	16	137
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	426	19	20	664	436	75	45	56	390	16	137
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	515	684	436	176	543							
Volume Left (vph)	70	20	0	75	390							
Volume Right (vph)	19	0	436	56	137							
Hadj (s)	0.04	0.05	-0.67	-0.07	0.03							
Departure Headway (s)	8.3	8.6	7.9	9.5	8.2							
Degree Utilization, x	1.19	1.63	0.95	0.46	1.23							
Capacity (veh/h)	439	423	452	367	436							
Control Delay (s)	131.9	315.9	58.6	20.3	149.4							
Approach Delay (s)	131.9	215.7		20.3	149.4							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			167.5									
Level of Service			F									
Intersection Capacity Utilization			111.0%	ICU Level of Service		H						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	193	68	38	334	106	77	866	37	58	627	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3518		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3518		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	292	210	74	41	363	115	84	941	40	63	682	374
RTOR Reduction (vph)	0	0	50	0	31	0	0	3	0	0	0	315
Lane Group Flow (vph)	292	210	24	41	447	0	84	978	0	63	682	59
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Effective Green, g (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Actuated g/C Ratio	0.16	0.33	0.33	0.06	0.23		0.09	0.32		0.09	0.32	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	538	1155	516	103	778		164	1139		153	1123	248
v/s Ratio Prot	c0.09	0.06		0.02	c0.13		c0.05	c0.28		0.04	0.19	0.04
v/s Ratio Perm			0.02									
v/c Ratio	0.54	0.18	0.05	0.40	0.57		0.51	0.86		0.41	0.61	0.24
Uniform Delay, d1	30.5	18.9	18.1	35.6	26.9		33.9	24.8		33.9	22.6	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	2.5	1.0		2.7	8.5		1.8	2.4	0.5
Delay (s)	31.6	19.0	18.1	38.1	27.9		36.5	33.3		35.7	25.1	29.4
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		25.3			28.7			33.6			27.1	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			29.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			78.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			62.1%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	283	124	65	338	162	119	906	47	125	510	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	308	135	71	367	176	129	985	51	136	554	62
RTOR Reduction (vph)	0	46	0	0	59	0	0	0	35	0	0	43
Lane Group Flow (vph)	165	397	0	71	484	0	129	985	16	136	554	19
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Effective Green, g (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Actuated g/C Ratio	0.16	0.30		0.09	0.22		0.11	0.30	0.30	0.11	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	996		161	757		364	1079	482	373	1088	486
v/s Ratio Prot	c0.09	0.12		0.04	c0.14		0.04	c0.28		c0.04	0.16	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.58	0.40		0.44	0.64		0.35	0.91	0.03	0.36	0.51	0.04
Uniform Delay, d1	31.0	22.5		34.4	28.1		33.2	26.8	19.5	33.1	22.7	19.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.3		1.9	1.8		0.6	13.1	0.1	0.6	1.7	0.2
Delay (s)	33.9	22.8		36.3	29.8		33.8	39.9	19.6	33.7	24.4	19.6
Level of Service	C	C		D	C		C	D	B	C	C	B
Approach Delay (s)		25.8			30.6			38.3			25.7	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			31.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			64.9%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Commercial Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	277	22	16	165	115	53	154	33	49	59	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	53	277	22	16	165	115	53	154	33	49	59	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	280			299			578	706	150	609	660	140
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	280			299			578	706	150	609	660	140
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			83	55	96	78	84	95
cM capacity (veh/h)	1280			1259			320	340	870	226	361	882
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	192	160	98	198	240	49	39	60				
Volume Left	53	0	16	0	53	49	0	0				
Volume Right	0	22	0	115	33	0	0	40				
cSH	1280	1700	1259	1700	365	226	361	598				
Volume to Capacity	0.04	0.09	0.01	0.12	0.66	0.22	0.11	0.10				
Queue Length 95th (ft)	3	0	1	0	112	20	9	8				
Control Delay (s)	2.5	0.0	1.4	0.0	31.8	25.2	16.2	11.7				
Lane LOS	A		A		D	D	C	B				
Approach Delay (s)	1.3		0.5		31.8	17.4						
Approach LOS					D	C						
Intersection Summary												
Average Delay			10.4									
Intersection Capacity Utilization			48.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	496	22	0	0	0	0	297	35	105	108	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5050						3483		1770	5085	
Flt Permitted		1.00						1.00		0.52	1.00	
Satd. Flow (perm)		5050						3483		964	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	496	22	0	0	0	0	297	35	105	108	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	518	0	0	0	0	0	320	0	105	108	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		43.0						24.0		24.0	24.0	
Effective Green, g (s)		43.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.57						0.32		0.32	0.32	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		2895						1114		308	1627	
v/s Ratio Prot								0.09			0.02	
v/s Ratio Perm		0.10								c0.11		
v/c Ratio		0.18						0.29		0.34	0.07	
Uniform Delay, d1		7.6						19.1		19.5	17.7	
Progression Factor		1.00						1.00		1.00	1.00	
Incremental Delay, d2		0.1						0.6		3.0	0.1	
Delay (s)		7.7						19.7		22.5	17.8	
Level of Service		A						B		C	B	
Approach Delay (s)		7.7			0.0			19.7			20.1	
Approach LOS		A			A			B			C	
Intersection Summary												
HCM 2000 Control Delay		13.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.24										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		35.3%						ICU Level of Service		A		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	32	156	293	17	45	265	0	0	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0			4.0
Lane Util. Factor					0.95	1.00		1.00	0.95			0.91
Frt					1.00	0.85		1.00	1.00			0.97
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	3539			4956
Flt Permitted					0.99	1.00		0.62	1.00			1.00
Satd. Flow (perm)					3509	1583		1148	3539			4956
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	32	156	293	17	45	265	0	0	172
RTOR Reduction (vph)	0	0	0	0	0	111	0	0	0	0	0	25
Lane Group Flow (vph)	0	0	0	0	188	182	0	62	265	0	0	183
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					62.0	62.0		30.0	30.0			30.0
Effective Green, g (s)					62.0	62.0		30.0	30.0			30.0
Actuated g/C Ratio					0.62	0.62		0.30	0.30			0.30
Clearance Time (s)					4.0	4.0		4.0	4.0			4.0
Lane Grp Cap (vph)					2175	981		344	1061			1486
v/s Ratio Prot									c0.07			0.04
v/s Ratio Perm					0.05	c0.11		0.05				
v/c Ratio					0.09	0.19		0.18	0.25			0.12
Uniform Delay, d1					7.6	8.2		25.9	26.5			25.4
Progression Factor					1.00	1.00		1.00	1.00			1.00
Incremental Delay, d2					0.1	0.4		1.1	0.6			0.2
Delay (s)					7.7	8.6		27.0	27.0			25.6
Level of Service					A	A		C	C			C
Approach Delay (s)		0.0			8.2				27.0			25.6
Approach LOS		A			A				C			C
Intersection Summary												
HCM 2000 Control Delay			17.8				HCM 2000 Level of Service		B			
HCM 2000 Volume to Capacity ratio			0.21									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)		8.0			
Intersection Capacity Utilization			35.3%				ICU Level of Service		A			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

7/24/2013



Movement	SBR
Left Lane Configurations	
Volume (vph)	35
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	35
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	991	89	44	424	46	242	266	57	66	116	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.99		1.00	0.99		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5022		1770	5011		1770	3446		1770	4788	
Flt Permitted	0.43	1.00		0.18	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	795	5022		339	5011		1770	3446		1770	4788	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	991	89	44	424	46	242	266	57	66	116	74
RTOR Reduction (vph)	0	13	0	0	17	0	0	23	0	0	65	0
Lane Group Flow (vph)	132	1067	0	44	453	0	242	300	0	66	125	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		36.0	36.0		10.0	10.0	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.45	0.45		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	218	1381		93	1378		796	1550		221	598	
v/s Ratio Prot		c0.21			0.09		c0.14	0.09		c0.04	0.03	
v/s Ratio Perm	0.17			0.13								
v/c Ratio	0.61	0.77		0.47	0.33		0.30	0.19		0.30	0.21	
Uniform Delay, d1	25.2	26.7		24.2	23.1		14.0	13.3		31.8	31.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.9	4.3		16.3	0.6		1.0	0.3		3.4	0.8	
Delay (s)	37.1	30.9		40.4	23.8		15.0	13.5		35.2	32.2	
Level of Service	D	C		D	C		B	B		D	C	
Approach Delay (s)		31.6			25.2			14.2			33.0	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			26.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			55.1%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

7/24/2013

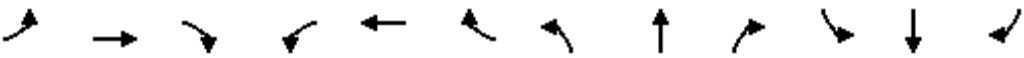


Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	194	613	1398	44	76	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1433	6017	5062		3316	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1433	6017	5062		3316	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	613	1398	44	76	41
RTOR Reduction (vph)	112	53	4	0	0	0
Lane Group Flow (vph)	43	599	1438	0	117	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	21.0	21.0	21.0		21.0	
Effective Green, g (s)	21.0	21.0	21.0		21.0	
Actuated g/C Ratio	0.28	0.28	0.28		0.28	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	401	1684	1417		928	
v/s Ratio Prot	0.03	c0.10	c0.28		c0.04	
v/s Ratio Perm						
v/c Ratio	0.11	0.36	1.01		0.13	
Uniform Delay, d1	20.0	21.6	27.0		20.2	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.6	27.6		0.3	
Delay (s)	20.6	22.2	54.6		20.4	
Level of Service	C	C	D		C	
Approach Delay (s)		21.9	54.6		20.4	
Approach LOS		C	D		C	
Intersection Summary						
HCM 2000 Control Delay			41.7		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.50			
Actuated Cycle Length (s)			75.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			50.9%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑	↑	↑↑↑				
Volume (vph)	0	0	0	0	249	802	36	1783	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0	4.0	4.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					3076	1441	1433	6035				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					3076	1441	1433	6035				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	249	802	36	1783	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	9	10	14	7	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	641	391	18	1780	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					25.0	25.0	42.0	42.0				
Effective Green, g (s)					25.0	25.0	42.0	42.0				
Actuated g/C Ratio					0.33	0.33	0.56	0.56				
Clearance Time (s)					4.0	4.0	4.0	4.0				
Lane Grp Cap (vph)					1025	480	802	3379				
v/s Ratio Prot					0.21							
v/s Ratio Perm						c0.27	0.01	0.30				
v/c Ratio					0.63	0.81	0.02	0.53				
Uniform Delay, d1					21.1	22.9	7.4	10.3				
Progression Factor					1.00	1.00	0.02	0.20				
Incremental Delay, d2					2.9	14.1	0.0	0.3				
Delay (s)					23.9	37.0	0.2	2.4				
Level of Service					C	D	A	A				
Approach Delay (s)		0.0			28.9			2.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.1			HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)					8.0		
Intersection Capacity Utilization		63.5%			ICU Level of Service					B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	155	87	12	130	101	49	238	17	328	294	85
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	155	87	12	130	101	49	238	17	328	294	85
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	269	243	168	136	475	232						
Volume Left (vph)	27	12	49	0	328	0						
Volume Right (vph)	87	101	0	17	0	85						
Hadj (s)	-0.14	-0.21	0.18	-0.05	0.38	-0.22						
Departure Headway (s)	7.2	7.3	8.0	7.8	7.5	6.9						
Degree Utilization, x	0.54	0.49	0.37	0.29	0.99	0.44						
Capacity (veh/h)	476	477	427	449	471	515						
Control Delay (s)	18.4	17.1	14.5	12.8	65.0	14.1						
Approach Delay (s)	18.4	17.1	13.7		48.3							
Approach LOS	C	C	B		E							
Intersection Summary												
Delay			31.1									
Level of Service			D									
Intersection Capacity Utilization			62.4%	ICU Level of Service		B						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	20	10	13	20	49	59	728	161	135	610	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	20	10	13	20	49	59	728	161	135	610	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	0.94	0.94	0.94	0.94	0.94		0.94					
vC, conflicting volume	1463	1929	347	1522	1890	444	694			889		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1367	1862	182	1430	1821	444	551			889		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	52	62	99	75	64	91	94			82		
cM capacity (veh/h)	55	52	781	52	56	561	956			758		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	56	82	423	525	440	389						
Volume Left	26	13	59	0	135	0						
Volume Right	10	49	0	161	0	84						
cSH	64	118	956	1700	758	1700						
Volume to Capacity	0.87	0.70	0.06	0.31	0.18	0.23						
Queue Length 95th (ft)	102	94	5	0	16	0						
Control Delay (s)	182.5	86.9	1.9	0.0	4.9	0.0						
Lane LOS	F	F	A		A							
Approach Delay (s)	182.5	86.9	0.8		2.6							
Approach LOS	F	F										
Intersection Summary												
Average Delay			10.6									
Intersection Capacity Utilization			67.7%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	133	28	10	118	117	77	464	18	106	554	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Flt		0.99			0.94			1.00			0.97	
Flt Protected		0.98			1.00			0.99			0.99	
Satd. Flow (prot)		1801			1739			3498			3413	
Flt Permitted		0.79			0.99			0.78			0.81	
Satd. Flow (perm)		1456			1717			2753			2793	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	133	28	10	118	117	77	464	18	106	554	162
RTOR Reduction (vph)	0	7	0	0	60	0	0	4	0	0	39	0
Lane Group Flow (vph)	0	260	0	0	185	0	0	555	0	0	783	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			29.0			29.0	
Effective Green, g (s)		18.0			18.0			29.0			29.0	
Actuated g/C Ratio		0.33			0.33			0.53			0.53	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		476			561			1451			1472	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.11			0.20			c0.28	
v/c Ratio		0.55			0.33			0.38			0.53	
Uniform Delay, d1		15.1			14.0			7.7			8.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.4			1.6			0.8			1.4	
Delay (s)		19.6			15.5			8.5			9.9	
Level of Service		B			B			A			A	
Approach Delay (s)		19.6			15.5			8.5			9.9	
Approach LOS		B			B			A			A	
Intersection Summary												
HCM 2000 Control Delay		11.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.54										
Actuated Cycle Length (s)		55.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		81.0%			ICU Level of Service			D				
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1162	339	84	0	0	0	0	479	582	879	477	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3286	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3286	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1162	339	84	0	0	0	0	479	582	879	477	0
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	86	0	0	0
Lane Group Flow (vph)	581	920	24	0	0	0	0	479	496	879	477	0
Turn Type	Split	NA	Prot					NA	Prot	Split	NA	
Protected Phases	4	4	4					2	2	6	6	
Permitted Phases												
Actuated Green, G (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Effective Green, g (s)	21.0	21.0	21.0					21.0	21.0	21.0	21.0	
Actuated g/C Ratio	0.28	0.28	0.28					0.28	0.28	0.28	0.28	
Clearance Time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	450	920	443					990	443	961	521	
v/s Ratio Prot	c0.36	0.28	0.01					0.14	c0.31	c0.26	0.26	
v/s Ratio Perm												
v/c Ratio	1.29	1.24dl	0.05					0.48	1.12	0.91	0.92	
Uniform Delay, d1	27.0	27.0	19.7					22.5	27.0	26.1	26.1	
Progression Factor	0.97	0.97	0.92					1.00	1.00	0.85	0.86	
Incremental Delay, d2	146.8	29.7	0.2					1.7	79.8	13.5	21.7	
Delay (s)	173.0	55.8	18.4					24.2	106.8	35.8	44.1	
Level of Service	F	E	B					C	F	D	D	
Approach Delay (s)		96.8			0.0			69.5			38.7	
Approach LOS		F			A			E			D	
Intersection Summary												
HCM 2000 Control Delay			69.9		HCM 2000 Level of Service					E		
HCM 2000 Volume to Capacity ratio			1.11									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			118.3%		ICU Level of Service					H		
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	327	174	791	112	402	0	0	902	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.91	0.91	1.00	0.95			0.91	
Frt				1.00	0.90	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1770	3037	1441	1770	3539			5052	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1770	3037	1441	1770	3539			5052	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	327	174	791	112	402	0	0	902	41
RTOR Reduction (vph)	0	0	0	0	269	269	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	327	301	126	112	402	0	0	936	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Effective Green, g (s)				24.0	24.0	24.0	9.0	43.0			30.0	
Actuated g/C Ratio				0.32	0.32	0.32	0.12	0.57			0.40	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				566	971	461	212	2029			2020	
v/s Ratio Prot				c0.18	0.10	0.09	c0.06	0.11			c0.19	
v/s Ratio Perm												
v/c Ratio				0.58	0.31	0.27	0.53	0.20			0.46	
Uniform Delay, d1				21.3	19.2	19.0	31.0	7.7			16.6	
Progression Factor				1.00	1.00	1.00	0.95	0.10			1.00	
Incremental Delay, d2				4.3	0.8	1.5	3.0	0.1			0.8	
Delay (s)				25.5	20.1	20.5	32.5	0.9			17.3	
Level of Service				C	C	C	C	A			B	
Approach Delay (s)		0.0			21.6			7.7			17.3	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			17.5									HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio			0.52									B
Actuated Cycle Length (s)			75.0									Sum of lost time (s)
Intersection Capacity Utilization			118.3%									12.0
Analysis Period (min)			15									ICU Level of Service
c Critical Lane Group												H

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑		↑	↑↑	
Volume (vph)	199	813	314	0	0	0	0	491	80	127	922	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		5036	1583					3465		1770	3539	
Flt Permitted		0.99	1.00					1.00		0.29	1.00	
Satd. Flow (perm)		5036	1583					3465		543	3539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	813	314	0	0	0	0	491	80	127	922	0
RTOR Reduction (vph)	0	0	74	0	0	0	0	22	0	0	0	0
Lane Group Flow (vph)	0	1012	240	0	0	0	0	549	0	127	922	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		20.0	20.0					20.0		32.0	32.0	
Effective Green, g (s)		20.0	20.0					20.0		32.0	32.0	
Actuated g/C Ratio		0.33	0.33					0.33		0.53	0.53	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Grp Cap (vph)		1678	527					1155		453	1887	
v/s Ratio Prot		c0.20						0.16		0.04	c0.26	
v/s Ratio Perm			0.15							0.11		
v/c Ratio		0.60	0.46					0.48		0.28	0.49	
Uniform Delay, d1		16.7	15.7					15.8		7.7	8.8	
Progression Factor		1.00	1.00					1.00		0.89	0.54	
Incremental Delay, d2		1.6	2.8					1.4		1.2	0.7	
Delay (s)		18.3	18.5					17.2		8.0	5.5	
Level of Service		B	B					B		A	A	
Approach Delay (s)		18.4			0.0			17.2			5.8	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			13.7					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			64.9%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	215	692	127	136	484	0	0	801	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3438		1770	3539			4994	
Flt Permitted					0.99		0.19	1.00			1.00	
Satd. Flow (perm)					3438		349	3539			4994	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	215	692	127	136	484	0	0	801	109
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	1016	0	136	484	0	0	881	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					20.0		32.0	32.0			20.0	
Effective Green, g (s)					20.0		32.0	32.0			20.0	
Actuated g/C Ratio					0.33		0.53	0.53			0.33	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1146		375	1887			1664	
v/s Ratio Prot					c0.30		c0.05	0.14			c0.18	
v/s Ratio Perm							0.15					
v/c Ratio					0.89		0.36	0.26			0.53	
Uniform Delay, d1					18.9		8.0	7.6			16.2	
Progression Factor					1.00		1.74	0.75			1.88	
Incremental Delay, d2					10.2		2.3	0.3			0.8	
Delay (s)					29.2		16.2	5.9			31.2	
Level of Service					C		B	A			C	
Approach Delay (s)		0.0			29.2			8.2			31.2	
Approach LOS		A			C			A			C	
Intersection Summary												
HCM 2000 Control Delay			24.8				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			64.9%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑			↑↑	
Volume (vph)	6	328	112	5	582	175	2	569	39	0	998	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3404			3416			3505			3479	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		3224			3256			3338			3479	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	328	112	5	582	175	2	569	39	0	998	127
RTOR Reduction (vph)	0	24	0	0	46	0	0	8	0	0	16	0
Lane Group Flow (vph)	0	422	0	0	716	0	0	602	0	0	1109	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		27.0			27.0			25.0			25.0	
Effective Green, g (s)		27.0			27.0			25.0			25.0	
Actuated g/C Ratio		0.45			0.45			0.42			0.42	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		1450			1465			1390			1449	
v/s Ratio Prot											c0.32	
v/s Ratio Perm		0.13			c0.22			0.18				
v/c Ratio		0.29			0.49			0.43			0.77	
Uniform Delay, d1		10.4			11.6			12.5			15.0	
Progression Factor		1.00			1.00			1.49			1.00	
Incremental Delay, d2		0.5			1.2			0.9			3.9	
Delay (s)		11.0			12.8			19.5			18.9	
Level of Service		B			B			B			B	
Approach Delay (s)		11.0			12.8			19.5			18.9	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.2			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			60.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			63.6%			ICU Level of Service			B			
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	87	39	18	83	0	0	0	0	9	32	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	9	32	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			260	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			260	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	95	98
cM capacity (veh/h)	1514			1460			649	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	25	34								
Volume Left	0	18	9	0								
Volume Right	39	0	0	18								
cSH	1700	1460	674	789								
Volume to Capacity	0.07	0.01	0.04	0.04								
Queue Length 95th (ft)	0	1	3	3								
Control Delay (s)	0.0	1.4	10.5	9.8								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.1									
Approach LOS			B									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	208	12	30	222	0	0	0	0	12	18	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	208	12	30	222	0	0	0	0	12	18	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	222			220			579	496	214	496	502	222
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			220			579	496	214	496	502	222
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	96	91
cM capacity (veh/h)	1347			1349			370	465	826	476	461	818
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	220	252	21	83								
Volume Left	0	30	12	0								
Volume Right	12	0	0	74								
cSH	1700	1349	469	754								
Volume to Capacity	0.13	0.02	0.04	0.11								
Queue Length 95th (ft)	0	2	4	9								
Control Delay (s)	0.0	1.1	13.0	10.4								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.1	10.9									
Approach LOS			B									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			38.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	170	185	234	134	88	86
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	170	185	234	134	88	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		470	340	525	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		470	340	525	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	90		34	74	79	92
cM capacity (veh/h)	1623		357	521	410	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	170	185	368	88	86	
Volume Left	170	0	234	0	0	
Volume Right	0	185	0	0	86	
cSH	1623	1700	403	410	1085	
Volume to Capacity	0.10	0.11	0.91	0.21	0.08	
Queue Length 95th (ft)	9	0	244	20	6	
Control Delay (s)	7.5	0.0	57.9	16.2	8.6	
Lane LOS	A		F	C	A	
Approach Delay (s)	3.6		57.9	12.4		
Approach LOS			F	B		
Intersection Summary						
Average Delay			27.6			
Intersection Capacity Utilization			42.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	334	1529	0	0	0	0	0	688	1207	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0	4.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		5040						5085	2787			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		5040						5085	2787			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	1529	0	0	0	0	0	688	1207	0	0	0
RTOR Reduction (vph)	0	77	0	0	0	0	0	0	13	0	0	0
Lane Group Flow (vph)	0	1786	0	0	0	0	0	688	1194	0	0	0
Turn Type	Perm	NA						NA	Perm			
Protected Phases		4						2				
Permitted Phases	4								2			
Actuated Green, G (s)		16.0						21.0	21.0			
Effective Green, g (s)		16.0						21.0	21.0			
Actuated g/C Ratio		0.36						0.47	0.47			
Clearance Time (s)		4.0						4.0	4.0			
Lane Grp Cap (vph)		1792						2373	1300			
v/s Ratio Prot								0.14				
v/s Ratio Perm		0.35							c0.43			
v/c Ratio		1.00						0.29	0.92			
Uniform Delay, d1		14.5						7.4	11.2			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		20.5						0.3	11.8			
Delay (s)		35.0						7.7	23.0			
Level of Service		C						A	C			
Approach Delay (s)		35.0			0.0			17.5			0.0	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		26.2						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.95										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)	8.0			
Intersection Capacity Utilization		87.9%						ICU Level of Service	E			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	622	450	0	0	0	0	691	39	106	117	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4783						1849		1770	1863	
Flt Permitted		0.99						1.00		0.22	1.00	
Satd. Flow (perm)		4783						1849		412	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	622	450	0	0	0	0	691	39	106	117	0
RTOR Reduction (vph)	0	196	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	1174	0	0	0	0	0	725	0	106	117	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		13.0						24.0		24.0	24.0	
Effective Green, g (s)		13.0						24.0		24.0	24.0	
Actuated g/C Ratio		0.29						0.53		0.53	0.53	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Lane Grp Cap (vph)		1381						986		219	993	
v/s Ratio Prot								c0.39			0.06	
v/s Ratio Perm		0.25								0.26		
v/c Ratio		0.85						0.74		0.48	0.12	
Uniform Delay, d1		15.1						8.1		6.6	5.2	
Progression Factor		1.00						1.00		0.57	0.47	
Incremental Delay, d2		6.7						4.9		7.4	0.2	
Delay (s)		21.8						12.9		11.2	2.7	
Level of Service		C						B		B	A	
Approach Delay (s)		21.8			0.0			12.9			6.7	
Approach LOS		C			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		17.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.78										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		103.2%						ICU Level of Service		G		
Analysis Period (min)		15										

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	11	389	53	474	434	0	0	248	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1863	1583	1770	1863			1863	1583
Flt Permitted				0.95	1.00	1.00	0.61	1.00			1.00	1.00
Satd. Flow (perm)				1770	1863	1583	1127	1863			1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	11	389	53	474	434	0	0	248	514
RTOR Reduction (vph)	0	0	0	0	0	40	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	11	389	13	474	434	0	0	248	514
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Effective Green, g (s)				11.0	11.0	11.0	26.0	26.0			26.0	45.0
Actuated g/C Ratio				0.24	0.24	0.24	0.58	0.58			0.58	1.00
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Grp Cap (vph)				432	455	386	651	1076			1076	1583
v/s Ratio Prot				0.01	c0.21			0.23			0.13	
v/s Ratio Perm						0.01	c0.42					0.32
v/c Ratio				0.03	0.85	0.03	0.73	0.40			0.23	0.32
Uniform Delay, d1				12.9	16.2	13.0	6.9	5.2			4.6	0.0
Progression Factor				0.67	0.67	0.62	0.61	0.67			1.08	1.00
Incremental Delay, d2				0.1	17.6	0.2	4.3	0.7			0.4	0.5
Delay (s)				8.7	28.5	8.2	8.5	4.2			5.4	0.5
Level of Service				A	C	A	A	A			A	A
Approach Delay (s)		0.0			25.6			6.5			2.1	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.0		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			103.2%		ICU Level of Service					G		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	1079	517	0	0	0	0	313	144	36	338	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4713	1362					1784			1854	
Flt Permitted		1.00	1.00					1.00			0.91	
Satd. Flow (perm)		4713	1362					1784			1698	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	41	1079	517	0	0	0	0	313	144	36	338	0
RTOR Reduction (vph)	0	35	170	0	0	0	0	32	0	0	0	0
Lane Group Flow (vph)	0	1235	197	0	0	0	0	425	0	0	374	0
Turn Type	Split	NA	Perm					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			4							6		
Actuated Green, G (s)		21.0	21.0					16.0			16.0	
Effective Green, g (s)		21.0	21.0					16.0			16.0	
Actuated g/C Ratio		0.47	0.47					0.36			0.36	
Clearance Time (s)		4.0	4.0					4.0			4.0	
Lane Grp Cap (vph)		2199	635					634			603	
v/s Ratio Prot		c0.26						c0.24				
v/s Ratio Perm			0.14								0.22	
v/c Ratio		0.56	0.31					0.67			0.62	
Uniform Delay, d1		8.7	7.5					12.3			12.0	
Progression Factor		1.00	1.00					1.02			1.00	
Incremental Delay, d2		1.0	1.3					5.3			4.7	
Delay (s)		9.7	8.8					17.8			16.7	
Level of Service		A	A					B			B	
Approach Delay (s)		9.5			0.0			17.8			16.7	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			12.1					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)			8.0	
Intersection Capacity Utilization			80.0%					ICU Level of Service			D	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	725	35	0	0	0	0	0	0	931	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3265	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3265	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	725	35	0	0	0	0	0	0	931	142	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	35	35	0
Lane Group Flow (vph)	0	749	0	0	0	0	0	0	0	430	573	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1561	
v/s Ratio Prot		c0.15										
v/s Ratio Perm										c0.27	0.18	
v/c Ratio		0.43								0.56	0.37	
Uniform Delay, d1		11.5								8.5	7.6	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.8								2.9	0.7	
Delay (s)		12.2								11.5	8.3	
Level of Service		B								B	A	
Approach Delay (s)		12.2			0.0			0.0			9.6	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		42.1%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	18	210	0	0	0	0	0	1100	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					5065						4955	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					5065						4955	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	18	210	0	0	0	0	0	1100	227
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	70	0
Lane Group Flow (vph)	0	0	0	0	212	0	0	0	0	0	1257	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1688						2422	
v/s Ratio Prot					c0.04						c0.25	
v/s Ratio Perm												
v/c Ratio					0.13						0.52	
Uniform Delay, d1					10.4						7.9	
Progression Factor					0.88						0.55	
Incremental Delay, d2					0.1						0.7	
Delay (s)					9.4						5.0	
Level of Service					A						A	
Approach Delay (s)		0.0			9.4			0.0			5.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			5.7		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			42.1%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1045	342	0	0	0	0	0	0	309	905	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.96									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		6171									5021	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		6171									5021	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1045	342	0	0	0	0	0	0	309	905	0
RTOR Reduction (vph)	0	53	0	0	0	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	1334	0	0	0	0	0	0	0	0	1201	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0									21.0	
Effective Green, g (s)		16.0									21.0	
Actuated g/C Ratio		0.36									0.47	
Clearance Time (s)		4.0									4.0	
Lane Grp Cap (vph)		2194									2343	
v/s Ratio Prot		c0.22										
v/s Ratio Perm											0.24	
v/c Ratio		0.61									0.51	
Uniform Delay, d1		11.9									8.4	
Progression Factor		0.53									1.00	
Incremental Delay, d2		1.1									0.8	
Delay (s)		7.5									9.2	
Level of Service		A									A	
Approach Delay (s)		7.5			0.0			0.0			9.2	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.3				HCM 2000 Level of Service				A	
HCM 2000 Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			51.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	230	0	83	5	0	1	263	679	0	0	736	251
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	230	0	83	5	0	1	263	679	0	0	736	251
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1728	2066	494	1656	2192	340	987			679		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1728	2066	494	1656	2192	340	987			679		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	84	87	100	100	62			100		
cM capacity (veh/h)	40	33	521	38	28	656	696			909		
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	230	83	263	340	340	491	496					
Volume Left	230	0	263	0	0	0	0					
Volume Right	0	83	0	0	0	0	251					
cSH	40	521	696	1700	1700	1700	1700					
Volume to Capacity	5.75	0.16	0.38	0.20	0.20	0.29	0.29					
Queue Length 95th (ft)	Err	14	44	0	0	0	0					
Control Delay (s)	Err	13.2	13.3	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	7351.0		3.7			0.0						
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service					H		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

7/24/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Volume (vph)	193	77	136	953	955	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1729		1770	1863	1863	1583
Flt Permitted	0.97		0.22	1.00	1.00	1.00
Satd. Flow (perm)	1729		414	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	193	77	136	953	955	210
RTOR Reduction (vph)	25	0	0	0	0	126
Lane Group Flow (vph)	245	0	136	953	955	84
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		18.0	18.0	18.0	18.0
Effective Green, g (s)	19.0		18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.42		0.40	0.40	0.40	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Lane Grp Cap (vph)	730		165	745	745	633
v/s Ratio Prot	c0.14			0.51	c0.51	
v/s Ratio Perm			0.33			0.05
v/c Ratio	0.34		0.82	1.28	1.28	0.13
Uniform Delay, d1	8.7		12.1	13.5	13.5	8.6
Progression Factor	1.00		1.00	1.00	0.98	1.44
Incremental Delay, d2	1.2		35.4	135.9	136.9	0.4
Delay (s)	10.0		47.4	149.4	150.1	12.8
Level of Service	A		D	F	F	B
Approach Delay (s)	10.0			136.6	125.3	
Approach LOS	A			F	F	

Intersection Summary

HCM 2000 Control Delay	117.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	1016	140	0	0	0	0	917	396	6	261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.99						0.95			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4966						3379			1861	
Flt Permitted		0.99						1.00			0.60	
Satd. Flow (perm)		4966						3379			1111	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	246	1016	140	0	0	0	0	917	396	6	261	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	45	0	0	0	0
Lane Group Flow (vph)	0	1372	0	0	0	0	0	1268	0	0	267	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1126			370	
v/s Ratio Prot		c0.28						c0.38				
v/s Ratio Perm											0.24	
v/c Ratio		0.57						1.13			0.72	
Uniform Delay, d1		8.1						15.0			13.2	
Progression Factor		1.00						1.51			1.25	
Incremental Delay, d2		1.0						60.1			11.3	
Delay (s)		9.1						82.8			27.8	
Level of Service		A						F			C	
Approach Delay (s)		9.1			0.0			82.8			27.8	
Approach LOS		A			A			F			C	
Intersection Summary												
HCM 2000 Control Delay		43.2						HCM 2000 Level of Service		D		
HCM 2000 Volume to Capacity ratio		0.79										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		72.4%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	198	85	506	163	678	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					3093	1441		3505				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					3093	1441		3505				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	198	85	506	163	678	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	37	37	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	499	216	0	841	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1512	704		1168				
v/s Ratio Prot					c0.16			c0.24				
v/s Ratio Perm						0.15						
v/c Ratio					0.33	0.31		0.72				
Uniform Delay, d1					7.0	6.9		13.2				
Progression Factor					1.00	1.00		0.93				
Incremental Delay, d2					0.6	1.1		0.4				
Delay (s)					7.6	8.0		12.6				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.7			12.6			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.2				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			51.0%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	1035	0	0	0	0	0	1060	211	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		6365						4959				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		6365						4959				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	1035	0	0	0	0	0	1060	211	0	0	0
RTOR Reduction (vph)	0	17	0	0	0	0	0	24	0	0	0	0
Lane Group Flow (vph)	0	1179	0	0	0	0	0	1247	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		19.0						18.0				
Effective Green, g (s)		19.0						18.0				
Actuated g/C Ratio		0.42						0.40				
Clearance Time (s)		4.0						4.0				
Lane Grp Cap (vph)		2687						1983				
v/s Ratio Prot								c0.25				
v/s Ratio Perm		0.19										
v/c Ratio		0.44						0.63				
Uniform Delay, d1		9.2						10.8				
Progression Factor		1.05						0.86				
Incremental Delay, d2		0.4						1.3				
Delay (s)		10.1						10.7				
Level of Service		B						B				
Approach Delay (s)		10.1			0.0			10.7			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		10.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.53										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		71.9%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	74	885	57	56	734	623	39	19	27	750	40	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	885	57	56	734	623	39	19	27	750	40	97
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	1016	790	623	85	887							
Volume Left (vph)	74	56	0	39	750							
Volume Right (vph)	57	0	623	27	97							
Hadj (s)	0.01	0.07	-0.67	-0.06	0.14							
Departure Headway (s)	7.7	8.1	7.4	9.5	7.7							
Degree Utilization, x	2.17	1.78	1.28	0.22	1.90							
Capacity (veh/h)	477	449	496	374	476							
Control Delay (s)	549.7	379.4	162.2	15.2	430.2							
Approach Delay (s)	549.7	283.6		15.2	430.2							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			394.6									
Level of Service			F									
Intersection Capacity Utilization			162.1%	ICU Level of Service		H						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	216	59	166	581	113	33	534	49	89	815	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	235	64	180	632	123	36	580	53	97	886	180
RTOR Reduction (vph)	0	0	48	0	15	0	0	6	0	0	0	155
Lane Group Flow (vph)	263	235	16	180	740	0	36	627	0	97	886	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Effective Green, g (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Actuated g/C Ratio	0.14	0.24	0.24	0.16	0.27		0.06	0.30		0.09	0.34	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	865	387	290	927		97	1064		167	1217	222
v/s Ratio Prot	0.08	0.07		c0.10	c0.21		0.02	0.18		c0.05	c0.25	0.02
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.27	0.04	0.62	0.80		0.37	0.59		0.58	0.73	0.11
Uniform Delay, d1	33.4	25.5	24.0	32.4	28.4		38.0	24.6		36.2	23.9	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.0	4.1	4.8		2.4	2.4		5.1	3.8	0.2
Delay (s)	34.7	25.7	24.1	36.5	33.2		40.4	27.0		41.2	27.8	31.5
Level of Service	C	C	C	D	C		D	C		D	C	C
Approach Delay (s)		29.7			33.9			27.7			29.5	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.4			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			65.8%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

7/24/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	321	448	315	89	240	170	87	566	39	130	1150	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	487	342	97	261	185	95	615	42	141	1250	129
RTOR Reduction (vph)	0	115	0	0	141	0	0	0	30	0	0	69
Lane Group Flow (vph)	349	714	0	97	305	0	95	615	12	141	1250	60
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Effective Green, g (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Actuated g/C Ratio	0.24	0.31		0.10	0.17		0.07	0.30	0.30	0.10	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	1028		177	559		254	1050	469	359	1158	518
v/s Ratio Prot	c0.20	c0.21		0.05	0.09		0.03	0.17		c0.04	c0.35	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.82	0.69		0.55	0.55		0.37	0.59	0.03	0.39	1.08	0.12
Uniform Delay, d1	30.4	25.8		36.4	32.3		37.4	25.4	21.2	35.5	28.6	20.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	2.1		3.4	1.1		0.9	2.4	0.1	0.7	50.7	0.5
Delay (s)	41.9	27.8		39.8	33.4		38.4	27.8	21.3	36.2	79.2	20.4
Level of Service	D	C		D	C		D	C	C	D	E	C
Approach Delay (s)		32.0			34.6			28.8			70.2	
Approach LOS		C			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			46.3				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			84.9				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			78.3%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	73	20	10	200	25	41	10	3	30	54	93
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	73	20	10	200	25	41	10	3	30	54	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	225			93			371	376	46	325	374	112
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	225			93			371	376	46	325	374	112
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			91	98	100	95	90	90
cM capacity (veh/h)	1341			1499			457	540	1013	583	542	919
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	60	56	110	125	54	30	36	111				
Volume Left	24	0	10	0	41	30	0	0				
Volume Right	0	20	0	25	3	0	0	93				
cSH	1341	1700	1499	1700	486	583	542	826				
Volume to Capacity	0.02	0.03	0.01	0.07	0.11	0.05	0.07	0.13				
Queue Length 95th (ft)	1	0	1	0	9	4	5	12				
Control Delay (s)	3.2	0.0	0.7	0.0	13.3	11.5	12.1	10.0				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.6		0.3		13.3	10.7						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			31.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	533	29	0	0	0	0	53	17	52	167	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.96		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5042						3410		1770	5085	
Flt Permitted		1.00						1.00		0.71	1.00	
Satd. Flow (perm)		5042						3410		1321	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	533	29	0	0	0	0	53	17	52	167	0
RTOR Reduction (vph)	0	8	0	0	0	0	0	13	0	0	0	0
Lane Group Flow (vph)	0	564	0	0	0	0	0	57	0	52	167	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		45.5						19.5		19.5	19.5	
Effective Green, g (s)		45.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.61						0.26		0.26	0.26	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3058						886		343	1322	
v/s Ratio Prot								0.02			0.03	
v/s Ratio Perm		0.11								c0.04		
v/c Ratio		0.18						0.06		0.15	0.13	
Uniform Delay, d1		6.5						20.9		21.4	21.2	
Progression Factor		1.00						1.01		0.59	0.60	
Incremental Delay, d2		0.1						0.1		0.9	0.2	
Delay (s)		6.7						21.1		13.6	12.9	
Level of Service		A						C		B	B	
Approach Delay (s)		6.7			0.0			21.1			13.1	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		9.5						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.17										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		29.9%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	96	270	255	9	20	46	0	0	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3493	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.68	1.00			1.00
Satd. Flow (perm)					3493	1583		1259	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	96	270	255	9	20	46	0	0	120
RTOR Reduction (vph)	0	0	0	0	0	205	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	366	50	0	29	46	0	0	120
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					14.7	14.7		51.3	51.3			51.3
Effective Green, g (s)					14.7	14.7		51.3	51.3			51.3
Actuated g/C Ratio					0.20	0.20		0.68	0.68			0.68
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					684	310		861	1274			2420
v/s Ratio Prot									0.02			c0.03
v/s Ratio Perm					0.10	0.03		0.02				
v/c Ratio					0.54	0.16		0.03	0.04			0.05
Uniform Delay, d1					27.1	25.0		3.8	3.8			3.9
Progression Factor					0.83	0.43		0.60	0.59			0.89
Incremental Delay, d2					0.8	0.2		0.1	0.1			0.0
Delay (s)					23.2	10.9		2.4	2.3			3.5
Level of Service					C	B		A	A			A
Approach Delay (s)		0.0			18.2				2.3			3.6
Approach LOS		A			B				A			A
Intersection Summary												
HCM 2000 Control Delay			14.0		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			29.9%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	45
RTOR Reduction (vph)	14
Lane Group Flow (vph)	31
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	51.3
Effective Green, g (s)	51.3
Actuated g/C Ratio	0.68
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1082
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.03
Uniform Delay, d1	3.8
Progression Factor	1.03
Incremental Delay, d2	0.0
Delay (s)	4.0
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	268	29	37	581	36	118	146	12	40	76	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5011		1770	5041		1770	1842		1770	3539	1583
Flt Permitted	0.32	1.00		0.56	1.00		0.70	1.00		0.66	1.00	1.00
Satd. Flow (perm)	592	5011		1049	5041		1313	1842		1223	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	268	29	37	581	36	118	146	12	40	76	75
RTOR Reduction (vph)	0	23	0	0	13	0	0	2	0	0	0	25
Lane Group Flow (vph)	42	274	0	37	604	0	118	156	0	40	76	50
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	15.9	15.9		15.9	15.9		49.6	49.6		49.6	49.6	49.6
Effective Green, g (s)	15.9	15.9		15.9	15.9		49.6	49.6		49.6	49.6	49.6
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.66	0.66		0.66	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	125	1062		222	1068		868	1218		808	2340	1046
v/s Ratio Prot		0.05			c0.12			0.08			0.02	
v/s Ratio Perm	0.07			0.04			c0.09			0.03		0.03
v/c Ratio	0.34	0.26		0.17	0.57		0.14	0.13		0.05	0.03	0.05
Uniform Delay, d1	25.1	24.6		24.1	26.5		4.7	4.7		4.4	4.4	4.4
Progression Factor	1.00	1.00		1.00	1.00		0.68	0.67		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.1		0.4	0.7		0.3	0.2		0.1	0.0	0.1
Delay (s)	26.7	24.8		24.5	27.1		3.5	3.4		4.6	4.4	4.5
Level of Service	C	C		C	C		A	A		A	A	A
Approach Delay (s)		25.0			27.0			3.4			4.5	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			19.1			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			75.0			Sum of lost time (s)			9.5			
Intersection Capacity Utilization			42.9%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	139	772	404	27	79	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5427	4534		2959	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5427	4534		2959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	772	404	27	79	59
RTOR Reduction (vph)	65	34	6	0	0	0
Lane Group Flow (vph)	60	752	425	0	138	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	55.0	55.0	24.0		21.0	
Effective Green, g (s)	55.0	55.0	24.0		21.0	
Actuated g/C Ratio	0.48	0.48	0.21		0.18	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	616	2595	946		540	
v/s Ratio Prot	0.05	c0.14	c0.09		c0.05	
v/s Ratio Perm						
v/c Ratio	0.10	0.29	0.45		0.26	
Uniform Delay, d1	16.4	18.2	39.7		40.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.3	0.3	1.5		0.3	
Delay (s)	16.7	18.5	41.3		40.5	
Level of Service	B	B	D		D	
Approach Delay (s)		18.2	41.3		40.5	
Approach LOS		B	D		D	
Intersection Summary						
HCM 2000 Control Delay			27.0		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.32			
Actuated Cycle Length (s)			115.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			68.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	177	214	37	482	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2895	1297	1290	5430				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2895	1297	1290	5430				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	177	214	37	482	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	41	54	21	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	228	68	12	477	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					64.0	64.0	41.5	41.5				
Effective Green, g (s)					64.0	64.0	41.5	41.5				
Actuated g/C Ratio					0.56	0.56	0.36	0.36				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1611	721	465	1959				
v/s Ratio Prot					0.08							
v/s Ratio Perm						0.05	0.01	0.09				
v/c Ratio					0.14	0.09	0.03	0.24				
Uniform Delay, d1					12.3	11.9	23.7	25.8				
Progression Factor					1.00	1.00	1.90	1.19				
Incremental Delay, d2					0.2	0.3	0.1	0.3				
Delay (s)					12.5	12.2	45.2	31.0				
Level of Service					B	B	D	C				
Approach Delay (s)		0.0			12.4			31.9			0.0	
Approach LOS		A			B			C			A	
Intersection Summary												
HCM 2000 Control Delay			23.5									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			115.0									
Intersection Capacity Utilization			46.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	29	4	7	72	78	3	7	0	63	20	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	29	4	7	72	78	3	7	0	63	20	13
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	40	157	10	73	23							
Volume Left (vph)	7	7	3	63	0							
Volume Right (vph)	4	78	0	0	13							
Hadj (s)	0.01	-0.26	0.09	0.47	-0.36							
Departure Headway (s)	4.3	4.0	4.6	5.4	4.6							
Degree Utilization, x	0.05	0.17	0.01	0.11	0.03							
Capacity (veh/h)	800	884	732	636	750							
Control Delay (s)	7.6	7.8	7.7	7.9	6.5							
Approach Delay (s)	7.6	7.8	7.7	7.5								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.7									
Level of Service			A									
Intersection Capacity Utilization			26.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	4	4	9	29	34	4	82	8	32	115	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	4	4	9	29	34	4	82	8	32	115	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	284	284	65	222	288	45	130			90		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	284	284	65	222	288	45	130			90		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	95	97	100			98		
cM capacity (veh/h)	591	608	986	696	606	1015	1453			1503		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	17	72	45	49	90	72						
Volume Left	9	9	4	0	32	0						
Volume Right	4	34	0	8	0	15						
cSH	657	763	1453	1700	1503	1700						
Volume to Capacity	0.03	0.09	0.00	0.03	0.02	0.04						
Queue Length 95th (ft)	2	8	0	0	2	0						
Control Delay (s)	10.6	10.2	0.7	0.0	2.8	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	10.6	10.2	0.3		1.5							
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			19.2%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	33	21	4	42	37	10	97	9	39	129	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.94			0.94			0.99			0.96	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1754			1746			3483			3363	
Flt Permitted	0.70	1.00			0.99			0.93			0.90	
Satd. Flow (perm)	1310	1754			1739			3263			3054	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	33	21	4	42	37	10	97	9	39	129	65
RTOR Reduction (vph)	0	12	0	0	21	0	0	5	0	0	36	0
Lane Group Flow (vph)	34	42	0	0	62	0	0	111	0	0	197	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	558	748			741			1479			1384	
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.03				0.04			0.03			0.06	
v/c Ratio	0.06	0.06			0.08			0.08			0.14	
Uniform Delay, d1	12.7	12.6			12.8			11.6			12.0	
Progression Factor	1.00	1.00			1.00			1.00			0.61	
Incremental Delay, d2	0.2	0.1			0.2			0.1			0.2	
Delay (s)	12.9	12.8			13.0			11.7			7.5	
Level of Service	B	B			B			B			A	
Approach Delay (s)		12.8			13.0			11.7			7.5	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.2									
HCM 2000 Volume to Capacity ratio			0.11									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			26.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	705	134	75	0	0	0	0	125	210	422	247	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	134	75	0	0	0	0	125	210	422	247	0
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	136	0	0	0
Lane Group Flow (vph)	352	487	21	0	0	0	0	125	74	422	247	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	20.6	20.6	20.6					26.5	26.5	14.4	44.4	
Effective Green, g (s)	20.6	20.6	20.6					26.5	26.5	14.4	44.4	
Actuated g/C Ratio	0.27	0.27	0.27					0.35	0.35	0.19	0.59	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	442	898	434					1250	559	659	1102	
v/s Ratio Prot	c0.22	0.15	0.01					0.04	0.05	c0.12	c0.13	
v/s Ratio Perm												
v/c Ratio	0.80	0.54	0.05					0.10	0.13	0.64	0.22	
Uniform Delay, d1	25.3	23.2	20.0					16.3	16.5	27.9	7.2	
Progression Factor	0.96	0.97	0.78					1.09	1.68	1.02	1.30	
Incremental Delay, d2	9.6	0.7	0.0					0.2	0.5	2.0	0.1	
Delay (s)	33.7	23.2	15.6					17.9	28.1	30.4	9.4	
Level of Service	C	C	B					B	C	C	A	
Approach Delay (s)		26.6			0.0			24.3			22.6	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			24.8		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				13.5			
Intersection Capacity Utilization			94.2%		ICU Level of Service				F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	365	194	661	19	137	0	0	335	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4497	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4497	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	365	194	661	19	137	0	0	335	44
RTOR Reduction (vph)	0	0	0	0	0	423	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	365	194	238	19	137	0	0	362	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				27.0	27.0	27.0	3.8	40.0			32.2	
Effective Green, g (s)				27.0	27.0	27.0	3.8	40.0			32.2	
Actuated g/C Ratio				0.36	0.36	0.36	0.05	0.53			0.43	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				573	1146	513	80	1698			1930	
v/s Ratio Prot				c0.23	0.06	0.17	c0.01	0.04			c0.08	
v/s Ratio Perm												
v/c Ratio				0.64	0.17	0.46	0.24	0.08			0.19	
Uniform Delay, d1				19.9	16.4	18.4	34.2	8.5			13.3	
Progression Factor				1.00	1.00	1.00	0.65	0.45			1.00	
Incremental Delay, d2				2.3	0.1	0.7	1.3	0.1			0.2	
Delay (s)				22.3	16.4	19.1	23.4	3.9			13.5	
Level of Service				C	B	B	C	A			B	
Approach Delay (s)		0.0			19.6			6.3			13.5	
Approach LOS		A			B			A			B	
Intersection Summary												
HCM 2000 Control Delay			17.1									
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			94.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	525	104	0	0	0	0	410	78	82	413	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5610						3109		1593	3185	
Flt Permitted		1.00						1.00		0.43	1.00	
Satd. Flow (perm)		5610						3109		716	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	525	104	0	0	0	0	410	78	82	413	0
RTOR Reduction (vph)	0	52	0	0	0	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	647	0	0	0	0	0	463	0	82	413	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.0						21.0		29.0	29.0	
Effective Green, g (s)		23.0						21.0		29.0	29.0	
Actuated g/C Ratio		0.38						0.35		0.48	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		2150						1088		404	1539	
v/s Ratio Prot		c0.12						c0.15		0.01	c0.13	
v/s Ratio Perm										0.08		
v/c Ratio		0.30						0.43		0.20	0.27	
Uniform Delay, d1		12.9						14.9		10.4	9.2	
Progression Factor		1.00						1.00		0.45	0.42	
Incremental Delay, d2		0.1						1.2		0.2	0.4	
Delay (s)		13.0						16.1		4.9	4.3	
Level of Service		B						B		A	A	
Approach Delay (s)		13.0			0.0			16.1			4.4	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		51.5%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑			↑↑↑	
Volume (vph)	0	0	0	86	296	63	92	365	0	0	393	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4437		1593	3185			4521	
Flt Permitted					0.99		0.49	1.00			1.00	
Satd. Flow (perm)					4437		827	3185			4521	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	86	296	63	92	365	0	0	393	35
RTOR Reduction (vph)	0	0	0	0	36	0	0	0	0	0	18	0
Lane Group Flow (vph)	0	0	0	0	409	0	92	365	0	0	411	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1922		409	1380			1356	
v/s Ratio Prot					c0.09		0.01	c0.11			c0.09	
v/s Ratio Perm							0.08					
v/c Ratio					0.21		0.22	0.26			0.30	
Uniform Delay, d1					10.6		10.8	10.9			16.2	
Progression Factor					1.00		0.27	0.32			1.91	
Incremental Delay, d2					0.3		1.2	0.4			0.5	
Delay (s)					10.9		4.1	3.9			31.4	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			10.9			3.9			31.4	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			51.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	273	78	1	268	91	0	355	24	0	492	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3079			3064			3155			3124	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		2932			2924			3155			3124	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	273	78	1	268	91	0	355	24	0	492	73
RTOR Reduction (vph)	0	44	0	0	56	0	0	8	0	0	20	0
Lane Group Flow (vph)	0	310	0	0	304	0	0	371	0	0	546	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.5			21.5			27.5			27.5	
Effective Green, g (s)		21.5			21.5			27.5			27.5	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1050			1047			1446			1431	
v/s Ratio Prot								0.12			c0.17	
v/s Ratio Perm		c0.11			0.10							
v/c Ratio		0.30			0.29			0.26			0.38	
Uniform Delay, d1		13.8			13.8			10.0			10.7	
Progression Factor		1.00			1.00			1.49			1.00	
Incremental Delay, d2		0.7			0.7			0.4			0.8	
Delay (s)		14.5			14.5			15.3			11.4	
Level of Service		B			B			B			B	
Approach Delay (s)		14.5			14.5			15.3			11.4	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		40.4%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	12	52	0	0	0	0	12	6	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	12	52	0	0	0	0	12	6	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	52			41			122	110	34	110	117	52
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52			41			122	110	34	110	117	52
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	99	99
cM capacity (veh/h)	1554			1568			834	775	1040	864	767	1016
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	64	15	13								
Volume Left	0	12	12	0								
Volume Right	15	0	0	10								
cSH	1700	1568	843	945								
Volume to Capacity	0.02	0.01	0.02	0.01								
Queue Length 95th (ft)	0	1	1	1								
Control Delay (s)	0.0	1.4	9.3	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.1									
Approach LOS			A									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			20.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	21	13	8	23	0	0	0	0	6	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	21	13	8	23	0	0	0	0	6	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	23			34			70	66	28	66	73	23
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			34			70	66	28	66	73	23
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1592			1578			914	820	1048	923	813	1054
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	34	31	8	4								
Volume Left	0	8	6	0								
Volume Right	13	0	0	2								
cSH	1700	1578	899	935								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	0	1	0								
Control Delay (s)	0.0	1.9	9.0	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.9	9.0									
Approach LOS			A									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			18.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	28	70	91	25	22	54
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	28	70	91	25	22	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		121	56	126	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		121	56	126	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	98		88	97	97	95
cM capacity (veh/h)	1623		783	821	751	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	28	70	116	22	54	
Volume Left	28	0	91	0	0	
Volume Right	0	70	0	0	54	
cSH	1623	1700	791	751	1085	
Volume to Capacity	0.02	0.04	0.15	0.03	0.05	
Queue Length 95th (ft)	1	0	13	2	4	
Control Delay (s)	7.3	0.0	10.3	9.9	8.5	
Lane LOS	A		B	A	A	
Approach Delay (s)	2.1		10.3	8.9		
Approach LOS			B	A		
Intersection Summary						
Average Delay	7.2					
Intersection Capacity Utilization	23.0%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	214	0	0	0	0	0	527	1177	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4533						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4533						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	214	0	0	0	0	0	527	1177	0	0	0
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	539	0	0	0
Lane Group Flow (vph)	0	237	0	0	0	0	0	527	638	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		27.0						23.0	29.0			
Effective Green, g (s)		27.0						23.0	29.0			
Actuated g/C Ratio		0.45						0.38	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2039						1754	1212			
v/s Ratio Prot								0.12				
v/s Ratio Perm		0.05							c0.25			
v/c Ratio		0.12						0.30	0.53			
Uniform Delay, d1		9.6						12.9	10.7			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.1	0.4			
Delay (s)		9.7						13.0	11.2			
Level of Service		A						B	B			
Approach Delay (s)		9.7			0.0			11.7			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.4										
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		60.0										
Intersection Capacity Utilization		92.2%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	366	373	0	0	0	0	170	33	66	69	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4739						1822		1770	1863	
Flt Permitted		0.99						1.00		0.62	1.00	
Satd. Flow (perm)		4739						1822		1163	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	260	366	373	0	0	0	0	170	33	66	69	0
RTOR Reduction (vph)	0	143	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	856	0	0	0	0	0	194	0	66	69	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2179						716		457	732	
v/s Ratio Prot								c0.11			0.04	
v/s Ratio Perm		0.18								0.06		
v/c Ratio		0.39						0.27		0.14	0.09	
Uniform Delay, d1		13.3						15.4		14.6	14.3	
Progression Factor		1.00						1.00		0.68	0.70	
Incremental Delay, d2		0.5						0.9		0.7	0.3	
Delay (s)		13.9						16.4		10.7	10.3	
Level of Service		B						B		B	B	
Approach Delay (s)		13.9			0.0			16.4			10.5	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		65.1%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↷	↷	↰	↷			↷	↰
Volume (vph)	0	0	0	2	279	50	232	238	0	0	158	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.66	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1101	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	279	50	232	238	0	0	158	1262
RTOR Reduction (vph)	0	0	0	0	0	37	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	279	13	232	238	0	0	158	1262
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	653	994			994	1425
v/s Ratio Prot				0.00	0.17			0.14			0.09	
v/s Ratio Perm						0.01	0.21					c0.89
v/c Ratio				0.00	0.64	0.04	0.36	0.24			0.16	0.89
Uniform Delay, d1				20.6	24.6	20.7	7.9	7.2			6.8	0.0
Progression Factor				1.00	1.00	1.00	1.22	1.22			1.00	1.00
Incremental Delay, d2				0.0	7.1	0.2	1.4	0.5			0.3	8.4
Delay (s)				20.6	31.7	20.9	11.0	9.4			7.2	8.4
Level of Service				C	C	C	B	A			A	A
Approach Delay (s)		0.0			30.0			10.2			8.3	
Approach LOS		A			C			B			A	
Intersection Summary												
HCM 2000 Control Delay			11.9									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			75.0								11.0	Sum of lost time (s)
Intersection Capacity Utilization			65.1%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	442	1093	0	0	0	0	265	67	20	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3971	1226					1631			1670	
Flt Permitted		1.00	1.00					1.00			0.97	
Satd. Flow (perm)		3971	1226					1631			1625	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	442	1093	0	0	0	0	265	67	20	255	0
RTOR Reduction (vph)	0	349	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	672	546	0	0	0	0	317	0	0	275	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		19.0	60.0					32.0			32.0	
Effective Green, g (s)		19.0	60.0					32.0			32.0	
Actuated g/C Ratio		0.32	1.00					0.53			0.53	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1257	1226					869			866	
v/s Ratio Prot		0.17						0.19				
v/s Ratio Perm			c0.45								0.17	
v/c Ratio		0.53	0.45					0.36			0.32	
Uniform Delay, d1		16.9	0.0					8.1			7.9	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		1.6	1.2					1.2			1.0	
Delay (s)		18.5	1.2					9.3			8.8	
Level of Service		B	A					A			A	
Approach Delay (s)		12.5			0.0			9.3			8.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.5									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			60.0								9.0	Sum of lost time (s)
Intersection Capacity Utilization			60.0%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↗↑	
Volume (vph)	0	416	17	0	0	0	0	0	0	548	98	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5055								1610	3270	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5055								1610	3270	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	17	0	0	0	0	0	0	548	98	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	119	119	0
Lane Group Flow (vph)	0	424	0	0	0	0	0	0	0	155	253	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1563	
v/s Ratio Prot		c0.08										
v/s Ratio Perm										c0.10	0.08	
v/c Ratio		0.24								0.20	0.16	
Uniform Delay, d1		10.7								6.9	6.8	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.3								0.6	0.2	
Delay (s)		11.0								7.5	7.0	
Level of Service		B								A	A	
Approach Delay (s)		11.0			0.0			0.0			7.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.7									HCM 2000 Level of Service A
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			46.0									Sum of lost time (s) 8.0
Intersection Capacity Utilization			29.2%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	31	164	0	0	0	0	0	610	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4541						4401	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4541						4401	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	31	164	0	0	0	0	0	610	210
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	174	0	0	0	0	0	713	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1513						2151	
v/s Ratio Prot					c0.04						c0.16	
v/s Ratio Perm												
v/c Ratio					0.12						0.33	
Uniform Delay, d1					10.4						7.0	
Progression Factor					1.11						1.00	
Incremental Delay, d2					0.1						0.4	
Delay (s)					11.7						7.4	
Level of Service					B						A	
Approach Delay (s)		0.0			11.7			0.0			7.4	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			29.2%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	331	193	0	0	0	0	0	0	121	578	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.94										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5448										4537	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5448										4537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	331	193	0	0	0	0	0	0	121	578	0	
RTOR Reduction (vph)	0	119	0	0	0	0	0	0	0	0	54	0	
Lane Group Flow (vph)	0	405	0	0	0	0	0	0	0	0	645	0	
Turn Type		NA								Perm	NA		
Protected Phases		4								6			
Permitted Phases										6			
Actuated Green, G (s)		23.0								29.0			
Effective Green, g (s)		23.0								29.0			
Actuated g/C Ratio		0.38								0.48			
Clearance Time (s)		4.0								4.0			
Vehicle Extension (s)		3.0								3.0			
Lane Grp Cap (vph)		2088								2192			
v/s Ratio Prot		c0.07											
v/s Ratio Perm										0.14			
v/c Ratio		0.19								0.29			
Uniform Delay, d1		12.3								9.3			
Progression Factor		0.53								1.00			
Incremental Delay, d2		0.2								0.3			
Delay (s)		6.6								9.7			
Level of Service		A								A			
Approach Delay (s)		6.6				0.0		0.0		9.7			
Approach LOS		A				A		A		A			
Intersection Summary													
HCM 2000 Control Delay			8.4		HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio			0.25										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			38.3%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	87	0	66	2	0	0	139	226	0	0	201	60
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	87	0	66	2	0	0	139	226	0	0	201	60
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	622	735	130	670	765	113	261				226	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	622	735	130	670	765	113	261				226	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	74	100	93	99	100	100	89				100	
cM capacity (veh/h)	341	308	895	291	296	918	1300				1340	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	87	66	139	113	113	134	127					
Volume Left	87	0	139	0	0	0	0					
Volume Right	0	66	0	0	0	0	60					
cSH	341	895	1300	1700	1700	1700	1700					
Volume to Capacity	0.26	0.07	0.11	0.07	0.07	0.08	0.07					
Queue Length 95th (ft)	25	6	9	0	0	0	0					
Control Delay (s)	19.2	9.3	8.1	0.0	0.0	0.0	0.0					
Lane LOS	C	A	A									
Approach Delay (s)	14.9			3.1	0.0							
Approach LOS	B											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	31	65	58	269	232	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.91		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1666		1770	1863	1863	1583
Flt Permitted	0.98		0.61	1.00	1.00	1.00
Satd. Flow (perm)	1666		1144	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	31	65	58	269	232	38
RTOR Reduction (vph)	58	0	0	0	0	9
Lane Group Flow (vph)	38	0	58	269	232	29
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	5.8		41.5	41.5	41.5	41.5
Effective Green, g (s)	5.8		41.5	41.5	41.5	41.5
Actuated g/C Ratio	0.10		0.75	0.75	0.75	0.75
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174		858	1398	1398	1187
v/s Ratio Prot	c0.02			c0.14	0.12	
v/s Ratio Perm			0.05			0.02
v/c Ratio	0.22		0.07	0.19	0.17	0.02
Uniform Delay, d1	22.7		1.8	2.0	2.0	1.8
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6		0.2	0.3	0.3	0.0
Delay (s)	23.3		2.0	2.3	2.2	1.8
Level of Service	C		A	A	A	A
Approach Delay (s)	23.3			2.3	2.2	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			5.1	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.20			
Actuated Cycle Length (s)			55.3	Sum of lost time (s)		8.0
Intersection Capacity Utilization			31.3%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	555	126	0	0	0	0	228	70	2	98	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3415			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3415			1851	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	555	126	0	0	0	0	228	70	2	98	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	47	0	0	0	0
Lane Group Flow (vph)	0	850	0	0	0	0	0	251	0	0	100	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1138			617	
v/s Ratio Prot		c0.17						c0.07				
v/s Ratio Perm											0.05	
v/c Ratio		0.35						0.22			0.16	
Uniform Delay, d1		7.1						10.8			10.6	
Progression Factor		1.00						1.00			1.16	
Incremental Delay, d2		0.4						0.4			0.6	
Delay (s)		7.5						11.2			12.8	
Level of Service		A						B			B	
Approach Delay (s)		7.5			0.0			11.2			12.8	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		8.8						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.30										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		33.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	81	66	567	116	358	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.90	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					2724	1297		3147				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					2724	1297		3147				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	81	66	567	116	358	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	138	138	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	293	145	0	474	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1331	634		1049				
v/s Ratio Prot					0.11			c0.15				
v/s Ratio Perm						c0.11						
v/c Ratio					0.22	0.23		0.45				
Uniform Delay, d1					6.6	6.6		11.8				
Progression Factor					1.00	1.00		0.87				
Incremental Delay, d2					0.4	0.8		1.4				
Delay (s)					7.0	7.5		11.6				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.2			11.6			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			8.9				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			47.4%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	324	0	0	0	0	0	834	74	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5708						4521				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5708						4521				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	324	0	0	0	0	0	834	74	0	0	0
RTOR Reduction (vph)	0	37	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	371	0	0	0	0	0	891	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2568						1808				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.07										
v/c Ratio		0.14						0.49				
Uniform Delay, d1		9.7						13.5				
Progression Factor		1.18						1.00				
Incremental Delay, d2		0.1						1.0				
Delay (s)		11.6						14.4				
Level of Service		B						B				
Approach Delay (s)		11.6			0.0			14.4			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		66.8%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	221	4	4	238	190	7	2	2	267	4	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	221	4	4	238	190	7	2	2	267	4	103
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	246	242	190	11	374							
Volume Left (vph)	21	4	0	7	267							
Volume Right (vph)	4	0	190	2	103							
Hadj (s)	0.04	0.04	-0.67	0.05	0.01							
Departure Headway (s)	5.8	6.1	5.4	6.5	5.6							
Degree Utilization, x	0.40	0.41	0.28	0.02	0.58							
Capacity (veh/h)	580	563	636	456	608							
Control Delay (s)	12.7	12.1	9.3	9.6	16.3							
Approach Delay (s)	12.7	10.8		9.6	16.3							
Approach LOS	B	B		A	C							
Intersection Summary												
Delay			13.2									
Level of Service			B									
Intersection Capacity Utilization			62.0%	ICU Level of Service					B			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	197	69	23	202	64	75	831	36	40	422	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	214	75	25	220	70	82	903	39	43	459	255
RTOR Reduction (vph)	0	0	52	0	33	0	0	2	0	0	0	215
Lane Group Flow (vph)	299	214	23	25	257	0	82	940	0	43	459	40
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Effective Green, g (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Actuated g/C Ratio	0.16	0.30	0.30	0.04	0.18		0.10	0.38		0.06	0.35	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	544	1075	481	64	620		170	1340		108	1224	251
v/s Ratio Prot	c0.09	0.06		0.01	c0.08		c0.05	c0.27		0.02	0.13	0.03
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.20	0.05	0.39	0.41		0.48	0.70		0.40	0.38	0.16
Uniform Delay, d1	28.6	19.0	18.1	34.7	26.7		31.6	19.3		33.3	18.1	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	3.9	0.5		2.2	3.1		2.4	0.9	0.3
Delay (s)	29.7	19.1	18.2	38.6	27.1		33.7	22.3		35.7	19.0	27.1
Level of Service	C	B	B	D	C		C	C		D	B	C
Approach Delay (s)		24.4			28.0			23.2			22.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			23.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			73.7			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			56.3%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	173	76	33	171	82	107	787	42	75	303	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	188	83	36	186	89	116	855	46	82	329	37
RTOR Reduction (vph)	0	50	0	0	62	0	0	0	28	0	0	23
Lane Group Flow (vph)	101	221	0	36	213	0	116	855	18	82	329	14
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Effective Green, g (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Actuated g/C Ratio	0.11	0.24		0.04	0.17		0.09	0.39	0.39	0.08	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	803		77	571		312	1394	623	280	1361	609
v/s Ratio Prot	c0.06	0.07		0.02	c0.06		c0.03	c0.24		0.02	0.09	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.51	0.27		0.47	0.37		0.37	0.61	0.03	0.29	0.24	0.02
Uniform Delay, d1	27.6	20.5		30.8	24.3		28.2	16.0	12.3	28.5	13.8	12.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.2		4.4	0.4		0.7	2.0	0.1	0.6	0.4	0.1
Delay (s)	29.8	20.7		35.2	24.7		29.0	18.0	12.3	29.1	14.2	12.7
Level of Service	C	C		D	C		C	B	B	C	B	B
Approach Delay (s)		23.2			25.9			19.0			16.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			66.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			50.9%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	269	14	6	120	29	33	75	17	41	18	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	52	269	14	6	120	29	33	75	17	41	18	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	149			283			498	541	142	440	534	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	149			283			498	541	142	440	534	74
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			100			92	82	98	90	96	96
cM capacity (veh/h)	1430			1276			411	428	880	412	433	972
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	186	148	66	89	125	41	12	43				
Volume Left	52	0	6	0	33	41	0	0				
Volume Right	0	14	0	29	17	0	0	37				
cSH	1430	1700	1276	1700	455	412	433	828				
Volume to Capacity	0.04	0.09	0.00	0.05	0.27	0.10	0.03	0.05				
Queue Length 95th (ft)	3	0	0	0	28	8	2	4				
Control Delay (s)	2.3	0.0	0.7	0.0	15.9	14.7	13.6	9.6				
Lane LOS	A		A		C	B	B	A				
Approach Delay (s)	1.3		0.3		15.9	12.3						
Approach LOS					C	B						
Intersection Summary												
Average Delay			5.1									
Intersection Capacity Utilization			37.3%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	713	20	0	0	0	0	125	17	103	72	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		1.00						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5062						3476		1770	5085	
Flt Permitted		1.00						1.00		0.66	1.00	
Satd. Flow (perm)		5062						3476		1233	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	713	20	0	0	0	0	125	17	103	72	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	739	0	0	0	0	0	130	0	103	72	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		60.5						19.5		19.5	19.5	
Effective Green, g (s)		60.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.67						0.22		0.22	0.22	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3402						753		267	1101	
v/s Ratio Prot								0.04			0.01	
v/s Ratio Perm		0.15								c0.08		
v/c Ratio		0.22						0.17		0.39	0.07	
Uniform Delay, d1		5.7						28.7		30.1	28.0	
Progression Factor		1.00						1.00		0.86	0.85	
Incremental Delay, d2		0.1						0.5		4.2	0.1	
Delay (s)		5.8						29.2		30.2	23.9	
Level of Service		A						C		C	C	
Approach Delay (s)		5.8			0.0			29.2			27.6	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay		12.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.26										
Actuated Cycle Length (s)		90.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		36.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	21	145	253	12	23	109	0	0	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3517	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.66	1.00			1.00
Satd. Flow (perm)					3517	1583		1233	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	21	145	253	12	23	109	0	0	142
RTOR Reduction (vph)	0	0	0	0	0	223	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	166	30	0	35	109	0	0	142
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					10.5	10.5		70.5	70.5			70.5
Effective Green, g (s)					10.5	10.5		70.5	70.5			70.5
Actuated g/C Ratio					0.12	0.12		0.78	0.78			0.78
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					410	184		965	1459			2772
v/s Ratio Prot									c0.06			0.04
v/s Ratio Perm					0.05	0.02		0.03				
v/c Ratio					0.40	0.16		0.04	0.07			0.05
Uniform Delay, d1					36.9	35.8		2.2	2.2			2.2
Progression Factor					0.98	1.75		0.19	0.33			1.00
Incremental Delay, d2					0.7	0.4		0.1	0.1			0.0
Delay (s)					36.8	63.1		0.5	0.8			2.2
Level of Service					D	E		A	A			A
Approach Delay (s)		0.0			52.6				0.7			2.2
Approach LOS		A			D				A			A
Intersection Summary												
HCM 2000 Control Delay			30.5		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.12									
Actuated Cycle Length (s)			90.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			36.2%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	34
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	34
RTOR Reduction (vph)	7
Lane Group Flow (vph)	27
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	70.5
Effective Green, g (s)	70.5
Actuated g/C Ratio	0.78
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1240
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.02
Uniform Delay, d1	2.1
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	2.2
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	705	57	27	325	35	110	204	36	53	86	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5028		1770	5011		1770	1821		1770	3539	1583
Satd. Flow (perm)	985	5028		596	5011		1301	1821		1043	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	705	57	27	325	35	110	204	36	53	86	60
RTOR Reduction (vph)	0	11	0	0	15	0	0	7	0	0	0	34
Lane Group Flow (vph)	94	751	0	27	345	0	110	233	0	53	86	26
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Effective Green, g (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	451	2306		273	2299		558	781		447	1519	679
v/s Ratio Prot		c0.15			0.07			c0.13			0.02	
v/s Ratio Perm	0.10			0.05			0.08			0.05		0.02
v/c Ratio	0.21	0.33		0.10	0.15		0.20	0.30		0.12	0.06	0.04
Uniform Delay, d1	13.8	14.6		13.0	13.4		15.1	15.9		14.6	14.2	14.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.4		0.7	0.1		0.8	1.0		0.1	0.0	0.0
Delay (s)	14.8	15.0		13.8	13.5		15.9	16.8		14.7	14.2	14.1
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		15.0			13.5			16.5			14.3	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.9			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		85.0			Sum of lost time (s)			9.5				
Intersection Capacity Utilization		50.3%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

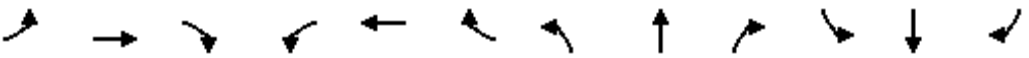
HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	158	500	1090	35	61	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5415	4555		2984	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5415	4555		2984	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	500	1090	35	61	33
RTOR Reduction (vph)	90	65	3	0	0	0
Lane Group Flow (vph)	36	467	1122	0	94	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	24.0	24.0	29.2		16.8	
Effective Green, g (s)	24.0	24.0	29.2		16.8	
Actuated g/C Ratio	0.28	0.28	0.34		0.20	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	364	1528	1564		589	
v/s Ratio Prot	0.03	c0.09	c0.25		c0.03	
v/s Ratio Perm						
v/c Ratio	0.10	0.31	0.72		0.16	
Uniform Delay, d1	22.5	24.0	24.3		28.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.5	2.9		0.1	
Delay (s)	23.0	24.5	27.2		28.4	
Level of Service	C	C	C		C	
Approach Delay (s)		24.2	27.2		28.4	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			26.2		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.44			
Actuated Cycle Length (s)			85.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			75.1%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑	↑	↑↑↑				
Volume (vph)	0	0	0	0	216	696	29	1412	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2769	1297	1290	5431				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2769	1297	1290	5431				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	216	696	29	1412	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	16	12	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	562	332	14	1406	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					31.3	31.3	44.2	44.2				
Effective Green, g (s)					31.3	31.3	44.2	44.2				
Actuated g/C Ratio					0.37	0.37	0.52	0.52				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1019	477	670	2824				
v/s Ratio Prot					0.20							
v/s Ratio Perm						c0.26	0.01	0.26				
v/c Ratio					0.55	0.70	0.02	0.50				
Uniform Delay, d1					21.3	22.8	9.9	13.2				
Progression Factor					1.00	1.00	0.04	0.25				
Incremental Delay, d2					0.6	4.4	0.0	0.5				
Delay (s)					21.9	27.2	0.4	3.8				
Level of Service					C	C	A	A				
Approach Delay (s)		0.0			23.9			3.8			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.6									
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			85.0									
Intersection Capacity Utilization			61.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	19	66	11	13	39	72	6	34	17	70	49	19
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	19	66	11	13	39	72	6	34	17	70	49	19
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	96	124	57	95	44							
Volume Left (vph)	19	13	6	70	0							
Volume Right (vph)	11	72	17	0	19							
Hadj (s)	0.00	-0.29	-0.12	0.40	-0.27							
Departure Headway (s)	4.5	4.2	4.6	5.5	4.8							
Degree Utilization, x	0.12	0.14	0.07	0.14	0.06							
Capacity (veh/h)	757	806	742	627	715							
Control Delay (s)	8.2	7.9	7.9	8.2	6.9							
Approach Delay (s)	8.2	7.9	7.9	7.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.9									
Level of Service			A									
Intersection Capacity Utilization			26.0%			ICU Level of Service				A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	31	16	17	26	64	18	147	49	53	202	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	40	31	16	17	26	64	18	147	49	53	202	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	511	556	118	446	548	98	235			196		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	511	556	118	446	548	98	235			196		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	93	98	96	94	93	99			96		
cM capacity (veh/h)	380	415	912	441	419	939	1329			1374		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	87	107	92	122	154	134						
Volume Left	40	17	18	0	53	0						
Volume Right	16	64	0	49	0	33						
cSH	441	634	1329	1700	1374	1700						
Volume to Capacity	0.20	0.17	0.01	0.07	0.04	0.08						
Queue Length 95th (ft)	18	15	1	0	3	0						
Control Delay (s)	15.2	11.8	1.6	0.0	2.9	0.0						
Lane LOS	C	B	A		A							
Approach Delay (s)	15.2	11.8	0.7		1.5							
Approach LOS	C	B										
Intersection Summary												
Average Delay			4.6									
Intersection Capacity Utilization			35.5%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	118	28	10	102	99	15	181	12	39	176	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.97			0.94			0.99			0.97	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1809			1741			3496			3396	
Flt Permitted	0.62	1.00			0.99			0.93			0.90	
Satd. Flow (perm)	1158	1809			1724			3263			3063	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	118	28	10	102	99	15	181	12	39	176	62
RTOR Reduction (vph)	0	11	0	0	42	0	0	6	0	0	34	0
Lane Group Flow (vph)	106	135	0	0	169	0	0	202	0	0	243	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	494	771			735			1479			1388	
v/s Ratio Prot		0.07										
v/s Ratio Perm	0.09				0.10			0.06			0.08	
v/c Ratio	0.21	0.17			0.23			0.14			0.18	
Uniform Delay, d1	13.6	13.3			13.7			11.9			12.2	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.5			0.7			0.2			0.3	
Delay (s)	14.6	13.8			14.4			12.1			12.4	
Level of Service	B	B			B			B			B	
Approach Delay (s)		14.1			14.4			12.1			12.4	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.3									
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			48.7%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1007	284	73	0	0	0	0	269	294	591	254	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3285	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3285	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1007	284	73	0	0	0	0	269	294	591	254	0
RTOR Reduction (vph)	0	0	48	0	0	0	0	0	166	0	0	0
Lane Group Flow (vph)	503	788	25	0	0	0	0	269	128	591	254	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	31.0	31.0	31.0					26.0	26.0	19.5	49.0	
Effective Green, g (s)	31.0	31.0	31.0					26.0	26.0	19.5	49.0	
Actuated g/C Ratio	0.34	0.34	0.34					0.29	0.29	0.22	0.54	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	554	1131	545					1022	457	743	1014	
v/s Ratio Prot	c0.31	0.24	0.02					0.08	c0.08	c0.17	0.14	
v/s Ratio Perm												
v/c Ratio	0.91	0.87dl	0.05					0.26	0.28	0.80	0.25	
Uniform Delay, d1	28.1	25.4	19.7					24.6	24.8	33.4	10.8	
Progression Factor	0.87	0.87	0.75					1.00	1.00	0.76	1.03	
Incremental Delay, d2	18.5	1.9	0.0					0.6	1.5	5.5	0.1	
Delay (s)	42.9	23.9	14.7					25.3	26.3	31.0	11.2	
Level of Service	D	C	B					C	C	C	B	
Approach Delay (s)		30.4			0.0			25.8			25.0	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			27.8									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			90.0							13.5		
Intersection Capacity Utilization			105.3%									ICU Level of Service G
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	205	128	617	64	248	0	0	715	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4546	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4546	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	205	128	617	64	248	0	0	715	33
RTOR Reduction (vph)	0	0	0	0	0	379	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	205	128	238	64	248	0	0	744	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				29.2	29.2	29.2	15.2	52.8			33.6	
Effective Green, g (s)				29.2	29.2	29.2	15.2	52.8			33.6	
Actuated g/C Ratio				0.32	0.32	0.32	0.17	0.59			0.37	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				516	1033	462	269	1868			1697	
v/s Ratio Prot				0.13	0.04	c0.17	c0.04	0.08			c0.16	
v/s Ratio Perm												
v/c Ratio				0.40	0.12	0.52	0.24	0.13			0.44	
Uniform Delay, d1				23.6	21.4	24.7	32.4	8.3			21.1	
Progression Factor				1.00	1.00	1.00	0.70	0.95			1.00	
Incremental Delay, d2				0.5	0.1	1.0	0.3	0.1			0.8	
Delay (s)				24.1	21.5	25.6	22.9	8.0			22.0	
Level of Service				C	C	C	C	A			C	
Approach Delay (s)		0.0			24.7			11.1			22.0	
Approach LOS		A			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.6									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			90.0									Sum of lost time (s) 12.0
Intersection Capacity Utilization			105.3%									ICU Level of Service G
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	486	182	0	0	0	0	453	68	99	697	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.97						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		5525						3123		1593	3185	
Flt Permitted		0.99						1.00		0.40	1.00	
Satd. Flow (perm)		5525						3123		677	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	486	182	0	0	0	0	453	68	99	697	0
RTOR Reduction (vph)	0	90	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	697	0	0	0	0	0	502	0	99	697	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.0						21.0		29.0	29.0	
Effective Green, g (s)		23.0						21.0		29.0	29.0	
Actuated g/C Ratio		0.38						0.35		0.48	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		2117						1093		388	1539	
v/s Ratio Prot		c0.13						0.16		0.02	c0.22	
v/s Ratio Perm										0.11		
v/c Ratio		0.33						0.46		0.26	0.45	
Uniform Delay, d1		13.1						15.1		11.1	10.3	
Progression Factor		1.00						1.00		0.75	0.78	
Incremental Delay, d2		0.1						1.4		0.3	0.9	
Delay (s)		13.1						16.5		8.6	8.9	
Level of Service		B						B		A	A	
Approach Delay (s)		13.1			0.0			16.5			8.9	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		54.0%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	152	511	94	123	454	0	0	594	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4447		1593	3185			4493	
Flt Permitted					0.99		0.34	1.00			1.00	
Satd. Flow (perm)					4447		563	3185			4493	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	152	511	94	123	454	0	0	594	83
RTOR Reduction (vph)	0	0	0	0	31	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	0	0	0	726	0	123	454	0	0	647	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1927		312	1380			1347	
v/s Ratio Prot					c0.16		0.03	c0.14			c0.14	
v/s Ratio Perm							0.14					
v/c Ratio					0.38		0.39	0.33			0.48	
Uniform Delay, d1					11.5		13.9	11.2			17.2	
Progression Factor					1.00		0.44	0.49			1.51	
Incremental Delay, d2					0.6		3.4	0.6			1.0	
Delay (s)					12.1		9.5	6.1			26.8	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			12.1			6.8			26.8	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.5				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			54.0%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	319	100	3	379	114	2	476	23	0	778	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3071			3075			3163			3131	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		2912			2930			3012			3131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	319	100	3	379	114	2	476	23	0	778	100
RTOR Reduction (vph)	0	49	0	0	46	0	0	6	0	0	17	0
Lane Group Flow (vph)	0	376	0	0	450	0	0	495	0	0	861	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		23.5			23.5			25.5			25.5	
Effective Green, g (s)		23.5			23.5			25.5			25.5	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1140			1147			1280			1330	
v/s Ratio Prot											c0.28	
v/s Ratio Perm		0.13			c0.15			0.16				
v/c Ratio		0.33			0.39			0.39			0.65	
Uniform Delay, d1		12.8			13.1			11.9			13.7	
Progression Factor		1.00			1.00			1.39			1.00	
Incremental Delay, d2		0.8			1.0			0.8			2.4	
Delay (s)		13.5			14.1			17.3			16.1	
Level of Service		B			B			B			B	
Approach Delay (s)		13.5			14.1			17.3			16.1	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		54.8%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	87	39	18	83	0	0	0	0	10	24	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	10	24	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			258	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			258	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	96	98
cM capacity (veh/h)	1514			1460			654	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	22	33								
Volume Left	0	18	10	0								
Volume Right	39	0	0	21								
cSH	1700	1460	681	825								
Volume to Capacity	0.07	0.01	0.03	0.04								
Queue Length 95th (ft)	0	1	3	3								
Control Delay (s)	0.0	1.4	10.5	9.5								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	9.9									
Approach LOS			A									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	189	12	19	188	0	0	0	0	14	21	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	189	12	19	188	0	0	0	0	14	21	86
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	188			201			518	421	195	421	427	188
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	188			201			518	421	195	421	427	188
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	97	96	90
cM capacity (veh/h)	1386			1371			404	517	846	537	513	854
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	201	207	24	96								
Volume Left	0	19	14	0								
Volume Right	12	0	0	86								
cSH	1700	1371	526	796								
Volume to Capacity	0.12	0.01	0.05	0.12								
Queue Length 95th (ft)	0	1	4	10								
Control Delay (s)	0.0	0.8	12.2	10.1								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	0.8	10.6									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			35.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	32	115	72	40	27	27
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	32	115	72	40	27	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		104	64	179	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		104	64	179	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	98		91	95	96	98
cM capacity (veh/h)	1623		816	810	701	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	32	115	112	27	27	
Volume Left	32	0	72	0	0	
Volume Right	0	115	0	0	27	
cSH	1623	1700	814	701	1085	
Volume to Capacity	0.02	0.07	0.14	0.04	0.02	
Queue Length 95th (ft)	2	0	12	3	2	
Control Delay (s)	7.3	0.0	10.1	10.3	8.4	
Lane LOS	A		B	B	A	
Approach Delay (s)	1.6		10.1	9.4		
Approach LOS			B	A		
Intersection Summary						
Average Delay			6.0			
Intersection Capacity Utilization			22.8%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	394	0	0	0	0	0	502	868	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4536						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4536						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	394	0	0	0	0	0	502	868	0	0	0
RTOR Reduction (vph)	0	37	0	0	0	0	0	0	340	0	0	0
Lane Group Flow (vph)	0	443	0	0	0	0	0	502	528	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		34.0						16.0	34.0			
Effective Green, g (s)		34.0						16.0	34.0			
Actuated g/C Ratio		0.57						0.27	0.57			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2570						1220	1421			
v/s Ratio Prot								0.11				
v/s Ratio Perm		0.10							c0.21			
v/c Ratio		0.17						0.41	0.37			
Uniform Delay, d1		6.2						18.1	7.1			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.2	0.2			
Delay (s)		6.4						18.3	7.3			
Level of Service		A						B	A			
Approach Delay (s)		6.4			0.0			11.3			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		10.1			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.32										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			10.0				
Intersection Capacity Utilization		80.2%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	232	484	287	0	0	0	0	416	28	106	82	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.96						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4811						1847		1770	1863	
Flt Permitted		0.99						1.00		0.34	1.00	
Satd. Flow (perm)		4811						1847		642	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	232	484	287	0	0	0	0	416	28	106	82	0
RTOR Reduction (vph)	0	96	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	907	0	0	0	0	0	441	0	106	82	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2213						726		252	732	
v/s Ratio Prot								c0.24			0.04	
v/s Ratio Perm		0.19								0.17		
v/c Ratio		0.41						0.61		0.42	0.11	
Uniform Delay, d1		13.5						18.1		16.5	14.4	
Progression Factor		1.00						1.00		0.68	0.72	
Incremental Delay, d2		0.6						3.8		5.1	0.3	
Delay (s)		14.0						21.9		16.3	10.7	
Level of Service		B						C		B	B	
Approach Delay (s)		14.0			0.0			21.9			13.9	
Approach LOS		B			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		16.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		81.0%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	9	322	44	309	368	0	0	176	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1083	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	322	44	309	368	0	0	176	425
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	322	11	309	368	0	0	176	425
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	642	994			994	1425
v/s Ratio Prot				0.01	c0.19			0.22			0.10	
v/s Ratio Perm						0.01	c0.29					0.30
v/c Ratio				0.02	0.74	0.03	0.48	0.37			0.18	0.30
Uniform Delay, d1				20.7	25.4	20.7	8.7	7.9			6.9	0.0
Progression Factor				1.00	1.00	1.00	0.67	0.70			1.00	1.00
Incremental Delay, d2				0.1	10.8	0.2	2.2	0.9			0.4	0.5
Delay (s)				20.7	36.2	20.9	8.0	6.5			7.3	0.5
Level of Service				C	D	C	A	A			A	A
Approach Delay (s)		0.0			34.0			7.2			2.5	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.6									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 11.0
Intersection Capacity Utilization			81.0%									ICU Level of Service D
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	32	839	375	0	0	0	0	234	108	30	281	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	4.0					4.0			4.0		
Lane Util. Factor		0.86	0.86					1.00			1.00		
Frt		0.98	0.85					0.96			1.00		
Flt Protected		1.00	1.00					1.00			1.00		
Satd. Flow (prot)		4253	1226					1605			1668		
Flt Permitted		1.00	1.00					1.00			0.95		
Satd. Flow (perm)		4253	1226					1605			1592		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	32	839	375	0	0	0	0	234	108	30	281	0	
RTOR Reduction (vph)	0	21	0	0	0	0	0	28	0	0	0	0	
Lane Group Flow (vph)	0	948	277	0	0	0	0	314	0	0	311	0	
Turn Type	Split	NA	Free					NA		Perm	NA		
Protected Phases	4	4						2			6		
Permitted Phases			Free							6			
Actuated Green, G (s)		27.0	60.0					24.0			24.0		
Effective Green, g (s)		27.0	60.0					24.0			24.0		
Actuated g/C Ratio		0.45	1.00					0.40			0.40		
Clearance Time (s)		5.0						4.0			4.0		
Vehicle Extension (s)		3.0						3.0			3.0		
Lane Grp Cap (vph)		1913	1226					642			636		
v/s Ratio Prot		c0.22						c0.20					
v/s Ratio Perm			0.23								0.20		
v/c Ratio		0.50	0.23					0.49			0.49		
Uniform Delay, d1		11.7	0.0					13.4			13.4		
Progression Factor		1.00	1.00					1.00			1.00		
Incremental Delay, d2		0.9	0.4					2.7			2.7		
Delay (s)		12.6	0.4					16.1			16.1		
Level of Service		B	A					B			B		
Approach Delay (s)		9.9			0.0			16.1			16.1		
Approach LOS		A			A			B			B		
Intersection Summary													
HCM 2000 Control Delay			12.0									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.49										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	9.0
Intersection Capacity Utilization			71.9%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	539	26	0	0	0	0	0	0	747	71	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3253	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3253	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	539	26	0	0	0	0	0	0	747	71	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	74	74	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	299	371	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1555	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.19	0.11	
v/c Ratio		0.32								0.39	0.24	
Uniform Delay, d1		11.0								7.7	7.1	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								1.5	0.4	
Delay (s)		11.5								9.2	7.4	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			8.2	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.5			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		33.6%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	15	173	0	0	0	0	0	854	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					4559						4455	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					4559						4455	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	15	173	0	0	0	0	0	854	185
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	76	0
Lane Group Flow (vph)	0	0	0	0	172	0	0	0	0	0	963	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1519						2178	
v/s Ratio Prot					c0.04						c0.22	
v/s Ratio Perm												
v/c Ratio					0.11						0.44	
Uniform Delay, d1					10.4						7.5	
Progression Factor					0.98						1.00	
Incremental Delay, d2					0.1						0.7	
Delay (s)					10.3						8.2	
Level of Service					B						A	
Approach Delay (s)		0.0			10.3			0.0			8.2	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.31									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			33.6%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	777	254	0	0	0	0	0	0	242	668	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.96										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5554										4517	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5554										4517	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	777	254	0	0	0	0	0	0	242	668	0	
RTOR Reduction (vph)	0	98	0	0	0	0	0	0	0	0	44	0	
Lane Group Flow (vph)	0	933	0	0	0	0	0	0	0	0	866	0	
Turn Type		NA									Perm	NA	
Protected Phases		4									6		
Permitted Phases										6			
Actuated Green, G (s)		24.0									28.0		
Effective Green, g (s)		24.0									28.0		
Actuated g/C Ratio		0.40									0.47		
Clearance Time (s)		4.0									4.0		
Vehicle Extension (s)		3.0									3.0		
Lane Grp Cap (vph)		2221									2107		
v/s Ratio Prot		0.17											
v/s Ratio Perm											0.19		
v/c Ratio		0.42									0.41		
Uniform Delay, d1		13.0									10.6		
Progression Factor		0.31									1.00		
Incremental Delay, d2		0.5									0.6		
Delay (s)		4.5									11.2		
Level of Service		A									B		
Approach Delay (s)		4.5				0.0			0.0			11.2	
Approach LOS		A				A			A			B	
Intersection Summary													
HCM 2000 Control Delay		7.6			HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio		0.42											
Actuated Cycle Length (s)		60.0			Sum of lost time (s)					8.0			
Intersection Capacity Utilization		43.7%			ICU Level of Service					A			
Analysis Period (min)		15											
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	68	0	96	5	0	1	77	239	0	0	226	41
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	68	0	96	5	0	1	77	239	0	0	226	41
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	521	640	134	602	660	120	267				239	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	521	640	134	602	660	120	267				239	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	84	100	89	98	100	100	94				100	
cM capacity (veh/h)	418	369	891	327	359	910	1294				1325	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	68	96	77	120	120	151	116					
Volume Left	68	0	77	0	0	0	0					
Volume Right	0	96	0	0	0	0	41					
cSH	418	891	1294	1700	1700	1700	1700					
Volume to Capacity	0.16	0.11	0.06	0.07	0.07	0.09	0.07					
Queue Length 95th (ft)	14	9	5	0	0	0	0					
Control Delay (s)	15.3	9.5	8.0	0.0	0.0	0.0	0.0					
Lane LOS	C	A	A									
Approach Delay (s)	11.9			1.9	0.0							
Approach LOS	B											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	77	49	263	175	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1696		1770	1863	1863	1583
Flt Permitted	0.98		0.65	1.00	1.00	1.00
Satd. Flow (perm)	1696		1205	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	79	77	49	263	175	39
RTOR Reduction (vph)	67	0	0	0	0	11
Lane Group Flow (vph)	89	0	49	263	175	28
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	7.0		37.4	37.4	37.4	37.4
Effective Green, g (s)	7.0		37.4	37.4	37.4	37.4
Actuated g/C Ratio	0.13		0.71	0.71	0.71	0.71
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226		860	1329	1329	1129
v/s Ratio Prot	c0.05			c0.14	0.09	
v/s Ratio Perm			0.04			0.02
v/c Ratio	0.40		0.06	0.20	0.13	0.02
Uniform Delay, d1	20.8		2.2	2.5	2.4	2.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1		0.1	0.3	0.2	0.0
Delay (s)	21.9		2.4	2.8	2.6	2.2
Level of Service	C		A	A	A	A
Approach Delay (s)	21.9			2.8	2.5	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			7.1	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.23			
Actuated Cycle Length (s)			52.4	Sum of lost time (s)		8.0
Intersection Capacity Utilization			31.6%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	854	118	0	0	0	0	395	73	4	88	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.98			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4965						3456			1859	
Flt Permitted		0.99						1.00			0.98	
Satd. Flow (perm)		4965						3456			1824	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	854	118	0	0	0	0	395	73	4	88	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	1149	0	0	0	0	0	434	0	0	92	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1152			608	
v/s Ratio Prot		c0.23						c0.13				
v/s Ratio Perm											0.05	
v/c Ratio		0.47						0.38			0.15	
Uniform Delay, d1		7.6						11.4			10.5	
Progression Factor		1.00						1.00			1.18	
Incremental Delay, d2		0.7						0.9			0.5	
Delay (s)		8.3						12.4			13.0	
Level of Service		A						B			B	
Approach Delay (s)		8.3			0.0			12.4			13.0	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		9.7						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		43.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	64	80	478	134	481	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.91	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					2743	1297		3151				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					2743	1297		3151				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	64	80	478	134	481	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	84	84	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	299	155	0	615	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1341	634		1050				
v/s Ratio Prot					0.11			c0.20				
v/s Ratio Perm						c0.12						
v/c Ratio					0.22	0.24		0.59				
Uniform Delay, d1					6.6	6.7		12.4				
Progression Factor					1.00	1.00		0.65				
Incremental Delay, d2					0.4	0.9		2.2				
Delay (s)					7.0	7.6		10.3				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.2			10.3			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			8.8		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			47.7%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	758	0	0	0	0	0	876	139	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5728						4483				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5728						4483				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	758	0	0	0	0	0	876	139	0	0	0
RTOR Reduction (vph)	0	32	0	0	0	0	0	36	0	0	0	0
Lane Group Flow (vph)	0	844	0	0	0	0	0	979	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2577						1793				
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.15										
v/c Ratio		0.33						0.55				
Uniform Delay, d1		10.6						13.8				
Progression Factor		0.69						1.00				
Incremental Delay, d2		0.3						1.2				
Delay (s)		7.7						15.0				
Level of Service		A						B				
Approach Delay (s)		7.7			0.0			15.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.43										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		69.3%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	44	312	5	1	195	309	9	1	3	340	2	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	44	312	5	1	195	309	9	1	3	340	2	46
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	361	196	309	13	388							
Volume Left (vph)	44	1	0	9	340							
Volume Right (vph)	5	0	309	3	46							
Hadj (s)	0.05	0.04	-0.67	0.03	0.14							
Departure Headway (s)	6.2	6.5	5.8	7.4	6.3							
Degree Utilization, x	0.62	0.36	0.50	0.03	0.68							
Capacity (veh/h)	557	528	594	389	388							
Control Delay (s)	18.8	11.9	13.3	10.6	21.4							
Approach Delay (s)	18.8	12.8		10.6	21.4							
Approach LOS	C	B		B	C							
Intersection Summary												
Delay			17.1									
Level of Service			C									
Intersection Capacity Utilization			66.7%	ICU Level of Service					C			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	160	44	57	200	39	31	487	45	87	747	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	174	48	62	217	42	34	529	49	95	812	175
RTOR Reduction (vph)	0	0	37	0	17	0	0	6	0	0	0	152
Lane Group Flow (vph)	195	174	11	62	242	0	34	572	0	95	812	23
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Effective Green, g (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Actuated g/C Ratio	0.13	0.23	0.23	0.07	0.17		0.04	0.37		0.10	0.43	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	450	814	364	125	585		72	1288		185	1529	207
v/s Ratio Prot	c0.06	0.05		0.04	c0.07		0.02	0.16		c0.05	c0.23	0.01
v/s Ratio Perm			0.01									
v/c Ratio	0.43	0.21	0.03	0.50	0.41		0.47	0.44		0.51	0.53	0.11
Uniform Delay, d1	28.3	22.1	21.1	31.7	26.3		33.2	16.9		30.0	14.8	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	3.1	0.5		4.8	1.1		2.4	1.3	0.2
Delay (s)	29.0	22.2	21.2	34.8	26.7		38.0	18.0		32.4	16.1	27.3
Level of Service	C	C	C	C	C		D	B		C	B	C
Approach Delay (s)		25.3			28.3			19.1			19.4	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			21.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			70.8			Sum of lost time (s)				16.0		
Intersection Capacity Utilization			49.2%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	141	99	50	134	95	84	510	38	125	1092	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	153	108	54	146	103	91	554	41	136	1187	125
RTOR Reduction (vph)	0	87	0	0	88	0	0	0	25	0	0	62
Lane Group Flow (vph)	110	174	0	54	161	0	91	554	16	136	1187	63
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Effective Green, g (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Actuated g/C Ratio	0.12	0.19		0.07	0.15		0.09	0.39	0.39	0.10	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	635		125	481		296	1392	622	333	1430	640
v/s Ratio Prot	c0.06	c0.05		0.03	0.05		0.03	0.16		c0.04	c0.34	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.53	0.27		0.43	0.33		0.31	0.40	0.03	0.41	0.83	0.10
Uniform Delay, d1	26.9	22.4		28.8	24.9		27.8	14.1	12.0	27.5	17.3	12.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2		2.4	0.4		0.6	0.9	0.1	0.8	5.7	0.3
Delay (s)	29.5	22.6		31.2	25.3		28.4	15.0	12.1	28.3	23.0	12.3
Level of Service	C	C		C	C		C	B	B	C	C	B
Approach Delay (s)		24.6			26.4			16.6			22.6	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.8				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			64.8				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			59.2%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Residential Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	25	15	201	56	45	32	7	32	77	93
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	25	15	201	56	45	32	7	32	77	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	257			99			396	422	50	367	406	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	257			99			396	422	50	367	406	128
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			89	94	99	94	85	90
cM capacity (veh/h)	1305			1492			418	507	1008	522	518	898
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	62	116	156	84	32	51	119				
Volume Left	24	0	15	0	45	32	0	0				
Volume Right	0	25	0	56	7	0	0	93				
cSH	1305	1700	1492	1700	473	522	518	775				
Volume to Capacity	0.02	0.04	0.01	0.09	0.18	0.06	0.10	0.15				
Queue Length 95th (ft)	1	0	1	0	16	5	8	13				
Control Delay (s)	3.2	0.0	1.0	0.0	14.3	12.3	12.7	10.5				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.6		0.4		14.3	11.3						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.6									
Intersection Capacity Utilization			34.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	549	34	0	0	0	0	102	21	52	187	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5037						3449		1770	5085	
Flt Permitted		1.00						1.00		0.67	1.00	
Satd. Flow (perm)		5037						3449		1256	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	549	34	0	0	0	0	102	21	52	187	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	584	0	0	0	0	0	107	0	52	187	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		45.5						19.5		19.5	19.5	
Effective Green, g (s)		45.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.61						0.26		0.26	0.26	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3055						896		326	1322	
v/s Ratio Prot								0.03			0.04	
v/s Ratio Perm		0.12								c0.04		
v/c Ratio		0.19						0.12		0.16	0.14	
Uniform Delay, d1		6.6						21.2		21.4	21.3	
Progression Factor		1.00						1.02		0.60	0.60	
Incremental Delay, d2		0.1						0.3		1.0	0.2	
Delay (s)		6.7						21.9		13.8	13.1	
Level of Service		A						C		B	B	
Approach Delay (s)		6.7			0.0			21.9			13.3	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		10.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.18										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		30.5%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	101	270	260	9	25	90	0	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3492	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.67	1.00			1.00
Satd. Flow (perm)					3492	1583		1241	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	101	270	260	9	25	90	0	0	135
RTOR Reduction (vph)	0	0	0	0	0	209	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	371	51	0	34	90	0	0	135
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					14.8	14.8		51.2	51.2			51.2
Effective Green, g (s)					14.8	14.8		51.2	51.2			51.2
Actuated g/C Ratio					0.20	0.20		0.68	0.68			0.68
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					689	312		847	1271			2415
v/s Ratio Prot									c0.05			0.04
v/s Ratio Perm					0.11	0.03		0.03				
v/c Ratio					0.54	0.16		0.04	0.07			0.06
Uniform Delay, d1					27.0	25.0		3.9	4.0			3.9
Progression Factor					0.83	0.43		0.49	0.52			0.89
Incremental Delay, d2					0.8	0.2		0.1	0.1			0.0
Delay (s)					23.1	11.1		2.0	2.2			3.5
Level of Service					C	B		A	A			A
Approach Delay (s)		0.0			18.2				2.1			3.6
Approach LOS		A			B				A			A
Intersection Summary												
HCM 2000 Control Delay			13.2		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			30.5%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	45
RTOR Reduction (vph)	14
Lane Group Flow (vph)	31
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	51.2
Effective Green, g (s)	51.2
Actuated g/C Ratio	0.68
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1080
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.03
Uniform Delay, d1	3.9
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	3.9
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	268	34	42	581	36	158	151	17	40	81	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.98		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4999		1770	5041		1770	1834		1770	3539	1583
Satd. Flow (perm)	592	4999		1044	5041		1307	1834		1212	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	268	34	42	581	36	158	151	17	40	81	75
RTOR Reduction (vph)	0	27	0	0	13	0	0	3	0	0	0	25
Lane Group Flow (vph)	42	275	0	42	604	0	158	165	0	40	81	50
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	15.9	15.9		15.9	15.9		49.6	49.6		49.6	49.6	49.6
Effective Green, g (s)	15.9	15.9		15.9	15.9		49.6	49.6		49.6	49.6	49.6
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.66	0.66		0.66	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	125	1059		221	1068		864	1212		801	2340	1046
v/s Ratio Prot		0.06			c0.12			0.09			0.02	
v/s Ratio Perm	0.07			0.04			c0.12			0.03		0.03
v/c Ratio	0.34	0.26		0.19	0.57		0.18	0.14		0.05	0.03	0.05
Uniform Delay, d1	25.1	24.6		24.3	26.5		4.9	4.7		4.4	4.4	4.4
Progression Factor	1.00	1.00		1.00	1.00		0.62	0.61		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.1		0.4	0.7		0.5	0.2		0.1	0.0	0.1
Delay (s)	26.7	24.8		24.7	27.1		3.5	3.1		4.6	4.4	4.5
Level of Service	C	C		C	C		A	A		A	A	A
Approach Delay (s)		25.0			27.0			3.3			4.5	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		18.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.28										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)			9.5				
Intersection Capacity Utilization		43.5%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	139	772	412	27	79	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5427	4535		2959	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5427	4535		2959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	772	412	27	79	59
RTOR Reduction (vph)	65	34	6	0	0	0
Lane Group Flow (vph)	60	752	433	0	138	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	55.0	55.0	24.0		21.0	
Effective Green, g (s)	55.0	55.0	24.0		21.0	
Actuated g/C Ratio	0.48	0.48	0.21		0.18	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	616	2595	946		540	
v/s Ratio Prot	0.05	c0.14	c0.10		c0.05	
v/s Ratio Perm						
v/c Ratio	0.10	0.29	0.46		0.26	
Uniform Delay, d1	16.4	18.2	39.8		40.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.3	0.3	1.6		0.3	
Delay (s)	16.7	18.5	41.4		40.5	
Level of Service	B	B	D		D	
Approach Delay (s)		18.2	41.4		40.5	
Approach LOS		B	D		D	
Intersection Summary						
HCM 2000 Control Delay			27.1		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.32			
Actuated Cycle Length (s)			115.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			68.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	177	214	37	490	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2895	1297	1290	5430				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2895	1297	1290	5430				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	177	214	37	490	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	41	54	21	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	228	68	12	485	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					64.0	64.0	41.5	41.5				
Effective Green, g (s)					64.0	64.0	41.5	41.5				
Actuated g/C Ratio					0.56	0.56	0.36	0.36				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1611	721	465	1959				
v/s Ratio Prot					0.08							
v/s Ratio Perm						0.05	0.01	0.09				
v/c Ratio					0.14	0.09	0.03	0.25				
Uniform Delay, d1					12.3	11.9	23.7	25.8				
Progression Factor					1.00	1.00	1.91	1.19				
Incremental Delay, d2					0.2	0.3	0.1	0.3				
Delay (s)					12.5	12.2	45.3	31.0				
Level of Service					B	B	D	C				
Approach Delay (s)		0.0			12.4			31.9			0.0	
Approach LOS		A			B			C			A	
Intersection Summary												
HCM 2000 Control Delay			23.6									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			115.0									
Intersection Capacity Utilization			46.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	8	70	51	7	125	99	13	54	0	73	69	13							
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
Hourly flow rate (vph)	8	70	51	7	125	99	13	54	0	73	69	13							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	129	231	67	108	48														
Volume Left (vph)	8	7	13	73	0														
Volume Right (vph)	51	99	0	0	13														
Hadj (s)	-0.19	-0.22	0.07	0.37	-0.16														
Departure Headway (s)	4.6	4.4	5.2	5.8	5.3														
Degree Utilization, x	0.16	0.28	0.10	0.17	0.07														
Capacity (veh/h)	732	768	641	582	639														
Control Delay (s)	8.5	9.2	8.7	8.8	7.5														
Approach Delay (s)	8.5	9.2	8.7	8.4															
Approach LOS	A	A	A	A															
Intersection Summary																			
Delay			8.8																
Level of Service			A																
Intersection Capacity Utilization			32.1%	ICU Level of Service		A													
Analysis Period (min)			15																

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	4	4	9	29	34	4	150	8	32	175	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	4	4	9	29	34	4	150	8	32	175	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	378	412	95	320	416	79	190			158		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	378	412	95	320	416	79	190			158		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	98	94	96	100			98		
cM capacity (veh/h)	502	515	943	592	512	965	1381			1419		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	17	72	79	83	120	102						
Volume Left	9	9	4	0	32	0						
Volume Right	4	34	0	8	0	15						
cSH	568	673	1381	1700	1419	1700						
Volume to Capacity	0.03	0.11	0.00	0.05	0.02	0.06						
Queue Length 95th (ft)	2	9	0	0	2	0						
Control Delay (s)	11.5	11.0	0.4	0.0	2.2	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.5	11.0	0.2		1.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			24.9%			ICU Level of Service			A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	4	45	46	22	153	9	40	189	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.95			0.93			0.99			0.97	
Flt Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1763			1737			3492			3399	
Flt Permitted	0.70	1.00			0.99			0.91			0.90	
Satd. Flow (perm)	1295	1763			1730			3187			3079	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	4	45	46	22	153	9	40	189	65
RTOR Reduction (vph)	0	12	0	0	26	0	0	5	0	0	34	0
Lane Group Flow (vph)	34	47	0	0	69	0	0	179	0	0	260	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	552	752			738			1444			1395	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.03				c0.04			0.06			c0.08	
v/c Ratio	0.06	0.06			0.09			0.12			0.19	
Uniform Delay, d1	12.7	12.7			12.8			11.9			12.2	
Progression Factor	1.00	1.00			1.00			1.00			0.55	
Incremental Delay, d2	0.2	0.2			0.2			0.2			0.3	
Delay (s)	12.9	12.8			13.1			12.1			7.0	
Level of Service	B	B			B			B			A	
Approach Delay (s)		12.8			13.1			12.1			7.0	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.1									
HCM 2000 Volume to Capacity ratio			0.14									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			33.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	705	136	75	0	0	0	0	149	250	422	308	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	136	75	0	0	0	0	149	250	422	308	0
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	162	0	0	0
Lane Group Flow (vph)	352	489	21	0	0	0	0	149	88	422	308	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	20.6	20.6	20.6					26.5	26.5	14.4	44.4	
Effective Green, g (s)	20.6	20.6	20.6					26.5	26.5	14.4	44.4	
Actuated g/C Ratio	0.27	0.27	0.27					0.35	0.35	0.19	0.59	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	442	898	434					1250	559	659	1102	
v/s Ratio Prot	c0.22	0.15	0.01					0.04	0.06	c0.12	c0.17	
v/s Ratio Perm												
v/c Ratio	0.80	0.54	0.05					0.12	0.16	0.64	0.28	
Uniform Delay, d1	25.3	23.2	20.0					16.4	16.6	27.9	7.5	
Progression Factor	0.96	0.97	0.78					1.17	2.39	1.01	1.33	
Incremental Delay, d2	9.6	0.7	0.0					0.2	0.6	1.9	0.1	
Delay (s)	33.8	23.2	15.6					19.4	40.3	30.2	10.1	
Level of Service	C	C	B					B	D	C	B	
Approach Delay (s)		26.7			0.0			32.5			21.7	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			26.0		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				13.5			
Intersection Capacity Utilization			96.7%		ICU Level of Service				F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	406	198	661	24	156	0	0	355	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4501	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4501	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	406	198	661	24	156	0	0	355	44
RTOR Reduction (vph)	0	0	0	0	0	423	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	406	198	238	24	156	0	0	382	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				27.0	27.0	27.0	7.6	40.0			28.4	
Effective Green, g (s)				27.0	27.0	27.0	7.6	40.0			28.4	
Actuated g/C Ratio				0.36	0.36	0.36	0.10	0.53			0.38	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				573	1146	513	161	1698			1704	
v/s Ratio Prot				c0.25	0.06	0.17	c0.02	0.05			c0.08	
v/s Ratio Perm												
v/c Ratio				0.71	0.17	0.46	0.15	0.09			0.22	
Uniform Delay, d1				20.6	16.4	18.4	30.7	8.6			15.8	
Progression Factor				1.00	1.00	1.00	0.56	0.50			1.00	
Incremental Delay, d2				4.0	0.1	0.7	0.4	0.1			0.3	
Delay (s)				24.6	16.5	19.1	17.7	4.4			16.1	
Level of Service				C	B	B	B	A			B	
Approach Delay (s)		0.0			20.5			6.2			16.1	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			18.1		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			96.7%		ICU Level of Service					F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	525	109	0	0	0	0	424	83	82	428	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5605						3107		1593	3185	
Flt Permitted		1.00						1.00		0.41	1.00	
Satd. Flow (perm)		5605						3107		693	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	525	109	0	0	0	0	424	83	82	428	0
RTOR Reduction (vph)	0	55	0	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	649	0	0	0	0	0	480	0	82	428	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.0						21.0		29.0	29.0	
Effective Green, g (s)		23.0						21.0		29.0	29.0	
Actuated g/C Ratio		0.38						0.35		0.48	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		2148						1087		394	1539	
v/s Ratio Prot		c0.12						c0.15		0.01	c0.13	
v/s Ratio Perm										0.09		
v/c Ratio		0.30						0.44		0.21	0.28	
Uniform Delay, d1		12.9						15.0		10.6	9.3	
Progression Factor		1.00						1.00		0.45	0.43	
Incremental Delay, d2		0.1						1.3		0.3	0.4	
Delay (s)		13.0						16.3		5.1	4.4	
Level of Service		B						B		A	A	
Approach Delay (s)		13.0			0.0			16.3			4.5	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.38										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		51.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	91	296	63	97	374	0	0	403	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4436		1593	3185			4522	
Flt Permitted					0.99		0.49	1.00			1.00	
Satd. Flow (perm)					4436		815	3185			4522	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	91	296	63	97	374	0	0	403	35
RTOR Reduction (vph)	0	0	0	0	36	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	414	0	97	374	0	0	421	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1922		405	1380			1356	
v/s Ratio Prot					c0.09		0.02	c0.12			c0.09	
v/s Ratio Perm							0.09					
v/c Ratio					0.22		0.24	0.27			0.31	
Uniform Delay, d1					10.6		11.0	10.9			16.2	
Progression Factor					1.00		0.26	0.31			1.89	
Incremental Delay, d2					0.3		1.3	0.4			0.6	
Delay (s)					10.9		4.2	3.8			31.2	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			10.9			3.9			31.2	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.0				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			51.8%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	273	83	1	268	91	0	360	29	0	497	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3074			3064			3150			3124	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		2927			2924			3150			3124	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	273	83	1	268	91	0	360	29	0	497	73
RTOR Reduction (vph)	0	47	0	0	56	0	0	10	0	0	20	0
Lane Group Flow (vph)	0	312	0	0	304	0	0	379	0	0	551	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.5			21.5			27.5			27.5	
Effective Green, g (s)		21.5			21.5			27.5			27.5	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1048			1047			1443			1431	
v/s Ratio Prot								0.12			c0.18	
v/s Ratio Perm		c0.11			0.10							
v/c Ratio		0.30			0.29			0.26			0.38	
Uniform Delay, d1		13.8			13.8			10.0			10.7	
Progression Factor		1.00			1.00			1.52			1.00	
Incremental Delay, d2		0.7			0.7			0.4			0.8	
Delay (s)		14.6			14.5			15.6			11.5	
Level of Service		B			B			B			B	
Approach Delay (s)		14.6			14.5			15.6			11.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		40.8%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	12	52	0	0	0	0	12	13	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	12	52	0	0	0	0	12	13	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	52			41			126	110	34	110	117	52
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52			41			126	110	34	110	117	52
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	98	99
cM capacity (veh/h)	1554			1568			824	775	1040	864	767	1016
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	64	18	16								
Volume Left	0	12	12	0								
Volume Right	15	0	0	10								
cSH	1700	1568	827	901								
Volume to Capacity	0.02	0.01	0.02	0.02								
Queue Length 95th (ft)	0	1	2	1								
Control Delay (s)	0.0	1.4	9.5	9.1								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.3									
Approach LOS			A									
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			20.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	28	13	15	35	0	0	0	0	6	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	28	13	15	35	0	0	0	0	6	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	35			41			103	100	34	100	106	35
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			41			103	100	34	100	106	35
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1576			1568			867	783	1039	876	777	1038
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	50	8	4								
Volume Left	0	15	6	0								
Volume Right	13	0	0	2								
cSH	1700	1568	854	907								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	2.2	9.3	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	2.2	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			19.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	62	124	168	70	64	100
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	62	124	168	70	64	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		256	124	248	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		256	124	248	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	96		70	91	90	91
cM capacity (veh/h)	1623		567	737	630	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	62	124	238	64	100	
Volume Left	62	0	168	0	0	
Volume Right	0	124	0	0	100	
cSH	1623	1700	608	630	1085	
Volume to Capacity	0.04	0.07	0.39	0.10	0.09	
Queue Length 95th (ft)	3	0	46	8	8	
Control Delay (s)	7.3	0.0	14.7	11.4	8.7	
Lane LOS	A		B	B	A	
Approach Delay (s)	2.4		14.7	9.7		
Approach LOS			B	A		
Intersection Summary						
Average Delay	9.4					
Intersection Capacity Utilization	29.8%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	214	0	0	0	0	0	533	1197	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4533						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4533						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	214	0	0	0	0	0	533	1197	0	0	0
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	539	0	0	0
Lane Group Flow (vph)	0	237	0	0	0	0	0	533	658	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		27.0						23.0	29.0			
Effective Green, g (s)		27.0						23.0	29.0			
Actuated g/C Ratio		0.45						0.38	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2039						1754	1212			
v/s Ratio Prot								0.12				
v/s Ratio Perm		0.05							c0.26			
v/c Ratio		0.12						0.30	0.54			
Uniform Delay, d1		9.6						12.9	10.9			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.4	1.7			
Delay (s)		9.7						13.4	12.6			
Level of Service		A						B	B			
Approach Delay (s)		9.7			0.0			12.8			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.4						HCM 2000 Level of Service	B			
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		93.0%						ICU Level of Service	F			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑		↑	↑	
Volume (vph)	260	366	418	0	0	0	0	217	33	66	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4721						1830		1770	1863	
Flt Permitted		0.99						1.00		0.57	1.00	
Satd. Flow (perm)		4721						1830		1055	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	260	366	418	0	0	0	0	217	33	66	89	0
RTOR Reduction (vph)	0	160	0	0	0	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	884	0	0	0	0	0	243	0	66	89	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2171						719		414	732	
v/s Ratio Prot								c0.13			0.05	
v/s Ratio Perm		0.19								0.06		
v/c Ratio		0.41						0.34		0.16	0.12	
Uniform Delay, d1		13.5						15.9		14.7	14.5	
Progression Factor		1.00						1.00		0.68	0.70	
Incremental Delay, d2		0.6						1.3		0.8	0.3	
Delay (s)		14.0						17.2		10.8	10.4	
Level of Service		B						B		B	B	
Approach Delay (s)		14.0			0.0			17.2			10.6	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		69.7%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	279	50	279	238	0	0	178	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.64	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1081	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	279	50	279	238	0	0	178	1262
RTOR Reduction (vph)	0	0	0	0	0	37	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	279	13	279	238	0	0	178	1262
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	641	994			994	1425
v/s Ratio Prot				0.00	0.17			0.14			0.11	
v/s Ratio Perm						0.01	0.26					c0.89
v/c Ratio				0.00	0.64	0.04	0.44	0.24			0.18	0.89
Uniform Delay, d1				20.6	24.6	20.7	8.4	7.2			6.9	0.0
Progression Factor				1.00	1.00	1.00	1.08	1.09			1.00	1.00
Incremental Delay, d2				0.0	7.1	0.2	2.0	0.5			0.4	8.4
Delay (s)				20.6	31.7	20.9	11.1	8.4			7.3	8.4
Level of Service				C	C	C	B	A			A	A
Approach Delay (s)		0.0			30.0			9.9			8.3	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.8		HCM 2000 Level of Service						B	
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)						11.0	
Intersection Capacity Utilization			69.7%		ICU Level of Service						C	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	442	1113	0	0	0	0	265	67	20	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3969	1226					1631			1670	
Flt Permitted		1.00	1.00					1.00			0.97	
Satd. Flow (perm)		3969	1226					1631			1625	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	442	1113	0	0	0	0	265	67	20	255	0
RTOR Reduction (vph)	0	355	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	676	556	0	0	0	0	317	0	0	275	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		19.0	60.0					32.0			32.0	
Effective Green, g (s)		19.0	60.0					32.0			32.0	
Actuated g/C Ratio		0.32	1.00					0.53			0.53	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1256	1226					869			866	
v/s Ratio Prot		0.17						0.19				
v/s Ratio Perm			c0.45								0.17	
v/c Ratio		0.54	0.45					0.36			0.32	
Uniform Delay, d1		16.9	0.0					8.1			7.9	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		1.7	1.2					1.2			1.0	
Delay (s)		18.5	1.2					9.3			8.8	
Level of Service		B	A					A			A	
Approach Delay (s)		12.5			0.0			9.3			8.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.5									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			60.0								9.0	
Intersection Capacity Utilization			60.2%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↙↑	
Volume (vph)	0	416	17	0	0	0	0	0	0	548	127	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5055								1610	3278	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5055								1610	3278	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	17	0	0	0	0	0	0	548	127	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	119	119	0
Lane Group Flow (vph)	0	424	0	0	0	0	0	0	0	155	282	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1567	
v/s Ratio Prot		c0.08										
v/s Ratio Perm										c0.10	0.09	
v/c Ratio		0.24								0.20	0.18	
Uniform Delay, d1		10.7								6.9	6.8	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.3								0.6	0.3	
Delay (s)		11.0								7.5	7.1	
Level of Service		B								A	A	
Approach Delay (s)		11.0			0.0			0.0			7.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.7				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			46.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			29.8%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	31	164	0	0	0	0	0	639	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4541						4407	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4541						4407	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	31	164	0	0	0	0	0	639	210
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	174	0	0	0	0	0	742	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1513						2154	
v/s Ratio Prot					c0.04						c0.17	
v/s Ratio Perm												
v/c Ratio					0.12						0.34	
Uniform Delay, d1					10.4						7.1	
Progression Factor					1.07						1.00	
Incremental Delay, d2					0.1						0.4	
Delay (s)					11.3						7.5	
Level of Service					B						A	
Approach Delay (s)		0.0			11.3			0.0			7.5	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.2		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.25									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			29.8%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	331	193	0	0	0	0	0	0	121	607	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0										4.0
Lane Util. Factor		0.86										0.91
Frt		0.94										1.00
Flt Protected		1.00										0.99
Satd. Flow (prot)		5448										4539
Flt Permitted		1.00										0.99
Satd. Flow (perm)		5448										4539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	331	193	0	0	0	0	0	0	121	607	0
RTOR Reduction (vph)	0	119	0	0	0	0	0	0	0	0	50	0
Lane Group Flow (vph)	0	405	0	0	0	0	0	0	0	0	678	0
Turn Type		NA								Perm	NA	
Protected Phases		4								6		
Permitted Phases										6		
Actuated Green, G (s)		23.0								29.0		
Effective Green, g (s)		23.0								29.0		
Actuated g/C Ratio		0.38								0.48		
Clearance Time (s)		4.0								4.0		
Vehicle Extension (s)		3.0								3.0		
Lane Grp Cap (vph)		2088								2193		
v/s Ratio Prot		c0.07										
v/s Ratio Perm										0.15		
v/c Ratio		0.19								0.31		
Uniform Delay, d1		12.3								9.4		
Progression Factor		0.53								1.00		
Incremental Delay, d2		0.2								0.4		
Delay (s)		6.7								9.8		
Level of Service		A								A		
Approach Delay (s)		6.7				0.0		0.0		9.8		
Approach LOS		A				A		A		A		
Intersection Summary												
HCM 2000 Control Delay		8.5			HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio		0.26										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)				8.0			
Intersection Capacity Utilization		38.3%			ICU Level of Service				A			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	192	0	75	2	0	0	165	227	0	0	201	127
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	192	0	75	2	0	0	165	227	0	0	201	127
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	708	822	164	732	885	114	328			227		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	708	822	164	732	885	114	328			227		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	33	100	91	99	100	100	87			100		
cM capacity (veh/h)	289	266	852	253	244	918	1228			1339		
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	192	75	165	114	114	134	194					
Volume Left	192	0	165	0	0	0	0					
Volume Right	0	75	0	0	0	0	127					
cSH	289	852	1228	1700	1700	1700	1700					
Volume to Capacity	0.67	0.09	0.13	0.07	0.07	0.08	0.11					
Queue Length 95th (ft)	109	7	12	0	0	0	0					
Control Delay (s)	39.2	9.6	8.4	0.0	0.0	0.0	0.0					
Lane LOS	E	A	A									
Approach Delay (s)	30.9		3.5			0.0						
Approach LOS	D											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	57	65	58	381	289	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1689		1770	1863	1863	1583
Flt Permitted	0.98		0.58	1.00	1.00	1.00
Satd. Flow (perm)	1689		1086	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	57	65	58	381	289	52
RTOR Reduction (vph)	57	0	0	0	0	14
Lane Group Flow (vph)	65	0	58	381	289	38
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	6.4		39.4	39.4	39.4	39.4
Effective Green, g (s)	6.4		39.4	39.4	39.4	39.4
Actuated g/C Ratio	0.12		0.73	0.73	0.73	0.73
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	200		795	1364	1364	1159
v/s Ratio Prot	c0.04			c0.20	0.16	
v/s Ratio Perm			0.05			0.02
v/c Ratio	0.32		0.07	0.28	0.21	0.03
Uniform Delay, d1	21.7		2.0	2.4	2.3	2.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9		0.2	0.5	0.4	0.1
Delay (s)	22.7		2.2	2.9	2.6	2.0
Level of Service	C		A	A	A	A
Approach Delay (s)	22.7			2.8	2.5	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			5.4	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.29			
Actuated Cycle Length (s)			53.8	Sum of lost time (s)		8.0
Intersection Capacity Utilization			35.7%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	555	126	0	0	0	0	263	173	2	168	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.94			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3329			1862	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		4919						3329			1854	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	555	126	0	0	0	0	263	173	2	168	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	115	0	0	0	0
Lane Group Flow (vph)	0	850	0	0	0	0	0	321	0	0	170	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1109			618	
v/s Ratio Prot		c0.17						c0.10				
v/s Ratio Perm											0.09	
v/c Ratio		0.35						0.29			0.28	
Uniform Delay, d1		7.1						11.1			11.0	
Progression Factor		1.00						1.00			1.22	
Incremental Delay, d2		0.4						0.7			1.1	
Delay (s)		7.5						11.7			14.4	
Level of Service		A						B			B	
Approach Delay (s)		7.5			0.0			11.7			14.4	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		9.5						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		37.5%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	151	66	567	116	393	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.91	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					2750	1297		3149				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					2750	1297		3149				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	151	66	567	116	393	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	120	120	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	381	163	0	509	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1344	634		1049				
v/s Ratio Prot					c0.14			c0.16				
v/s Ratio Perm						0.13						
v/c Ratio					0.28	0.26		0.49				
Uniform Delay, d1					6.8	6.7		11.9				
Progression Factor					1.00	1.00		0.89				
Incremental Delay, d2					0.5	1.0		1.5				
Delay (s)					7.4	7.7		12.2				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.5			12.2			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.3		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.37									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			48.5%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	324	0	0	0	0	0	850	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5708						4509				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5708						4509				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	324	0	0	0	0	0	850	93	0	0	0
RTOR Reduction (vph)	0	35	0	0	0	0	0	22	0	0	0	0
Lane Group Flow (vph)	0	373	0	0	0	0	0	921	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2568						1803				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.07										
v/c Ratio		0.15						0.51				
Uniform Delay, d1		9.7						13.6				
Progression Factor		1.17						1.00				
Incremental Delay, d2		0.1						1.0				
Delay (s)		11.5						14.6				
Level of Service		B						B				
Approach Delay (s)		11.5			0.0			14.6			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.32										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		67.6%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	231	4	4	264	190	7	2	2	267	4	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	231	4	4	264	190	7	2	2	267	4	103
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	256	268	190	11	374							
Volume Left (vph)	21	4	0	7	267							
Volume Right (vph)	4	0	190	2	103							
Hadj (s)	0.04	0.04	-0.67	0.05	0.01							
Departure Headway (s)	5.9	6.1	5.4	6.6	5.7							
Degree Utilization, x	0.42	0.46	0.29	0.02	0.59							
Capacity (veh/h)	575	562	633	444	598							
Control Delay (s)	13.1	13.0	9.4	9.8	16.7							
Approach Delay (s)	13.1	11.5		9.8	16.7							
Approach LOS	B	B		A	C							
Intersection Summary												
Delay			13.6									
Level of Service			B									
Intersection Capacity Utilization			62.7%	ICU Level of Service					B			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	197	69	23	202	64	75	836	36	40	442	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	214	75	25	220	70	82	909	39	43	480	255
RTOR Reduction (vph)	0	0	52	0	33	0	0	2	0	0	0	215
Lane Group Flow (vph)	299	214	23	25	257	0	82	946	0	43	480	40
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Effective Green, g (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Actuated g/C Ratio	0.16	0.30	0.30	0.04	0.18		0.10	0.38		0.06	0.35	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	544	1075	481	64	620		170	1340		108	1224	251
v/s Ratio Prot	c0.09	0.06		0.01	c0.08		c0.05	c0.27		0.02	0.14	0.03
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.20	0.05	0.39	0.41		0.48	0.71		0.40	0.39	0.16
Uniform Delay, d1	28.6	19.0	18.1	34.7	26.7		31.6	19.3		33.3	18.2	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	3.9	0.5		2.2	3.1		2.4	0.9	0.3
Delay (s)	29.7	19.1	18.2	38.6	27.1		33.7	22.4		35.7	19.2	27.1
Level of Service	C	B	B	D	C		C	C		D	B	C
Approach Delay (s)		24.4			28.0			23.3			22.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			23.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			73.7			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			56.4%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	173	76	33	171	82	107	808	42	75	307	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	188	83	36	186	89	116	878	46	82	334	37
RTOR Reduction (vph)	0	50	0	0	62	0	0	0	28	0	0	23
Lane Group Flow (vph)	101	221	0	36	213	0	116	878	18	82	334	14
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Effective Green, g (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Actuated g/C Ratio	0.11	0.24		0.04	0.17		0.09	0.39	0.39	0.08	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	803		77	571		312	1394	623	280	1361	609
v/s Ratio Prot	c0.06	0.07		0.02	c0.06		c0.03	c0.25		0.02	0.09	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.51	0.27		0.47	0.37		0.37	0.63	0.03	0.29	0.25	0.02
Uniform Delay, d1	27.6	20.5		30.8	24.3		28.2	16.1	12.3	28.5	13.8	12.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.2		4.4	0.4		0.7	2.2	0.1	0.6	0.4	0.1
Delay (s)	29.8	20.7		35.2	24.7		29.0	18.3	12.3	29.1	14.2	12.7
Level of Service	C	C		D	C		C	B	B	C	B	B
Approach Delay (s)		23.2			25.9			19.2			16.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			66.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			51.5%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Residential Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	273	22	14	125	91	41	116	25	46	59	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	52	273	22	14	125	91	41	116	25	46	59	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	216			295			545	632	148	522	598	108
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216			295			545	632	148	522	598	108
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			88	69	97	85	85	96
cM capacity (veh/h)	1351			1263			345	377	873	312	394	925
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	188	158	76	154	182	46	39	57				
Volume Left	52	0	14	0	41	46	0	0				
Volume Right	0	22	0	91	25	0	0	37				
cSH	1351	1700	1263	1700	400	312	394	630				
Volume to Capacity	0.04	0.09	0.01	0.09	0.46	0.15	0.10	0.09				
Queue Length 95th (ft)	3	0	1	0	58	13	8	7				
Control Delay (s)	2.4	0.0	1.5	0.0	21.3	18.5	15.1	11.3				
Lane LOS	A		A		C	C	C	B				
Approach Delay (s)	1.3		0.5		21.3	14.7						
Approach LOS					C	B						
Intersection Summary												
Average Delay			7.3									
Intersection Capacity Utilization			43.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	730	29	0	0	0	0	220	25	103	109	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5054						3485		1770	5085	
Flt Permitted		1.00						1.00		0.57	1.00	
Satd. Flow (perm)		5054						3485		1063	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	730	29	0	0	0	0	220	25	103	109	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	763	0	0	0	0	0	236	0	103	109	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		60.5						19.5		19.5	19.5	
Effective Green, g (s)		60.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.67						0.22		0.22	0.22	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3397						755		230	1101	
v/s Ratio Prot								0.07			0.02	
v/s Ratio Perm		0.15								c0.10		
v/c Ratio		0.22						0.31		0.45	0.10	
Uniform Delay, d1		5.7						29.6		30.6	28.2	
Progression Factor		1.00						1.00		0.87	0.86	
Incremental Delay, d2		0.2						1.1		6.2	0.2	
Delay (s)		5.8						30.7		32.7	24.4	
Level of Service		A						C		C	C	
Approach Delay (s)		5.8			0.0			30.7			28.4	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay		14.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.28										
Actuated Cycle Length (s)		90.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↑↑	↑		↓	↑			↑↑
Volume (vph)	0	0	0	30	145	265	12	32	195	0	0	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.64	1.00			1.00
Satd. Flow (perm)					3509	1583		1200	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	30	145	265	12	32	195	0	0	170
RTOR Reduction (vph)	0	0	0	0	0	233	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	175	32	0	44	195	0	0	170
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					10.8	10.8		70.2	70.2			70.2
Effective Green, g (s)					10.8	10.8		70.2	70.2			70.2
Actuated g/C Ratio					0.12	0.12		0.78	0.78			0.78
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					421	189		936	1453			2760
v/s Ratio Prot									c0.10			0.05
v/s Ratio Perm					0.05	0.02		0.04				
v/c Ratio					0.42	0.17		0.05	0.13			0.06
Uniform Delay, d1					36.7	35.6		2.3	2.4			2.3
Progression Factor					1.00	1.88		0.11	0.44			1.00
Incremental Delay, d2					0.7	0.4		0.1	0.2			0.0
Delay (s)					37.3	67.3		0.3	1.2			2.3
Level of Service					D	E		A	A			A
Approach Delay (s)		0.0			55.3				1.1			2.3
Approach LOS		A			E				A			A
Intersection Summary												
HCM 2000 Control Delay			28.4		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.17									
Actuated Cycle Length (s)			90.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			39.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	34
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	34
RTOR Reduction (vph)	7
Lane Group Flow (vph)	27
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	70.2
Effective Green, g (s)	70.2
Actuated g/C Ratio	0.78
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1234
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.02
Uniform Delay, d1	2.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	2.2
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	705	66	36	325	35	189	213	45	53	95	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5020		1770	5011		1770	1814		1770	3539	1583
Flt Permitted	0.53	1.00		0.32	1.00		0.69	1.00		0.54	1.00	1.00
Satd. Flow (perm)	985	5020		589	5011		1290	1814		1006	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	705	66	36	325	35	189	213	45	53	95	60
RTOR Reduction (vph)	0	13	0	0	15	0	0	9	0	0	0	34
Lane Group Flow (vph)	94	758	0	36	345	0	189	249	0	53	95	26
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Effective Green, g (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	451	2303		270	2299		553	778		431	1519	679
v/s Ratio Prot		c0.15			0.07			0.14			0.03	
v/s Ratio Perm	0.10			0.06			c0.15			0.05		0.02
v/c Ratio	0.21	0.33		0.13	0.15		0.34	0.32		0.12	0.06	0.04
Uniform Delay, d1	13.8	14.7		13.3	13.4		16.2	16.0		14.6	14.2	14.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.4		1.0	0.1		1.7	1.1		0.1	0.0	0.0
Delay (s)	14.8	15.0		14.3	13.5		17.9	17.1		14.7	14.2	14.1
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		15.0			13.6			17.5			14.3	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.2			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		85.0			Sum of lost time (s)			9.5				
Intersection Capacity Utilization		51.5%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	158	500	1114	35	61	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5415	4556		2984	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5415	4556		2984	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	500	1114	35	61	33
RTOR Reduction (vph)	90	65	3	0	0	0
Lane Group Flow (vph)	36	467	1146	0	94	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	24.0	24.0	29.2		16.8	
Effective Green, g (s)	24.0	24.0	29.2		16.8	
Actuated g/C Ratio	0.28	0.28	0.34		0.20	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	364	1528	1565		589	
v/s Ratio Prot	0.03	c0.09	c0.25		c0.03	
v/s Ratio Perm						
v/c Ratio	0.10	0.31	0.73		0.16	
Uniform Delay, d1	22.5	24.0	24.5		28.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.5	3.1		0.1	
Delay (s)	23.0	24.5	27.5		28.4	
Level of Service	C	C	C		C	
Approach Delay (s)		24.2	27.5		28.4	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			26.4		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			85.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			75.6%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	216	696	29	1436	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2769	1297	1290	5431				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2769	1297	1290	5431				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	216	696	29	1436	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	16	12	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	562	332	14	1430	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					31.3	31.3	44.2	44.2				
Effective Green, g (s)					31.3	31.3	44.2	44.2				
Actuated g/C Ratio					0.37	0.37	0.52	0.52				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1019	477	670	2824				
v/s Ratio Prot					0.20							
v/s Ratio Perm						c0.26	0.01	0.26				
v/c Ratio					0.55	0.70	0.02	0.51				
Uniform Delay, d1					21.3	22.8	9.9	13.3				
Progression Factor					1.00	1.00	0.03	0.25				
Incremental Delay, d2					0.6	4.4	0.0	0.5				
Delay (s)					21.9	27.2	0.4	3.8				
Level of Service					C	C	A	A				
Approach Delay (s)		0.0			23.9			3.7			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.5									
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			85.0									
Intersection Capacity Utilization			61.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	163	60	13	124	105	30	146	17	93	100	20
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	163	60	13	124	105	30	146	17	93	100	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	245	242	193	143	70							
Volume Left (vph)	22	13	30	93	0							
Volume Right (vph)	60	105	17	0	20							
Hadj (s)	-0.09	-0.22	0.01	0.36	-0.17							
Departure Headway (s)	5.4	5.3	5.8	6.5	6.0							
Degree Utilization, x	0.37	0.36	0.31	0.26	0.12							
Capacity (veh/h)	617	629	565	510	552							
Control Delay (s)	11.5	11.2	11.3	10.6	8.6							
Approach Delay (s)	11.5	11.2	11.3	9.9								
Approach LOS	B	B	B	A								
Intersection Summary												
Delay			11.0									
Level of Service			B									
Intersection Capacity Utilization			46.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	31	16	17	26	64	18	295	49	53	278	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	40	31	16	17	26	64	18	295	49	53	278	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	1.00	1.00	1.00	1.00	1.00		1.00					
vC, conflicting volume	661	780	156	632	772	172	311			344		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	655	775	149	626	767	172	304			344		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	90	98	95	92	92	99			96		
cM capacity (veh/h)	290	308	869	319	311	842	1250			1212		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	87	107	166	196	192	172						
Volume Left	40	17	18	0	53	0						
Volume Right	16	64	0	49	0	33						
cSH	338	502	1250	1700	1212	1700						
Volume to Capacity	0.26	0.21	0.01	0.12	0.04	0.10						
Queue Length 95th (ft)	25	20	1	0	3	0						
Control Delay (s)	19.3	14.1	1.0	0.0	2.5	0.0						
Lane LOS	C	B	A		A							
Approach Delay (s)	19.3	14.1	0.4		1.3							
Approach LOS	C	B										
Intersection Summary												
Average Delay			4.2									
Intersection Capacity Utilization			41.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	135	28	10	120	116	45	299	12	43	252	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.97			0.94			0.99			0.97	
Flt Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1815			1741			3499			3426	
Flt Permitted	0.58	1.00			0.99			0.88			0.88	
Satd. Flow (perm)	1089	1815			1725			3085			3036	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	135	28	10	120	116	45	299	12	43	252	62
RTOR Reduction (vph)	0	10	0	0	43	0	0	3	0	0	24	0
Lane Group Flow (vph)	106	153	0	0	203	0	0	353	0	0	333	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	464	774			736			1398			1376	
v/s Ratio Prot		0.08										
v/s Ratio Perm	0.10				c0.12			c0.11			0.11	
v/c Ratio	0.23	0.20			0.28			0.25			0.24	
Uniform Delay, d1	13.7	13.5			14.0			12.7			12.6	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.1	0.6			0.9			0.4			0.4	
Delay (s)	14.8	14.0			14.9			13.1			13.0	
Level of Service	B	B			B			B			B	
Approach Delay (s)		14.3			14.9			13.1			13.0	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.7									
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			57.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1007	296	73	0	0	0	0	318	382	591	334	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3287	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3287	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1007	296	73	0	0	0	0	318	382	591	334	0
RTOR Reduction (vph)	0	0	48	0	0	0	0	0	159	0	0	0
Lane Group Flow (vph)	503	800	25	0	0	0	0	318	223	591	334	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	31.1	31.1	31.1					25.9	25.9	19.5	48.9	
Effective Green, g (s)	31.1	31.1	31.1					25.9	25.9	19.5	48.9	
Actuated g/C Ratio	0.35	0.35	0.35					0.29	0.29	0.22	0.54	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	556	1135	547					1018	455	743	1012	
v/s Ratio Prot	c0.31	0.24	0.02					0.09	c0.14	c0.17	0.18	
v/s Ratio Perm												
v/c Ratio	0.90	0.87dl	0.05					0.31	0.49	0.80	0.33	
Uniform Delay, d1	28.0	25.5	19.6					25.1	26.6	33.4	11.4	
Progression Factor	0.86	0.86	0.73					1.00	1.00	0.83	1.08	
Incremental Delay, d2	18.1	2.0	0.0					0.8	3.7	5.4	0.2	
Delay (s)	42.2	23.9	14.3					25.9	30.3	33.0	12.6	
Level of Service	D	C	B					C	C	C	B	
Approach Delay (s)		30.1			0.0			28.3			25.6	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			28.3									
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			111.8%									
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	248	139	617	76	285	0	0	752	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4547	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4547	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	248	139	617	76	285	0	0	752	34
RTOR Reduction (vph)	0	0	0	0	0	338	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	248	139	279	76	285	0	0	782	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				30.0	30.0	30.0	15.2	52.0			32.8	
Effective Green, g (s)				30.0	30.0	30.0	15.2	52.0			32.8	
Actuated g/C Ratio				0.33	0.33	0.33	0.17	0.58			0.36	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				531	1061	475	269	1840			1657	
v/s Ratio Prot				0.16	0.04	c0.20	c0.05	0.09			c0.17	
v/s Ratio Perm												
v/c Ratio				0.47	0.13	0.59	0.28	0.15			0.47	
Uniform Delay, d1				23.7	20.9	24.9	32.6	8.8			22.0	
Progression Factor				1.00	1.00	1.00	0.73	0.98			1.00	
Incremental Delay, d2				0.7	0.1	1.9	0.4	0.1			1.0	
Delay (s)				24.3	21.0	26.7	24.3	8.7			22.9	
Level of Service				C	C	C	C	A			C	
Approach Delay (s)		0.0			25.3			12.0			22.9	
Approach LOS		A			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			22.2									
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			111.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	486	191	0	0	0	0	482	77	99	726	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.96						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		5518						3119		1593	3185	
Flt Permitted		0.99						1.00		0.38	1.00	
Satd. Flow (perm)		5518						3119		634	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	486	191	0	0	0	0	482	77	99	726	0
RTOR Reduction (vph)	0	93	0	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	703	0	0	0	0	0	538	0	99	726	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.0						21.0		29.0	29.0	
Effective Green, g (s)		23.0						21.0		29.0	29.0	
Actuated g/C Ratio		0.38						0.35		0.48	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		2115						1091		370	1539	
v/s Ratio Prot		c0.13						0.17		0.02	c0.23	
v/s Ratio Perm										0.11		
v/c Ratio		0.33						0.49		0.27	0.47	
Uniform Delay, d1		13.1						15.3		11.5	10.4	
Progression Factor		1.00						1.00		0.77	0.79	
Incremental Delay, d2		0.1						1.6		0.4	0.9	
Delay (s)		13.2						16.9		9.2	9.2	
Level of Service		B						B		A	A	
Approach Delay (s)		13.2			0.0			16.9			9.2	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		55.0%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	161	511	94	132	474	0	0	613	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4446		1593	3185			4495	
Flt Permitted					0.99		0.33	1.00			1.00	
Satd. Flow (perm)					4446		546	3185			4495	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	161	511	94	132	474	0	0	613	83
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	736	0	132	474	0	0	667	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1926		306	1380			1348	
v/s Ratio Prot					c0.17		0.03	c0.15			c0.15	
v/s Ratio Perm							0.16					
v/c Ratio					0.38		0.43	0.34			0.50	
Uniform Delay, d1					11.5		14.4	11.3			17.3	
Progression Factor					1.00		0.43	0.49			1.50	
Incremental Delay, d2					0.6		4.0	0.6			1.0	
Delay (s)					12.1		10.2	6.1			26.9	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			12.1			7.0			26.9	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			55.0%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	319	109	3	379	114	2	486	32	0	788	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3063			3075			3155			3131	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		2905			2930			3005			3131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	319	109	3	379	114	2	486	32	0	788	100
RTOR Reduction (vph)	0	55	0	0	46	0	0	8	0	0	16	0
Lane Group Flow (vph)	0	379	0	0	450	0	0	512	0	0	872	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		23.5			23.5			25.5			25.5	
Effective Green, g (s)		23.5			23.5			25.5			25.5	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1137			1147			1277			1330	
v/s Ratio Prot											c0.28	
v/s Ratio Perm		0.13			c0.15			0.17				
v/c Ratio		0.33			0.39			0.40			0.66	
Uniform Delay, d1		12.8			13.1			12.0			13.7	
Progression Factor		1.00			1.00			1.40			1.00	
Incremental Delay, d2		0.8			1.0			0.9			2.5	
Delay (s)		13.6			14.1			17.6			16.3	
Level of Service		B			B			B			B	
Approach Delay (s)		13.6			14.1			17.6			16.3	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.6			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.53										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		55.5%			ICU Level of Service			B				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	10	32	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	10	32	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			262	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			262	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	95	98
cM capacity (veh/h)	1514			1460			644	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	26	37								
Volume Left	0	18	10	0								
Volume Right	39	0	0	21								
cSH	1700	1460	676	802								
Volume to Capacity	0.07	0.01	0.04	0.05								
Queue Length 95th (ft)	0	1	3	4								
Control Delay (s)	0.0	1.4	10.5	9.7								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.1									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	210	12	27	223	0	0	0	0	14	21	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	210	12	27	223	0	0	0	0	14	21	86
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		367			383							
pX, platoon unblocked				0.99			0.99	0.99	0.99	0.99	0.99	
vC, conflicting volume	223			222			590	493	216	493	499	223
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	223			209			580	483	203	483	489	223
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	95	89
cM capacity (veh/h)	1346			1348			358	469	829	482	465	817
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	222	250	24	96								
Volume Left	0	27	14	0								
Volume Right	12	0	0	86								
cSH	1700	1348	474	755								
Volume to Capacity	0.13	0.02	0.05	0.13								
Queue Length 95th (ft)	0	2	4	11								
Control Delay (s)	0.0	1.0	13.0	10.5								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.0	11.0									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			38.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	112	242	192	111	125	76
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	112	242	192	111	125	76
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		362	224	466	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		362	224	466	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	93		54	82	73	93
cM capacity (veh/h)	1623		414	628	460	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	112	242	303	125	76	
Volume Left	112	0	192	0	0	
Volume Right	0	242	0	0	76	
cSH	1623	1700	473	460	1085	
Volume to Capacity	0.07	0.14	0.64	0.27	0.07	
Queue Length 95th (ft)	6	0	111	27	6	
Control Delay (s)	7.4	0.0	25.2	15.7	8.6	
Lane LOS	A		D	C	A	
Approach Delay (s)	2.3		25.2	13.0		
Approach LOS			D	B		
Intersection Summary						
Average Delay			12.9			
Intersection Capacity Utilization			39.3%		ICU Level of Service	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑	↑↑			
Volume (vph)	86	394	0	0	0	0	0	510	908	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4536						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4536						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	394	0	0	0	0	0	510	908	0	0	0
RTOR Reduction (vph)	0	44	0	0	0	0	0	0	424	0	0	0
Lane Group Flow (vph)	0	436	0	0	0	0	0	510	484	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		29.0						21.0	22.0			
Effective Green, g (s)		29.0						21.0	22.0			
Actuated g/C Ratio		0.48						0.35	0.37			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2192						1601	919			
v/s Ratio Prot								0.11				
v/s Ratio Perm		0.10							c0.19			
v/c Ratio		0.20						0.32	0.53			
Uniform Delay, d1		8.9						14.3	14.9			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.2						0.5	2.2			
Delay (s)		9.1						14.8	17.1			
Level of Service		A						B	B			
Approach Delay (s)		9.1			0.0			16.2			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		14.4										
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		60.0										
Intersection Capacity Utilization		81.8%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	232	484	380	0	0	0	0	505	28	106	122	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4770						1850		1770	1863	
Flt Permitted		0.99						1.00		0.25	1.00	
Satd. Flow (perm)		4770						1850		466	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	232	484	380	0	0	0	0	505	28	106	122	0
RTOR Reduction (vph)	0	127	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	969	0	0	0	0	0	531	0	106	122	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2194						727		183	732	
v/s Ratio Prot								c0.29			0.07	
v/s Ratio Perm		0.20								0.23		
v/c Ratio		0.44						0.73		0.58	0.17	
Uniform Delay, d1		13.7						19.4		17.9	14.8	
Progression Factor		1.00						1.00		0.68	0.70	
Incremental Delay, d2		0.6						6.4		12.6	0.5	
Delay (s)		14.4						25.7		24.7	10.8	
Level of Service		B						C		C	B	
Approach Delay (s)		14.4			0.0			25.7			17.3	
Approach LOS		B			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		18.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.57										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		90.1%						ICU Level of Service		E		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	9	322	44	398	368	0	0	216	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.62	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1045	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	322	44	398	368	0	0	216	425
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	322	11	398	368	0	0	216	425
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	620	994			994	1425
v/s Ratio Prot				0.01	c0.19			0.22			0.13	
v/s Ratio Perm						0.01	c0.38					0.30
v/c Ratio				0.02	0.74	0.03	0.64	0.37			0.22	0.30
Uniform Delay, d1				20.7	25.4	20.7	10.0	7.9			7.1	0.0
Progression Factor				1.00	1.00	1.00	0.57	0.60			1.00	1.00
Incremental Delay, d2				0.1	10.8	0.2	4.0	0.8			0.5	0.5
Delay (s)				20.7	36.2	20.9	9.7	5.6			7.6	0.5
Level of Service				C	D	C	A	A			A	A
Approach Delay (s)		0.0			34.0			7.8			2.9	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.6									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			75.0								11.0	Sum of lost time (s)
Intersection Capacity Utilization			90.1%									ICU Level of Service E
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	32	839	415	0	0	0	0	234	108	30	281	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	4.0					4.0			4.0		
Lane Util. Factor		0.86	0.86					1.00			1.00		
Frt		0.98	0.85					0.96			1.00		
Flt Protected		1.00	1.00					1.00			1.00		
Satd. Flow (prot)		4237	1226					1605			1668		
Flt Permitted		1.00	1.00					1.00			0.95		
Satd. Flow (perm)		4237	1226					1605			1592		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	32	839	415	0	0	0	0	234	108	30	281	0	
RTOR Reduction (vph)	0	29	0	0	0	0	0	28	0	0	0	0	
Lane Group Flow (vph)	0	967	290	0	0	0	0	314	0	0	311	0	
Turn Type	Split	NA	Free					NA		Perm	NA		
Protected Phases	4	4						2			6		
Permitted Phases			Free							6			
Actuated Green, G (s)		27.0	60.0					24.0			24.0		
Effective Green, g (s)		27.0	60.0					24.0			24.0		
Actuated g/C Ratio		0.45	1.00					0.40			0.40		
Clearance Time (s)		5.0						4.0			4.0		
Vehicle Extension (s)		3.0						3.0			3.0		
Lane Grp Cap (vph)		1906	1226					642			636		
v/s Ratio Prot		c0.23						c0.20					
v/s Ratio Perm			0.24								0.20		
v/c Ratio		0.51	0.24					0.49			0.49		
Uniform Delay, d1		11.8	0.0					13.4			13.4		
Progression Factor		1.00	1.00					1.00			1.00		
Incremental Delay, d2		1.0	0.5					2.7			2.7		
Delay (s)		12.7	0.5					16.1			16.1		
Level of Service		B	A					B			B		
Approach Delay (s)		10.0			0.0			16.1			16.1		
Approach LOS		A			A			B			B		
Intersection Summary													
HCM 2000 Control Delay			12.0									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.50										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	9.0
Intersection Capacity Utilization			72.3%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	539	26	0	0	0	0	0	0	747	132	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3269	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3269	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	539	26	0	0	0	0	0	0	747	132	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	74	74	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	299	432	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1563	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.19	0.13	
v/c Ratio		0.32								0.39	0.28	
Uniform Delay, d1		11.0								7.7	7.2	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								1.5	0.4	
Delay (s)		11.5								9.2	7.7	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			8.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			46.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			34.9%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	15	173	0	0	0	0	0	915	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					4559						4461	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					4559						4461	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	15	173	0	0	0	0	0	915	185
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	68	0
Lane Group Flow (vph)	0	0	0	0	172	0	0	0	0	0	1032	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1519						2180	
v/s Ratio Prot					c0.04						c0.23	
v/s Ratio Perm												
v/c Ratio					0.11						0.47	
Uniform Delay, d1					10.4						7.6	
Progression Factor					0.90						1.00	
Incremental Delay, d2					0.1						0.7	
Delay (s)					9.5						8.4	
Level of Service					A						A	
Approach Delay (s)		0.0			9.5			0.0			8.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.33									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			34.9%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	777	254	0	0	0	0	0	0	242	729	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.96										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5554										4520	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5554										4520	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	777	254	0	0	0	0	0	0	242	729	0	
RTOR Reduction (vph)	0	83	0	0	0	0	0	0	0	0	44	0	
Lane Group Flow (vph)	0	948	0	0	0	0	0	0	0	0	927	0	
Turn Type		NA									Perm	NA	
Protected Phases		4									6		
Permitted Phases										6			
Actuated Green, G (s)		24.0									28.0		
Effective Green, g (s)		24.0									28.0		
Actuated g/C Ratio		0.40									0.47		
Clearance Time (s)		4.0									4.0		
Vehicle Extension (s)		3.0									3.0		
Lane Grp Cap (vph)		2221									2109		
v/s Ratio Prot		0.17											
v/s Ratio Perm											0.21		
v/c Ratio		0.43									0.44		
Uniform Delay, d1		13.0									10.7		
Progression Factor		0.33									1.00		
Incremental Delay, d2		0.5									0.7		
Delay (s)		4.9									11.4		
Level of Service		A									B		
Approach Delay (s)		4.9				0.0			0.0			11.4	
Approach LOS		A				A			A			B	
Intersection Summary													
HCM 2000 Control Delay		8.1			HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio		0.43											
Actuated Cycle Length (s)		60.0			Sum of lost time (s)					8.0			
Intersection Capacity Utilization		45.0%			ICU Level of Service					A			
Analysis Period (min)		15											
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	235	0	113	5	0	1	132	241	0	0	228	198
Sign Control	Stop		Stop		Stop		Free		Free		Free	
Grade	0%		0%		0%		0%		0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	235	0	113	5	0	1	132	241	0	0	228	198
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None						None					
Median storage (veh)												
Upstream signal (ft)												563
pX, platoon unblocked												
vC, conflicting volume	712	832	213	732	931	120	426			241		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	712	832	213	732	931	120	426			241		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	19	100	86	98	100	100	88			100		
cM capacity (veh/h)	290	268	792	241	234	908	1130			1323		
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	235	113	132	120	120	152	274					
Volume Left	235	0	132	0	0	0	0					
Volume Right	0	113	0	0	0	0	198					
cSH	290	792	1130	1700	1700	1700	1700					
Volume to Capacity	0.81	0.14	0.12	0.07	0.07	0.09	0.16					
Queue Length 95th (ft)	164	12	10	0	0	0	0					
Control Delay (s)	54.2	10.3	8.6	0.0	0.0	0.0	0.0					
Lane LOS	F	B	A									
Approach Delay (s)	39.9			3.0	0.0							
Approach LOS	E											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service		H					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	141	77	49	466	314	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1718		1770	1863	1863	1583
Flt Permitted	0.97		0.57	1.00	1.00	1.00
Satd. Flow (perm)	1718		1061	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	141	77	49	466	314	53
RTOR Reduction (vph)	39	0	0	0	0	18
Lane Group Flow (vph)	179	0	49	466	314	35
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	10.7		35.7	35.7	35.7	35.7
Effective Green, g (s)	10.7		35.7	35.7	35.7	35.7
Actuated g/C Ratio	0.20		0.66	0.66	0.66	0.66
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	337		696	1222	1222	1038
v/s Ratio Prot	c0.10			c0.25	0.17	
v/s Ratio Perm			0.05			0.02
v/c Ratio	0.53		0.07	0.38	0.26	0.03
Uniform Delay, d1	19.6		3.4	4.3	3.9	3.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6		0.2	0.9	0.5	0.1
Delay (s)	21.2		3.6	5.2	4.4	3.3
Level of Service	C		A	A	A	A
Approach Delay (s)	21.2			5.0	4.2	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			8.0	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.42			
Actuated Cycle Length (s)			54.4	Sum of lost time (s)		8.0
Intersection Capacity Utilization			43.7%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	854	118	0	0	0	0	464	269	4	241	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.94			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4965						3344			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4965						3344			1840	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	854	118	0	0	0	0	464	269	4	241	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	72	0	0	0	0
Lane Group Flow (vph)	0	1149	0	0	0	0	0	661	0	0	245	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1114			613	
v/s Ratio Prot		c0.23						c0.20				
v/s Ratio Perm											0.13	
v/c Ratio		0.47						0.59			0.40	
Uniform Delay, d1		7.6						12.5			11.5	
Progression Factor		1.00						1.00			1.27	
Incremental Delay, d2		0.7						2.3			1.9	
Delay (s)		8.3						14.8			16.6	
Level of Service		A						B			B	
Approach Delay (s)		8.3			0.0			14.8			16.6	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		51.4%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	217	80	478	134	550	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2794	1297		3154				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2794	1297		3154				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	217	80	478	134	550	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	63	63	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	463	186	0	684	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1365	634		1051				
v/s Ratio Prot					c0.17			c0.22				
v/s Ratio Perm						0.14						
v/c Ratio					0.34	0.29		0.65				
Uniform Delay, d1					7.0	6.9		12.8				
Progression Factor					1.00	1.00		0.72				
Incremental Delay, d2					0.7	1.2		2.6				
Delay (s)					7.7	8.0		11.8				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.8			11.8			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.7				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			49.8%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	758	0	0	0	0	0	908	176	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5728						4465				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5728						4465				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	758	0	0	0	0	0	908	176	0	0	0
RTOR Reduction (vph)	0	29	0	0	0	0	0	48	0	0	0	0
Lane Group Flow (vph)	0	847	0	0	0	0	0	1036	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2577						1786				
v/s Ratio Prot								c0.23				
v/s Ratio Perm		0.15										
v/c Ratio		0.33						0.58				
Uniform Delay, d1		10.7						14.1				
Progression Factor		0.69						1.00				
Incremental Delay, d2		0.3						1.4				
Delay (s)		7.7						15.4				
Level of Service		A						B				
Approach Delay (s)		7.7			0.0			15.4			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		70.9%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	44	332	5	1	252	309	9	1	3	340	2	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	44	332	5	1	252	309	9	1	3	340	2	46
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	381	253	309	13	388							
Volume Left (vph)	44	1	0	9	340							
Volume Right (vph)	5	0	309	3	46							
Hadj (s)	0.05	0.04	-0.67	0.03	0.14							
Departure Headway (s)	6.3	6.6	5.9	7.6	6.4							
Degree Utilization, x	0.67	0.47	0.51	0.03	0.69							
Capacity (veh/h)	381	520	588	378	388							
Control Delay (s)	20.9	14.1	13.7	10.8	22.7							
Approach Delay (s)	20.9	13.9		10.8	22.7							
Approach LOS	C	B		B	C							
Intersection Summary												
Delay			18.4									
Level of Service			C									
Intersection Capacity Utilization			70.7%	ICU Level of Service					C			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	160	44	57	200	39	31	493	45	87	787	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	174	48	62	217	42	34	536	49	95	855	175
RTOR Reduction (vph)	0	0	37	0	17	0	0	6	0	0	0	152
Lane Group Flow (vph)	195	174	11	62	242	0	34	579	0	95	855	23
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Effective Green, g (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Actuated g/C Ratio	0.13	0.23	0.23	0.07	0.17		0.04	0.37		0.10	0.43	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	450	814	364	125	585		72	1288		185	1529	207
v/s Ratio Prot	c0.06	0.05		0.04	c0.07		0.02	0.17		c0.05	c0.24	0.01
v/s Ratio Perm			0.01									
v/c Ratio	0.43	0.21	0.03	0.50	0.41		0.47	0.45		0.51	0.56	0.11
Uniform Delay, d1	28.3	22.1	21.1	31.7	26.3		33.2	16.9		30.0	15.1	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	3.1	0.5		4.8	1.1		2.4	1.5	0.2
Delay (s)	29.0	22.2	21.2	34.8	26.7		38.0	18.1		32.4	16.5	27.3
Level of Service	C	C	C	C	C		D	B		C	B	C
Approach Delay (s)		25.3			28.3			19.1			19.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			21.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			70.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			50.3%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	141	99	50	134	95	84	553	38	125	1101	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	153	108	54	146	103	91	601	41	136	1197	125
RTOR Reduction (vph)	0	87	0	0	88	0	0	0	25	0	0	61
Lane Group Flow (vph)	110	174	0	54	161	0	91	601	16	136	1197	64
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Effective Green, g (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Actuated g/C Ratio	0.12	0.19		0.07	0.15		0.09	0.39	0.39	0.10	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	635		125	481		296	1392	622	333	1430	640
v/s Ratio Prot	c0.06	c0.05		0.03	0.05		0.03	0.17		c0.04	c0.34	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.53	0.27		0.43	0.33		0.31	0.43	0.03	0.41	0.84	0.10
Uniform Delay, d1	26.9	22.4		28.8	24.9		27.8	14.4	12.0	27.5	17.4	12.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2		2.4	0.4		0.6	1.0	0.1	0.8	6.0	0.3
Delay (s)	29.5	22.6		31.2	25.3		28.4	15.3	12.1	28.3	23.4	12.3
Level of Service	C	C		C	C		C	B	B	C	C	B
Approach Delay (s)		24.6			26.4			16.8			22.9	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			21.9				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			64.8				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			59.4%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Commercial Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	27	17	201	41	43	21	5	31	90	93
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	27	17	201	41	43	21	5	31	90	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	242			101			408	412	50	356	404	121
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	242			101			408	412	50	356	404	121
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			89	96	100	94	83	90
cM capacity (veh/h)	1322			1489			401	513	1007	542	518	908
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	64	118	142	69	31	60	123				
Volume Left	24	0	17	0	43	31	0	0				
Volume Right	0	27	0	41	5	0	0	93				
cSH	1322	1700	1489	1700	451	542	518	767				
Volume to Capacity	0.02	0.04	0.01	0.08	0.15	0.06	0.12	0.16				
Queue Length 95th (ft)	1	0	1	0	13	5	10	14				
Control Delay (s)	3.1	0.0	1.2	0.0	14.4	12.1	12.9	10.6				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.5		0.5		14.4	11.4						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.7									
Intersection Capacity Utilization			33.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	559	36	0	0	0	0	78	19	52	197	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5036						3435		1770	5085	
Flt Permitted		1.00						1.00		0.69	1.00	
Satd. Flow (perm)		5036						3435		1287	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	10	559	36	0	0	0	0	78	19	52	197	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	596	0	0	0	0	0	83	0	52	197	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		45.5						19.5		19.5	19.5	
Effective Green, g (s)		45.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.61						0.26		0.26	0.26	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3055						893		334	1322	
v/s Ratio Prot								0.02			0.04	
v/s Ratio Perm		0.12								c0.04		
v/c Ratio		0.19						0.09		0.16	0.15	
Uniform Delay, d1		6.6						21.0		21.4	21.4	
Progression Factor		1.00						1.02		0.60	0.61	
Incremental Delay, d2		0.1						0.2		1.0	0.2	
Delay (s)		6.7						21.7		13.8	13.4	
Level of Service		A						C		B	B	
Approach Delay (s)		6.7			0.0			21.7			13.5	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		10.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.18										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		30.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↔↔	↔		↔	↔			↔↔
Volume (vph)	0	0	0	103	270	258	9	22	69	0	0	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3491	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.66	1.00			1.00
Satd. Flow (perm)					3491	1583		1233	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	103	270	258	9	22	69	0	0	142
RTOR Reduction (vph)	0	0	0	0	0	207	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	373	51	0	31	69	0	0	142
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					14.8	14.8		51.2	51.2			51.2
Effective Green, g (s)					14.8	14.8		51.2	51.2			51.2
Actuated g/C Ratio					0.20	0.20		0.68	0.68			0.68
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					688	312		841	1271			2415
v/s Ratio Prot									0.04			c0.04
v/s Ratio Perm					0.11	0.03		0.03				
v/c Ratio					0.54	0.16		0.04	0.05			0.06
Uniform Delay, d1					27.1	25.0		3.9	3.9			3.9
Progression Factor					0.83	0.44		0.55	0.55			0.87
Incremental Delay, d2					0.9	0.2		0.1	0.1			0.0
Delay (s)					23.2	11.1		2.2	2.2			3.5
Level of Service					C	B		A	A			A
Approach Delay (s)		0.0			18.3				2.2			3.5
Approach LOS		A			B				A			A
Intersection Summary												
HCM 2000 Control Delay			13.5		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.17									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			30.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	45
RTOR Reduction (vph)	14
Lane Group Flow (vph)	31
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	51.2
Effective Green, g (s)	51.2
Actuated g/C Ratio	0.68
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1080
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.03
Uniform Delay, d1	3.9
Progression Factor	0.97
Incremental Delay, d2	0.0
Delay (s)	3.8
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	268	36	44	581	36	139	148	14	40	83	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4995		1770	5041		1770	1839		1770	3539	1583
Flt Permitted	0.32	1.00		0.56	1.00		0.70	1.00		0.65	1.00	1.00
Satd. Flow (perm)	596	4995		1042	5041		1304	1839		1219	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	268	36	44	581	36	139	148	14	40	83	75
RTOR Reduction (vph)	0	28	0	0	13	0	0	3	0	0	0	26
Lane Group Flow (vph)	42	276	0	44	604	0	139	159	0	40	83	49
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.1	16.1		16.1	16.1		49.4	49.4		49.4	49.4	49.4
Effective Green, g (s)	16.1	16.1		16.1	16.1		49.4	49.4		49.4	49.4	49.4
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.66	0.66		0.66	0.66	0.66
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	127	1072		223	1082		858	1211		802	2331	1042
v/s Ratio Prot		0.06			c0.12			0.09			0.02	
v/s Ratio Perm	0.07			0.04			c0.11			0.03		0.03
v/c Ratio	0.33	0.26		0.20	0.56		0.16	0.13		0.05	0.04	0.05
Uniform Delay, d1	24.9	24.5		24.2	26.3		4.9	4.8		4.5	4.5	4.5
Progression Factor	1.00	1.00		1.00	1.00		0.65	0.64		1.00	1.00	1.00
Incremental Delay, d2	1.5	0.1		0.4	0.6		0.4	0.2		0.1	0.0	0.1
Delay (s)	26.4	24.6		24.6	26.9		3.6	3.3		4.6	4.5	4.6
Level of Service	C	C		C	C		A	A		A	A	A
Approach Delay (s)		24.8			26.7			3.4			4.6	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			18.7			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			75.0			Sum of lost time (s)			9.5			
Intersection Capacity Utilization			43.2%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	139	772	410	27	79	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5427	4534		2959	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5427	4534		2959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	772	410	27	79	59
RTOR Reduction (vph)	65	34	6	0	0	0
Lane Group Flow (vph)	60	752	431	0	138	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	55.0	55.0	24.0		21.0	
Effective Green, g (s)	55.0	55.0	24.0		21.0	
Actuated g/C Ratio	0.48	0.48	0.21		0.18	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	616	2595	946		540	
v/s Ratio Prot	0.05	c0.14	c0.09		c0.05	
v/s Ratio Perm						
v/c Ratio	0.10	0.29	0.46		0.26	
Uniform Delay, d1	16.4	18.2	39.8		40.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.3	0.3	1.6		0.3	
Delay (s)	16.7	18.5	41.4		40.5	
Level of Service	B	B	D		D	
Approach Delay (s)		18.2	41.4		40.5	
Approach LOS		B	D		D	
Intersection Summary						
HCM 2000 Control Delay			27.1		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.32			
Actuated Cycle Length (s)			115.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			68.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	177	214	37	488	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2895	1297	1290	5430				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2895	1297	1290	5430				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	177	214	37	488	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	46	61	19	8	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	223	61	14	484	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					57.5	57.5	48.0	48.0				
Effective Green, g (s)					57.5	57.5	48.0	48.0				
Actuated g/C Ratio					0.50	0.50	0.42	0.42				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1447	648	538	2266				
v/s Ratio Prot					0.08							
v/s Ratio Perm						0.05	0.01	0.09				
v/c Ratio					0.15	0.09	0.03	0.21				
Uniform Delay, d1					15.6	15.1	19.7	21.4				
Progression Factor					1.00	1.00	2.30	1.39				
Incremental Delay, d2					0.2	0.3	0.1	0.2				
Delay (s)					15.8	15.4	45.4	30.0				
Level of Service					B	B	D	C				
Approach Delay (s)		0.0			15.7			30.9			0.0	
Approach LOS		A			B			C			A	
Intersection Summary												
HCM 2000 Control Delay			24.4									
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			115.0									
Intersection Capacity Utilization			25.6%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	93	79	7	96	87	10	39	0	78	98	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	7	93	79	7	96	87	10	39	0	78	98	13
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	179	190	49	127	62							
Volume Left (vph)	7	7	10	78	0							
Volume Right (vph)	79	87	0	0	13							
Hadj (s)	-0.22	-0.23	0.07	0.34	-0.11							
Departure Headway (s)	4.5	4.5	5.2	5.8	5.3							
Degree Utilization, x	0.23	0.24	0.07	0.20	0.09							
Capacity (veh/h)	742	749	627	586	635							
Control Delay (s)	8.9	8.9	8.6	9.0	7.6							
Approach Delay (s)	8.9	8.9	8.6	8.6								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.8									
Level of Service			A									
Intersection Capacity Utilization			30.9%			ICU Level of Service			A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	4	4	9	29	34	4	123	8	32	209	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	4	4	9	29	34	4	123	8	32	209	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	398	420	112	310	423	66	224			131		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	398	420	112	310	423	66	224			131		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	99	94	97	100			98		
cM capacity (veh/h)	486	510	920	602	508	985	1342			1452		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	17	72	66	70	136	120						
Volume Left	9	9	4	0	32	0						
Volume Right	4	34	0	8	0	15						
cSH	553	676	1342	1700	1452	1700						
Volume to Capacity	0.03	0.11	0.00	0.04	0.02	0.07						
Queue Length 95th (ft)	2	9	0	0	2	0						
Control Delay (s)	11.7	11.0	0.5	0.0	1.9	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.7	11.0	0.2		1.0							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			25.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	4	45	41	18	130	9	40	223	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.95			0.94			0.99			0.97	
Flt Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1763			1744			3489			3413	
Flt Permitted	0.70	1.00			0.99			0.91			0.91	
Satd. Flow (perm)	1301	1763			1737			3193			3118	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	4	45	41	18	130	9	40	223	65
RTOR Reduction (vph)	0	12	0	0	24	0	0	5	0	0	29	0
Lane Group Flow (vph)	34	47	0	0	66	0	0	152	0	0	299	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	555	752			741			1447			1413	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.03				c0.04			0.05			c0.10	
v/c Ratio	0.06	0.06			0.09			0.11			0.21	
Uniform Delay, d1	12.7	12.7			12.8			11.8			12.4	
Progression Factor	1.00	1.00			1.00			1.00			0.52	
Incremental Delay, d2	0.2	0.2			0.2			0.1			0.3	
Delay (s)	12.9	12.8			13.1			11.9			6.8	
Level of Service	B	B			B			B			A	
Approach Delay (s)		12.8			13.1			11.9			6.8	
Approach LOS		B			B			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.7									
HCM 2000 Volume to Capacity ratio			0.15									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			33.2%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	705	136	75	0	0	0	0	138	234	422	342	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	705	136	75	0	0	0	0	138	234	422	342	0
RTOR Reduction (vph)	0	0	54	0	0	0	0	0	151	0	0	0
Lane Group Flow (vph)	352	489	21	0	0	0	0	138	83	422	342	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	20.6	20.6	20.6					26.5	26.5	14.4	44.4	
Effective Green, g (s)	20.6	20.6	20.6					26.5	26.5	14.4	44.4	
Actuated g/C Ratio	0.27	0.27	0.27					0.35	0.35	0.19	0.59	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	442	898	434					1250	559	659	1102	
v/s Ratio Prot	c0.22	0.15	0.01					0.04	0.05	c0.12	c0.18	
v/s Ratio Perm												
v/c Ratio	0.80	0.54	0.05					0.11	0.15	0.64	0.31	
Uniform Delay, d1	25.3	23.2	20.0					16.3	16.5	27.9	7.6	
Progression Factor	0.97	0.98	0.77					1.15	2.10	1.00	1.29	
Incremental Delay, d2	9.6	0.7	0.0					0.2	0.6	1.9	0.1	
Delay (s)	34.0	23.3	15.4					18.9	35.4	29.7	10.0	
Level of Service	C	C	B					B	D	C	B	
Approach Delay (s)		26.8			0.0			29.2			20.9	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			25.0		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.56									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				13.5			
Intersection Capacity Utilization			95.7%		ICU Level of Service				F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	430	198	661	22	147	0	0	365	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4503	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4503	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	430	198	661	22	147	0	0	365	44
RTOR Reduction (vph)	0	0	0	0	0	423	0	0	0	0	16	0
Lane Group Flow (vph)	0	0	0	430	198	238	22	147	0	0	393	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				27.0	27.0	27.0	7.6	40.0			28.4	
Effective Green, g (s)				27.0	27.0	27.0	7.6	40.0			28.4	
Actuated g/C Ratio				0.36	0.36	0.36	0.10	0.53			0.38	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				573	1146	513	161	1698			1705	
v/s Ratio Prot				c0.27	0.06	0.17	c0.01	0.05			c0.09	
v/s Ratio Perm												
v/c Ratio				0.75	0.17	0.46	0.14	0.09			0.23	
Uniform Delay, d1				21.0	16.4	18.4	30.7	8.6			15.9	
Progression Factor				1.00	1.00	1.00	0.54	0.48			1.00	
Incremental Delay, d2				5.5	0.1	0.7	0.3	0.1			0.3	
Delay (s)				26.5	16.5	19.1	16.9	4.2			16.2	
Level of Service				C	B	B	B	A			B	
Approach Delay (s)		0.0			21.2			5.8			16.2	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			18.7									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			75.0								12.0	
Intersection Capacity Utilization			95.7%									ICU Level of Service F
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	525	112	0	0	0	0	418	80	82	436	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.98						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5602						3109		1593	3185	
Flt Permitted		1.00						1.00		0.42	1.00	
Satd. Flow (perm)		5602						3109		704	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	525	112	0	0	0	0	418	80	82	436	0
RTOR Reduction (vph)	0	57	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	650	0	0	0	0	0	472	0	82	436	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.0						21.0		29.0	29.0	
Effective Green, g (s)		23.0						21.0		29.0	29.0	
Actuated g/C Ratio		0.38						0.35		0.48	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		2147						1088		399	1539	
v/s Ratio Prot		c0.12						c0.15		0.01	c0.14	
v/s Ratio Perm										0.09		
v/c Ratio		0.30						0.43		0.21	0.28	
Uniform Delay, d1		12.9						14.9		10.5	9.3	
Progression Factor		1.00						1.00		0.45	0.43	
Incremental Delay, d2		0.1						1.3		0.2	0.4	
Delay (s)		13.0						16.2		5.0	4.5	
Level of Service		B						B		A	A	
Approach Delay (s)		13.0			0.0			16.2			4.6	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		51.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	94	296	63	94	370	0	0	408	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4435		1593	3185			4523	
Flt Permitted					0.99		0.48	1.00			1.00	
Satd. Flow (perm)					4435		809	3185			4523	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	94	296	63	94	370	0	0	408	35
RTOR Reduction (vph)	0	0	0	0	36	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	417	0	94	370	0	0	426	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1921		402	1380			1356	
v/s Ratio Prot					c0.09		0.02	c0.12			c0.09	
v/s Ratio Perm							0.09					
v/c Ratio					0.22		0.23	0.27			0.31	
Uniform Delay, d1					10.6		11.0	10.9			16.2	
Progression Factor					1.00		0.27	0.31			1.89	
Incremental Delay, d2					0.3		1.3	0.4			0.6	
Delay (s)					10.9		4.2	3.9			31.2	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			10.9			3.9			31.2	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			51.6%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	273	86	1	268	91	0	358	26	0	500	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3071			3064			3153			3124	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		2924			2924			3153			3124	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	273	86	1	268	91	0	358	26	0	500	73
RTOR Reduction (vph)	0	49	0	0	56	0	0	9	0	0	19	0
Lane Group Flow (vph)	0	313	0	0	304	0	0	375	0	0	554	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.5			21.5			27.5			27.5	
Effective Green, g (s)		21.5			21.5			27.5			27.5	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1047			1047			1445			1431	
v/s Ratio Prot								0.12			c0.18	
v/s Ratio Perm		c0.11			0.10							
v/c Ratio		0.30			0.29			0.26			0.39	
Uniform Delay, d1		13.8			13.8			10.0			10.7	
Progression Factor		1.00			1.00			1.51			1.00	
Incremental Delay, d2		0.7			0.7			0.4			0.8	
Delay (s)		14.6			14.5			15.5			11.5	
Level of Service		B			B			B			B	
Approach Delay (s)		14.6			14.5			15.5			11.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.35										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		41.0%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	12	52	0	0	0	0	12	18	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	12	52	0	0	0	0	12	18	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	52			41			128	110	34	110	117	52
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52			41			128	110	34	110	117	52
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	98	99
cM capacity (veh/h)	1554			1568			816	775	1040	864	767	1016
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	64	21	19								
Volume Left	0	12	12	0								
Volume Right	15	0	0	10								
cSH	1700	1568	820	881								
Volume to Capacity	0.02	0.01	0.03	0.02								
Queue Length 95th (ft)	0	1	2	2								
Control Delay (s)	0.0	1.4	9.5	9.2								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.4									
Approach LOS			A									
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			20.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	27	13	20	30	0	0	0	0	6	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	27	13	20	30	0	0	0	0	6	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	30			40			107	104	34	104	110	30
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	30			40			107	104	34	104	110	30
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1583			1570			859	777	1040	868	770	1044
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	40	50	8	4								
Volume Left	0	20	6	0								
Volume Right	13	0	0	2								
cSH	1700	1570	847	906								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	3.0	9.3	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	3.0	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			19.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	51	151	130	45	87	127
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	51	151	130	45	87	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		272	102	253	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		272	102	253	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		75	94	86	88
cM capacity (veh/h)	1623		524	763	630	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	51	151	175	87	127	
Volume Left	51	0	130	0	0	
Volume Right	0	151	0	0	127	
cSH	1623	1700	570	630	1085	
Volume to Capacity	0.03	0.09	0.31	0.14	0.12	
Queue Length 95th (ft)	2	0	32	12	10	
Control Delay (s)	7.3	0.0	14.1	11.6	8.8	
Lane LOS	A		B	B	A	
Approach Delay (s)	1.8		14.1	9.9		
Approach LOS			B	A		
Intersection Summary						
Average Delay	8.4					
Intersection Capacity Utilization	26.2%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑	↑↑			
Volume (vph)	51	214	0	0	0	0	0	536	1207	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4533						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4533						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	214	0	0	0	0	0	536	1207	0	0	0
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	539	0	0	0
Lane Group Flow (vph)	0	237	0	0	0	0	0	536	668	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		27.0						23.0	29.0			
Effective Green, g (s)		27.0						23.0	29.0			
Actuated g/C Ratio		0.45						0.38	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2039						1754	1212			
v/s Ratio Prot								0.12				
v/s Ratio Perm		0.05							c0.27			
v/c Ratio		0.12						0.31	0.55			
Uniform Delay, d1		9.6						12.9	10.9			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						0.5	1.8			
Delay (s)		9.7						13.4	12.7			
Level of Service		A						B	B			
Approach Delay (s)		9.7			0.0			12.9			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			10.0				
Intersection Capacity Utilization		93.4%			ICU Level of Service			F				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	260	366	441	0	0	0	0	194	33	66	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4713						1826		1770	1863	
Flt Permitted		0.99						1.00		0.59	1.00	
Satd. Flow (perm)		4713						1826		1107	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	260	366	441	0	0	0	0	194	33	66	99	0
RTOR Reduction (vph)	0	170	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	897	0	0	0	0	0	219	0	66	99	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2167						718		435	732	
v/s Ratio Prot								c0.12			0.05	
v/s Ratio Perm		0.19								0.06		
v/c Ratio		0.41						0.31		0.15	0.14	
Uniform Delay, d1		13.5						15.7		14.7	14.6	
Progression Factor		1.00						1.00		0.68	0.69	
Incremental Delay, d2		0.6						1.1		0.7	0.4	
Delay (s)		14.1						16.8		10.7	10.4	
Level of Service		B						B		B	B	
Approach Delay (s)		14.1			0.0			16.8			10.6	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.1						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		69.6%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	279	50	256	238	0	0	188	1262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.64	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1071	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	279	50	256	238	0	0	188	1262
RTOR Reduction (vph)	0	0	0	0	0	37	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	279	13	256	238	0	0	188	1262
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	635	994			994	1425
v/s Ratio Prot				0.00	0.17			0.14			0.11	
v/s Ratio Perm						0.01	0.24					c0.89
v/c Ratio				0.00	0.64	0.04	0.40	0.24			0.19	0.89
Uniform Delay, d1				20.6	24.6	20.7	8.2	7.2			7.0	0.0
Progression Factor				1.00	1.00	1.00	1.14	1.14			1.00	1.00
Incremental Delay, d2				0.0	7.1	0.2	1.8	0.5			0.4	8.4
Delay (s)				20.6	31.7	20.9	11.1	8.8			7.4	8.4
Level of Service				C	C	C	B	A			A	A
Approach Delay (s)		0.0			30.0			10.0			8.3	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.8									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 11.0
Intersection Capacity Utilization			69.6%									ICU Level of Service C
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	442	1123	0	0	0	0	265	67	20	255	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3967	1226					1631			1670	
Flt Permitted		1.00	1.00					1.00			0.97	
Satd. Flow (perm)		3967	1226					1631			1625	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	32	442	1123	0	0	0	0	265	67	20	255	0
RTOR Reduction (vph)	0	359	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	677	561	0	0	0	0	317	0	0	275	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		19.0	60.0					32.0			32.0	
Effective Green, g (s)		19.0	60.0					32.0			32.0	
Actuated g/C Ratio		0.32	1.00					0.53			0.53	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1256	1226					869			866	
v/s Ratio Prot		0.17						0.19				
v/s Ratio Perm			c0.46								0.17	
v/c Ratio		0.54	0.46					0.36			0.32	
Uniform Delay, d1		16.9	0.0					8.1			7.9	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		1.7	1.2					1.2			1.0	
Delay (s)		18.6	1.2					9.3			8.8	
Level of Service		B	A					A			A	
Approach Delay (s)		12.5			0.0			9.3			8.8	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.5									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			60.0								9.0	
Intersection Capacity Utilization			60.3%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	416	17	0	0	0	0	0	0	548	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5055								1610	3282	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5055								1610	3282	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	416	17	0	0	0	0	0	0	548	142	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	119	119	0
Lane Group Flow (vph)	0	424	0	0	0	0	0	0	0	155	297	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1569	
v/s Ratio Prot		c0.08										
v/s Ratio Perm										c0.10	0.09	
v/c Ratio		0.24								0.20	0.19	
Uniform Delay, d1		10.7								6.9	6.9	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.3								0.6	0.3	
Delay (s)		11.0								7.5	7.2	
Level of Service		B								A	A	
Approach Delay (s)		11.0			0.0			0.0			7.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.7			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.22										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		30.1%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	31	164	0	0	0	0	0	654	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4541						4410	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4541						4410	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	31	164	0	0	0	0	0	654	210
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	107	0
Lane Group Flow (vph)	0	0	0	0	174	0	0	0	0	0	757	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1513						2156	
v/s Ratio Prot					c0.04						c0.17	
v/s Ratio Perm												
v/c Ratio					0.12						0.35	
Uniform Delay, d1					10.4						7.1	
Progression Factor					1.08						1.00	
Incremental Delay, d2					0.1						0.5	
Delay (s)					11.4						7.5	
Level of Service					B						A	
Approach Delay (s)		0.0			11.4			0.0			7.5	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			30.1%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	331	193	0	0	0	0	0	0	121	622	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.94										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5448										4540	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5448										4540	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	331	193	0	0	0	0	0	0	121	622	0	
RTOR Reduction (vph)	0	119	0	0	0	0	0	0	0	0	48	0	
Lane Group Flow (vph)	0	405	0	0	0	0	0	0	0	0	695	0	
Turn Type		NA								Perm	NA		
Protected Phases		4								6			
Permitted Phases										6			
Actuated Green, G (s)		23.0								29.0			
Effective Green, g (s)		23.0								29.0			
Actuated g/C Ratio		0.38								0.48			
Clearance Time (s)		4.0								4.0			
Vehicle Extension (s)		3.0								3.0			
Lane Grp Cap (vph)		2088								2194			
v/s Ratio Prot		c0.07											
v/s Ratio Perm										0.15			
v/c Ratio		0.19								0.32			
Uniform Delay, d1		12.3								9.5			
Progression Factor		0.53								1.00			
Incremental Delay, d2		0.2								0.4			
Delay (s)		6.7								9.8			
Level of Service		A								A			
Approach Delay (s)		6.7				0.0		0.0		9.8			
Approach LOS		A				A		A		A			
Intersection Summary													
HCM 2000 Control Delay		8.6			HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio		0.26											
Actuated Cycle Length (s)		60.0			Sum of lost time (s)					8.0			
Intersection Capacity Utilization		38.3%			ICU Level of Service					A			
Analysis Period (min)		15											
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	134	0	71	2	0	0	179	227	0	0	201	164	
Sign Control	Stop		Stop		Stop		Free		Free		Free		
Grade	0%		0%		0%		0%		0%		0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly flow rate (vph)	134	0	71	2	0	0	179	227	0	0	201	164	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None						None						
Median storage (veh)													
Upstream signal (ft)												563	
pX, platoon unblocked													
vC, conflicting volume	754	868	182	756	950	114	365						227
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	754	868	182	756	950	114	365						227
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1						4.1
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2						2.2
p0 queue free %	49	100	91	99	100	100	85						100
cM capacity (veh/h)	263	246	829	240	220	918	1190						1339
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2						
Volume Total	134	71	179	114	114	134	231						
Volume Left	134	0	179	0	0	0	0						
Volume Right	0	71	0	0	0	0	164						
cSH	263	829	1190	1700	1700	1700	1700						
Volume to Capacity	0.51	0.09	0.15	0.07	0.07	0.08	0.14						
Queue Length 95th (ft)	67	7	13	0	0	0	0						
Control Delay (s)	32.0	9.8	8.6	0.0	0.0	0.0	0.0						
Lane LOS	D	A	A										
Approach Delay (s)	24.3	3.8		0.0									
Approach LOS	C												
Intersection Summary													
Average Delay			Err										
Intersection Capacity Utilization			Err%		ICU Level of Service				H				
Analysis Period (min)			15										

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	49	65	58	322	314	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1683		1770	1863	1863	1583
Flt Permitted	0.98		0.57	1.00	1.00	1.00
Satd. Flow (perm)	1683		1061	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	49	65	58	322	314	60
RTOR Reduction (vph)	58	0	0	0	0	16
Lane Group Flow (vph)	56	0	58	322	314	44
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	6.2		39.9	39.9	39.9	39.9
Effective Green, g (s)	6.2		39.9	39.9	39.9	39.9
Actuated g/C Ratio	0.11		0.74	0.74	0.74	0.74
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	192		782	1374	1374	1167
v/s Ratio Prot	c0.03			c0.17	0.17	
v/s Ratio Perm			0.05			0.03
v/c Ratio	0.29		0.07	0.23	0.23	0.04
Uniform Delay, d1	21.9		2.0	2.3	2.2	1.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9		0.2	0.4	0.4	0.1
Delay (s)	22.8		2.2	2.7	2.6	2.0
Level of Service	C		A	A	A	A
Approach Delay (s)	22.8			2.6	2.5	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			5.2	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.24			
Actuated Cycle Length (s)			54.1	Sum of lost time (s)		8.0
Intersection Capacity Utilization			36.6%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	219	555	126	0	0	0	0	247	122	2	202	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.95			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3364			1862	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		4919						3364			1856	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	219	555	126	0	0	0	0	247	122	2	202	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	81	0	0	0	0
Lane Group Flow (vph)	0	850	0	0	0	0	0	288	0	0	204	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1121			618	
v/s Ratio Prot		c0.17						0.09				
v/s Ratio Perm											c0.11	
v/c Ratio		0.35						0.26			0.33	
Uniform Delay, d1		7.1						10.9			11.2	
Progression Factor		1.00						1.00			1.21	
Incremental Delay, d2		0.4						0.6			1.4	
Delay (s)		7.5						11.5			15.0	
Level of Service		A						B			B	
Approach Delay (s)		7.5			0.0			11.5			15.0	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		9.5						HCM 2000 Level of Service		A		
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		36.9%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	185	66	567	116	377	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.92	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2760	1297		3148				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2760	1297		3148				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	185	66	567	116	377	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	128	128	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	407	155	0	493	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1349	634		1049				
v/s Ratio Prot					c0.15			c0.16				
v/s Ratio Perm						0.12						
v/c Ratio					0.30	0.24		0.47				
Uniform Delay, d1					6.9	6.7		11.9				
Progression Factor					1.00	1.00		0.88				
Incremental Delay, d2					0.6	0.9		1.5				
Delay (s)					7.5	7.6		11.9				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.5			11.9			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.2		HCM 2000 Level of Service						A	
HCM 2000 Volume to Capacity ratio			0.37									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)						8.0	
Intersection Capacity Utilization			48.0%		ICU Level of Service						A	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	324	0	0	0	0	0	843	84	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5708						4515				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5708						4515				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	324	0	0	0	0	0	843	84	0	0	0
RTOR Reduction (vph)	0	36	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	372	0	0	0	0	0	907	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2568						1806				
v/s Ratio Prot								c0.20				
v/s Ratio Perm		0.07										
v/c Ratio		0.14						0.50				
Uniform Delay, d1		9.7						13.5				
Progression Factor		1.17						1.00				
Incremental Delay, d2		0.1						1.0				
Delay (s)		11.5						14.5				
Level of Service		B						B				
Approach Delay (s)		11.5			0.0			14.5			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.31										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		67.3%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	226	4	4	279	190	7	2	2	267	4	103
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	21	226	4	4	279	190	7	2	2	267	4	103
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	251	283	190	11	374							
Volume Left (vph)	21	4	0	7	267							
Volume Right (vph)	4	0	190	2	103							
Hadj (s)	0.04	0.04	-0.67	0.05	0.01							
Departure Headway (s)	5.9	6.1	5.4	6.7	5.7							
Degree Utilization, x	0.41	0.48	0.29	0.02	0.60							
Capacity (veh/h)	572	563	634	442	596							
Control Delay (s)	13.0	13.5	9.4	9.8	16.8							
Approach Delay (s)	13.0	11.8		9.8	16.8							
Approach LOS	B	B		A	C							
Intersection Summary												
Delay			13.8									
Level of Service			B									
Intersection Capacity Utilization			62.5%	ICU Level of Service					B			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	197	69	23	202	64	75	840	36	40	432	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	214	75	25	220	70	82	913	39	43	470	255
RTOR Reduction (vph)	0	0	52	0	33	0	0	2	0	0	0	215
Lane Group Flow (vph)	299	214	23	25	257	0	82	950	0	43	470	40
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Effective Green, g (s)	11.7	22.4	22.4	2.7	13.4		7.1	28.1		4.5	25.5	11.7
Actuated g/C Ratio	0.16	0.30	0.30	0.04	0.18		0.10	0.38		0.06	0.35	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	544	1075	481	64	620		170	1340		108	1224	251
v/s Ratio Prot	c0.09	0.06		0.01	c0.08		c0.05	c0.27		0.02	0.13	0.03
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.20	0.05	0.39	0.41		0.48	0.71		0.40	0.38	0.16
Uniform Delay, d1	28.6	19.0	18.1	34.7	26.7		31.6	19.3		33.3	18.2	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	3.9	0.5		2.2	3.2		2.4	0.9	0.3
Delay (s)	29.7	19.1	18.2	38.6	27.1		33.7	22.5		35.7	19.1	27.1
Level of Service	C	B	B	D	C		C	C		D	B	C
Approach Delay (s)		24.4			28.0			23.4			22.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			23.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			73.7			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			56.5%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	173	76	33	171	82	107	817	42	75	306	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	188	83	36	186	89	116	888	46	82	333	37
RTOR Reduction (vph)	0	50	0	0	62	0	0	0	28	0	0	23
Lane Group Flow (vph)	101	221	0	36	213	0	116	888	18	82	333	14
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Effective Green, g (s)	7.4	15.7		2.9	11.2		6.0	26.0	26.0	5.4	25.4	25.4
Actuated g/C Ratio	0.11	0.24		0.04	0.17		0.09	0.39	0.39	0.08	0.38	0.38
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	198	803		77	571		312	1394	623	280	1361	609
v/s Ratio Prot	c0.06	0.07		0.02	c0.06		c0.03	c0.25		0.02	0.09	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.51	0.27		0.47	0.37		0.37	0.64	0.03	0.29	0.24	0.02
Uniform Delay, d1	27.6	20.5		30.8	24.3		28.2	16.2	12.3	28.5	13.8	12.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2	0.2		4.4	0.4		0.7	2.2	0.1	0.6	0.4	0.1
Delay (s)	29.8	20.7		35.2	24.7		29.0	18.4	12.3	29.1	14.2	12.7
Level of Service	C	C		D	C		C	B	B	C	B	B
Approach Delay (s)		23.2			25.9			19.3			16.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.4			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			66.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			51.8%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Commercial Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	273	22	14	124	105	44	132	28	45	57	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	52	273	22	14	124	105	44	132	28	45	57	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	229			295			544	645	148	539	604	114
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	229			295			544	645	148	539	604	114
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			87	64	97	84	85	96
cM capacity (veh/h)	1336			1263			347	370	873	287	391	916
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	188	158	76	167	204	45	38	56				
Volume Left	52	0	14	0	44	45	0	0				
Volume Right	0	22	0	105	28	0	0	37				
cSH	1336	1700	1263	1700	396	287	391	629				
Volume to Capacity	0.04	0.09	0.01	0.10	0.52	0.16	0.10	0.09				
Queue Length 95th (ft)	3	0	1	0	71	14	8	7				
Control Delay (s)	2.4	0.0	1.5	0.0	23.4	19.9	15.2	11.3				
Lane LOS	A		A		C	C	C	B				
Approach Delay (s)	1.3		0.5		23.4	15.1						
Approach LOS					C	C						
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			44.7%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	738	29	0	0	0	0	246	28	103	107	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5054						3485		1770	5085	
Flt Permitted		1.00						1.00		0.53	1.00	
Satd. Flow (perm)		5054						3485		995	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	738	29	0	0	0	0	246	28	103	107	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	771	0	0	0	0	0	265	0	103	107	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		60.5						19.5		19.5	19.5	
Effective Green, g (s)		60.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.67						0.22		0.22	0.22	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3397						755		215	1101	
v/s Ratio Prot								0.08			0.02	
v/s Ratio Perm		0.15								c0.10		
v/c Ratio		0.23						0.35		0.48	0.10	
Uniform Delay, d1		5.7						29.9		30.8	28.2	
Progression Factor		1.00						1.00		0.87	0.86	
Incremental Delay, d2		0.2						1.3		7.5	0.2	
Delay (s)		5.9						31.2		34.2	24.4	
Level of Service		A						C		C	C	
Approach Delay (s)		5.9			0.0			31.2			29.2	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay		15.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.29										
Actuated Cycle Length (s)		90.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		40.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	30	145	274	12	35	218	0	0	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.65	1.00			1.00
Satd. Flow (perm)					3509	1583		1203	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	30	145	274	12	35	218	0	0	168
RTOR Reduction (vph)	0	0	0	0	0	241	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	175	33	0	47	218	0	0	168
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					10.8	10.8		70.2	70.2			70.2
Effective Green, g (s)					10.8	10.8		70.2	70.2			70.2
Actuated g/C Ratio					0.12	0.12		0.78	0.78			0.78
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					421	189		938	1453			2760
v/s Ratio Prot									c0.12			0.05
v/s Ratio Perm					0.05	0.02		0.04				
v/c Ratio					0.42	0.17		0.05	0.15			0.06
Uniform Delay, d1					36.7	35.6		2.3	2.5			2.3
Progression Factor					1.01	1.97		0.10	0.48			1.00
Incremental Delay, d2					0.7	0.4		0.1	0.2			0.0
Delay (s)					37.7	70.5		0.3	1.4			2.3
Level of Service					D	E		A	A			A
Approach Delay (s)		0.0			57.7				1.2			2.3
Approach LOS		A			E				A			A
Intersection Summary												
HCM 2000 Control Delay			29.1		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.19									
Actuated Cycle Length (s)			90.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			40.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	34
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	34
RTOR Reduction (vph)	7
Lane Group Flow (vph)	27
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	70.2
Effective Green, g (s)	70.2
Actuated g/C Ratio	0.78
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1234
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.02
Uniform Delay, d1	2.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	2.2
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	705	66	36	325	35	215	216	48	53	95	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.97		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5020		1770	5011		1770	1812		1770	3539	1583
Satd. Flow (perm)	985	5020		589	5011		1290	1812		994	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	94	705	66	36	325	35	215	216	48	53	95	60
RTOR Reduction (vph)	0	13	0	0	15	0	0	9	0	0	0	34
Lane Group Flow (vph)	94	758	0	36	345	0	215	255	0	53	95	26
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Effective Green, g (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	451	2303		270	2299		553	778		426	1519	679
v/s Ratio Prot		c0.15			0.07			0.14			0.03	
v/s Ratio Perm	0.10			0.06			c0.17			0.05		0.02
v/c Ratio	0.21	0.33		0.13	0.15		0.39	0.33		0.12	0.06	0.04
Uniform Delay, d1	13.8	14.7		13.3	13.4		16.6	16.1		14.6	14.2	14.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.4		1.0	0.1		2.1	1.1		0.1	0.0	0.0
Delay (s)	14.8	15.0		14.3	13.5		18.7	17.2		14.7	14.2	14.1
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		15.0			13.6			17.9			14.3	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.4			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		85.0			Sum of lost time (s)			9.5				
Intersection Capacity Utilization		51.9%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	158	500	1128	35	61	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5415	4556		2984	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5415	4556		2984	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	158	500	1128	35	61	33
RTOR Reduction (vph)	90	65	3	0	0	0
Lane Group Flow (vph)	36	467	1160	0	94	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	24.0	24.0	29.2		16.8	
Effective Green, g (s)	24.0	24.0	29.2		16.8	
Actuated g/C Ratio	0.28	0.28	0.34		0.20	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	364	1528	1565		589	
v/s Ratio Prot	0.03	c0.09	c0.25		c0.03	
v/s Ratio Perm						
v/c Ratio	0.10	0.31	0.74		0.16	
Uniform Delay, d1	22.5	24.0	24.6		28.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.5	0.5	3.2		0.1	
Delay (s)	23.0	24.5	27.8		28.4	
Level of Service	C	C	C		C	
Approach Delay (s)		24.2	27.8		28.4	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			26.6		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.45			
Actuated Cycle Length (s)			85.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			75.9%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	216	696	29	1450	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2769	1297	1290	5431				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2769	1297	1290	5431				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	216	696	29	1450	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	2	16	12	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	562	332	14	1444	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					31.3	31.3	44.2	44.2				
Effective Green, g (s)					31.3	31.3	44.2	44.2				
Actuated g/C Ratio					0.37	0.37	0.52	0.52				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1019	477	670	2824				
v/s Ratio Prot					0.20							
v/s Ratio Perm						c0.26	0.01	0.27				
v/c Ratio					0.55	0.70	0.02	0.51				
Uniform Delay, d1					21.3	22.8	9.9	13.3				
Progression Factor					1.00	1.00	0.03	0.24				
Incremental Delay, d2					0.6	4.4	0.0	0.5				
Delay (s)					21.9	27.2	0.3	3.8				
Level of Service					C	C	A	A				
Approach Delay (s)		0.0			23.9			3.7			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.4									
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			85.0									
Intersection Capacity Utilization			61.6%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	22	139	84	13	134	109	49	238	17	88	126	20							
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
Hourly flow rate (vph)	22	139	84	13	134	109	49	238	17	88	126	20							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	245	256	304	151	83														
Volume Left (vph)	22	13	49	88	0														
Volume Right (vph)	84	109	17	0	20														
Hadj (s)	-0.15	-0.21	0.03	0.33	-0.13														
Departure Headway (s)	5.9	5.8	6.0	6.9	6.4														
Degree Utilization, x	0.40	0.41	0.51	0.29	0.15														
Capacity (veh/h)	554	563	555	477	508														
Control Delay (s)	12.8	12.8	15.0	11.4	9.3														
Approach Delay (s)	12.8	12.8	15.0	10.7															
Approach LOS	B	B	C	B															
Intersection Summary																			
Delay			13.0																
Level of Service			B																
Intersection Capacity Utilization			53.4%	ICU Level of Service		A													
Analysis Period (min)			15																

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	31	16	17	26	64	18	391	49	53	297	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	40	31	16	17	26	64	18	391	49	53	297	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	0.99	0.99	0.99	0.99	0.99		0.99					
vC, conflicting volume	728	896	165	738	888	220	330			440		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	702	872	133	712	863	220	300			440		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	88	98	94	90	92	99			95		
cM capacity (veh/h)	261	267	882	270	270	784	1244			1116		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	87	107	214	244	202	182						
Volume Left	40	17	18	0	53	0						
Volume Right	16	64	0	49	0	33						
cSH	302	444	1244	1700	1116	1700						
Volume to Capacity	0.29	0.24	0.01	0.14	0.05	0.11						
Queue Length 95th (ft)	29	23	1	0	4	0						
Control Delay (s)	21.6	15.7	0.8	0.0	2.5	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	21.6	15.7	0.4		1.3							
Approach LOS	C	C										
Intersection Summary												
Average Delay			4.1									
Intersection Capacity Utilization			44.9%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	133	28	10	118	117	69	371	12	43	271	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.97			0.94			1.00			0.98	
Flt Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1814			1739			3498			3432	
Flt Permitted	0.59	1.00			0.99			0.84			0.87	
Satd. Flow (perm)	1091	1814			1724			2968			3006	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	133	28	10	118	117	69	371	12	43	271	62
RTOR Reduction (vph)	0	10	0	0	44	0	0	3	0	0	22	0
Lane Group Flow (vph)	106	151	0	0	201	0	0	449	0	0	354	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	465	773			735			1345			1362	
v/s Ratio Prot		0.08										
v/s Ratio Perm	0.10				c0.12			c0.15			0.12	
v/c Ratio	0.23	0.19			0.27			0.33			0.26	
Uniform Delay, d1	13.7	13.4			14.0			13.2			12.7	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.1	0.6			0.9			0.7			0.5	
Delay (s)	14.8	14.0			14.9			13.9			13.2	
Level of Service	B	B			B			B			B	
Approach Delay (s)		14.3			14.9			13.9			13.2	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.9			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			75.0			Sum of lost time (s)			9.0			
Intersection Capacity Utilization			61.0%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1007	295	73	0	0	0	0	340	430	591	353	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3287	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3287	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1007	295	73	0	0	0	0	340	430	591	353	0
RTOR Reduction (vph)	0	0	48	0	0	0	0	0	159	0	0	0
Lane Group Flow (vph)	503	799	25	0	0	0	0	340	271	591	353	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	31.1	31.1	31.1					25.9	25.9	19.5	48.9	
Effective Green, g (s)	31.1	31.1	31.1					25.9	25.9	19.5	48.9	
Actuated g/C Ratio	0.35	0.35	0.35					0.29	0.29	0.22	0.54	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	556	1135	547					1018	455	743	1012	
v/s Ratio Prot	c0.31	0.24	0.02					0.10	c0.17	c0.17	0.19	
v/s Ratio Perm												
v/c Ratio	0.90	0.87dl	0.05					0.33	0.60	0.80	0.35	
Uniform Delay, d1	28.0	25.5	19.6					25.3	27.6	33.4	11.6	
Progression Factor	0.86	0.85	0.72					1.00	1.00	0.85	1.09	
Incremental Delay, d2	18.1	2.0	0.0					0.9	5.7	5.4	0.2	
Delay (s)	42.1	23.7	14.1					26.1	33.2	33.6	12.9	
Level of Service	D	C	B					C	C	C	B	
Approach Delay (s)		29.9			0.0			30.1			25.9	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			28.7									
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			114.7%									
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	269	138	617	85	298	0	0	750	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4547	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4547	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	269	138	617	85	298	0	0	750	34
RTOR Reduction (vph)	0	0	0	0	0	325	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	269	138	292	85	298	0	0	780	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				30.2	30.2	30.2	15.2	51.8			32.6	
Effective Green, g (s)				30.2	30.2	30.2	15.2	51.8			32.6	
Actuated g/C Ratio				0.34	0.34	0.34	0.17	0.58			0.36	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				534	1068	478	269	1833			1647	
v/s Ratio Prot				0.17	0.04	c0.20	c0.05	0.09			c0.17	
v/s Ratio Perm												
v/c Ratio				0.50	0.13	0.61	0.32	0.16			0.47	
Uniform Delay, d1				23.9	20.8	25.0	32.8	8.9			22.1	
Progression Factor				1.00	1.00	1.00	0.75	0.99			1.00	
Incremental Delay, d2				0.8	0.1	2.3	0.5	0.1			1.0	
Delay (s)				24.7	20.8	27.3	25.0	9.0			23.1	
Level of Service				C	C	C	C	A			C	
Approach Delay (s)		0.0			25.7			12.6			23.1	
Approach LOS		A			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			22.5									
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			114.7%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	486	191	0	0	0	0	491	80	99	724	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0		4.0	4.0	
Lane Util. Factor		0.86						0.95		1.00	0.95	
Frt		0.96						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		5518						3118		1593	3185	
Flt Permitted		0.99						1.00		0.37	1.00	
Satd. Flow (perm)		5518						3118		621	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	119	486	191	0	0	0	0	491	80	99	724	0
RTOR Reduction (vph)	0	94	0	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	702	0	0	0	0	0	550	0	99	724	0
Turn Type	Split	NA						NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.0						21.0		29.0	29.0	
Effective Green, g (s)		23.0						21.0		29.0	29.0	
Actuated g/C Ratio		0.38						0.35		0.48	0.48	
Clearance Time (s)		4.0						4.0		4.0	4.0	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		2115						1091		364	1539	
v/s Ratio Prot		c0.13						0.18		0.02	c0.23	
v/s Ratio Perm										0.11		
v/c Ratio		0.33						0.50		0.27	0.47	
Uniform Delay, d1		13.1						15.4		11.7	10.4	
Progression Factor		1.00						1.00		0.78	0.79	
Incremental Delay, d2		0.1						1.7		0.4	0.9	
Delay (s)		13.2						17.1		9.4	9.2	
Level of Service		B						B		A	A	
Approach Delay (s)		13.2			0.0			17.1			9.2	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		55.2%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	161	511	94	135	480	0	0	612	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.91		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					4446		1593	3185			4495	
Flt Permitted					0.99		0.33	1.00			1.00	
Satd. Flow (perm)					4446		547	3185			4495	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	161	511	94	135	480	0	0	612	83
RTOR Reduction (vph)	0	0	0	0	30	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	736	0	135	480	0	0	666	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1926		306	1380			1348	
v/s Ratio Prot					c0.17		0.03	c0.15			c0.15	
v/s Ratio Perm							0.16					
v/c Ratio					0.38		0.44	0.35			0.49	
Uniform Delay, d1					11.5		14.5	11.3			17.3	
Progression Factor					1.00		0.44	0.50			1.50	
Incremental Delay, d2					0.6		4.1	0.6			1.0	
Delay (s)					12.1		10.5	6.2			26.9	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			12.1			7.2			26.9	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			15.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			55.2%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	319	109	3	379	114	2	489	35	0	788	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3063			3075			3153			3131	
Flt Permitted		0.95			0.95			0.95			1.00	
Satd. Flow (perm)		2905			2930			3003			3131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	319	109	3	379	114	2	489	35	0	788	100
RTOR Reduction (vph)	0	55	0	0	46	0	0	9	0	0	16	0
Lane Group Flow (vph)	0	379	0	0	450	0	0	517	0	0	872	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		23.5			23.5			25.5			25.5	
Effective Green, g (s)		23.5			23.5			25.5			25.5	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1137			1147			1276			1330	
v/s Ratio Prot											c0.28	
v/s Ratio Perm		0.13			c0.15			0.17				
v/c Ratio		0.33			0.39			0.41			0.66	
Uniform Delay, d1		12.8			13.1			12.0			13.7	
Progression Factor		1.00			1.00			1.41			1.00	
Incremental Delay, d2		0.8			1.0			0.9			2.5	
Delay (s)		13.6			14.1			17.8			16.3	
Level of Service		B			B			B			B	
Approach Delay (s)		13.6			14.1			17.8			16.3	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			15.7			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			60.0			Sum of lost time (s)			11.0			
Intersection Capacity Utilization			55.5%			ICU Level of Service			B			
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	10	35	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	10	35	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			264	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			264	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	95	98
cM capacity (veh/h)	1514			1460			640	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	28	38								
Volume Left	0	18	10	0								
Volume Right	39	0	0	21								
cSH	1700	1460	674	794								
Volume to Capacity	0.07	0.01	0.04	0.05								
Queue Length 95th (ft)	0	1	3	4								
Control Delay (s)	0.0	1.4	10.6	9.8								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.1									
Approach LOS			B									
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	208	12	30	222	0	0	0	0	14	21	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	208	12	30	222	0	0	0	0	14	21	86
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		367			383							
pX, platoon unblocked				0.99			0.99	0.99	0.99	0.99	0.99	
vC, conflicting volume	222			220			592	496	214	496	502	222
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			209			585	487	203	487	493	222
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	95	89
cM capacity (veh/h)	1347			1350			356	466	831	478	462	818
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	220	252	24	96								
Volume Left	0	30	14	0								
Volume Right	12	0	0	86								
cSH	1700	1350	471	754								
Volume to Capacity	0.13	0.02	0.05	0.13								
Queue Length 95th (ft)	0	2	4	11								
Control Delay (s)	0.0	1.1	13.1	10.5								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.1	11.0									
Approach LOS			B									
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			38.8%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	179	217	209	120	101	99
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	179	217	209	120	101	99
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		508	358	575	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		508	358	575	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	89		34	76	74	91
cM capacity (veh/h)	1623		316	506	381	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	179	217	329	101	99	
Volume Left	179	0	209	0	0	
Volume Right	0	217	0	0	99	
cSH	1623	1700	366	381	1085	
Volume to Capacity	0.11	0.13	0.90	0.26	0.09	
Queue Length 95th (ft)	9	0	226	26	8	
Control Delay (s)	7.5	0.0	59.0	17.8	8.7	
Lane LOS	A		F	C	A	
Approach Delay (s)	3.4		59.0	13.3		
Approach LOS			F	B		
Intersection Summary						
Average Delay			25.3			
Intersection Capacity Utilization			41.1%	ICU Level of Service		A
Analysis Period (min)			15			

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #17
Webster Street / Embarcadero
Existing plus Commercial
PM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

5.4

Yes ☒ No ☐

329

Yes ☒ No ☐

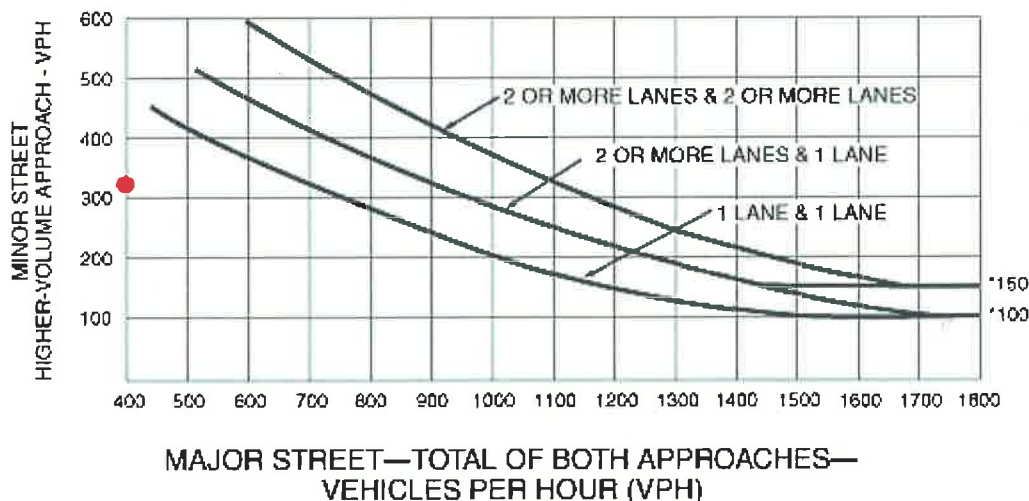
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PART B

PART B satisfied YES ☐ NO ☒

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



396/311

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	394	0	0	0	0	0	512	903	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4536						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4536						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	86	394	0	0	0	0	0	512	903	0	0	0
RTOR Reduction (vph)	0	37	0	0	0	0	0	0	340	0	0	0
Lane Group Flow (vph)	0	443	0	0	0	0	0	512	563	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		34.0						16.0	34.0			
Effective Green, g (s)		34.0						16.0	34.0			
Actuated g/C Ratio		0.57						0.27	0.57			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2570						1220	1421			
v/s Ratio Prot								0.11				
v/s Ratio Perm		0.10							c0.22			
v/c Ratio		0.17						0.42	0.40			
Uniform Delay, d1		6.2						18.2	7.3			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.1						1.1	0.8			
Delay (s)		6.4						19.2	8.1			
Level of Service		A						B	A			
Approach Delay (s)		6.4			0.0			12.1			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		10.7						HCM 2000 Level of Service	B			
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		81.6%						ICU Level of Service	D			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	232	484	368	0	0	0	0	526	28	106	117	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4775						1850		1770	1863	
Flt Permitted		0.99						1.00		0.23	1.00	
Satd. Flow (perm)		4775						1850		426	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	232	484	368	0	0	0	0	526	28	106	117	0
RTOR Reduction (vph)	0	124	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	960	0	0	0	0	0	552	0	106	117	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2196						727		167	732	
v/s Ratio Prot								c0.30			0.06	
v/s Ratio Perm		0.20								0.25		
v/c Ratio		0.44						0.76		0.63	0.16	
Uniform Delay, d1		13.7						19.7		18.4	14.7	
Progression Factor		1.00						1.00		0.69	0.71	
Incremental Delay, d2		0.6						7.3		16.8	0.5	
Delay (s)		14.3						27.0		29.5	10.8	
Level of Service		B						C		C	B	
Approach Delay (s)		14.3			0.0			27.0			19.7	
Approach LOS		B			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		18.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		90.7%						ICU Level of Service		E		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↰	↰	↱			↱	↰
Volume (vph)	0	0	0	9	322	44	419	368	0	0	211	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.63	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1049	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	9	322	44	419	368	0	0	211	425
RTOR Reduction (vph)	0	0	0	0	0	33	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	322	11	419	368	0	0	211	425
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	622	994			994	1425
v/s Ratio Prot				0.01	c0.19			0.22			0.13	
v/s Ratio Perm						0.01	c0.40					0.30
v/c Ratio				0.02	0.74	0.03	0.67	0.37			0.21	0.30
Uniform Delay, d1				20.7	25.4	20.7	10.3	7.9			7.1	0.0
Progression Factor				1.00	1.00	1.00	0.56	0.59			1.00	1.00
Incremental Delay, d2				0.1	10.8	0.2	4.4	0.8			0.5	0.5
Delay (s)				20.7	36.2	20.9	10.2	5.5			7.6	0.5
Level of Service				C	D	C	B	A			A	A
Approach Delay (s)		0.0			34.0			8.0			2.9	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.6									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 11.0
Intersection Capacity Utilization			90.7%									ICU Level of Service E
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	32	839	410	0	0	0	0	234	108	30	281	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	4.0					4.0			4.0		
Lane Util. Factor		0.86	0.86					1.00			1.00		
Frt		0.98	0.85					0.96			1.00		
Flt Protected		1.00	1.00					1.00			1.00		
Satd. Flow (prot)		4238	1226					1605			1668		
Flt Permitted		1.00	1.00					1.00			0.95		
Satd. Flow (perm)		4238	1226					1605			1592		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	32	839	410	0	0	0	0	234	108	30	281	0	
RTOR Reduction (vph)	0	28	0	0	0	0	0	28	0	0	0	0	
Lane Group Flow (vph)	0	966	287	0	0	0	0	314	0	0	311	0	
Turn Type	Split	NA	Free					NA		Perm	NA		
Protected Phases	4	4						2			6		
Permitted Phases			Free							6			
Actuated Green, G (s)		27.0	60.0					24.0			24.0		
Effective Green, g (s)		27.0	60.0					24.0			24.0		
Actuated g/C Ratio		0.45	1.00					0.40			0.40		
Clearance Time (s)		5.0						4.0			4.0		
Vehicle Extension (s)		3.0						3.0			3.0		
Lane Grp Cap (vph)		1907	1226					642			636		
v/s Ratio Prot		c0.23						c0.20					
v/s Ratio Perm			0.23								0.20		
v/c Ratio		0.51	0.23					0.49			0.49		
Uniform Delay, d1		11.8	0.0					13.4			13.4		
Progression Factor		1.00	1.00					1.00			1.00		
Incremental Delay, d2		1.0	0.4					2.7			2.7		
Delay (s)		12.7	0.4					16.1			16.1		
Level of Service		B	A					B			B		
Approach Delay (s)		10.0			0.0			16.1			16.1		
Approach LOS		A			A			B			B		
Intersection Summary													
HCM 2000 Control Delay			12.0									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.50										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	9.0
Intersection Capacity Utilization			72.2%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

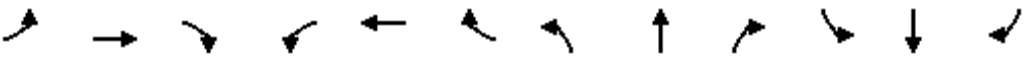
HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↙↑	
Volume (vph)	0	539	26	0	0	0	0	0	0	747	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3268	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3268	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	539	26	0	0	0	0	0	0	747	124	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	74	74	0
Lane Group Flow (vph)	0	554	0	0	0	0	0	0	0	299	424	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1562	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.19	0.13	
v/c Ratio		0.32								0.39	0.27	
Uniform Delay, d1		11.0								7.7	7.2	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								1.5	0.4	
Delay (s)		11.5								9.2	7.6	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			8.3	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.36									
Actuated Cycle Length (s)			46.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			34.8%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Volume (vph)	0	0	0	15	173	0	0	0	0	0	907	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					4559						4460	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					4559						4460	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	15	173	0	0	0	0	0	907	185
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	69	0
Lane Group Flow (vph)	0	0	0	0	172	0	0	0	0	0	1023	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1519						2180	
v/s Ratio Prot					c0.04						c0.23	
v/s Ratio Perm												
v/c Ratio					0.11						0.47	
Uniform Delay, d1					10.4						7.6	
Progression Factor					0.89						1.00	
Incremental Delay, d2					0.1						0.7	
Delay (s)					9.4						8.4	
Level of Service					A						A	
Approach Delay (s)		0.0			9.4			0.0			8.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.5		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			34.8%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	777	254	0	0	0	0	0	0	242	721	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.96										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5554										4520	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5554										4520	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	777	254	0	0	0	0	0	0	242	721	0	
RTOR Reduction (vph)	0	86	0	0	0	0	0	0	0	0	44	0	
Lane Group Flow (vph)	0	945	0	0	0	0	0	0	0	0	919	0	
Turn Type		NA									Perm	NA	
Protected Phases		4									6		
Permitted Phases											6		
Actuated Green, G (s)		24.0									28.0		
Effective Green, g (s)		24.0									28.0		
Actuated g/C Ratio		0.40									0.47		
Clearance Time (s)		4.0									4.0		
Vehicle Extension (s)		3.0									3.0		
Lane Grp Cap (vph)		2221									2109		
v/s Ratio Prot		0.17											
v/s Ratio Perm											0.20		
v/c Ratio		0.43									0.44		
Uniform Delay, d1		13.0									10.7		
Progression Factor		0.33									1.00		
Incremental Delay, d2		0.5									0.7		
Delay (s)		4.8									11.4		
Level of Service		A									B		
Approach Delay (s)		4.8				0.0		0.0		11.4			
Approach LOS		A				A		A		B			
Intersection Summary													
HCM 2000 Control Delay			8.0		HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio			0.43										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			44.8%		ICU Level of Service				A				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	256	0	120	5	0	1	122	241	0	0	228	159
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	256	0	120	5	0	1	122	241	0	0	228	159
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None						None					
Median storage (veh)												
Upstream signal (ft)												563
pX, platoon unblocked												
vC, conflicting volume	673	792	194	719	872	120	387				241	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	673	792	194	719	872	120	387				241	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	18	100	85	98	100	100	90				100	
cM capacity (veh/h)	313	286	815	248	257	908	1168				1323	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	256	120	122	120	120	152	235					
Volume Left	256	0	122	0	0	0	0					
Volume Right	0	120	0	0	0	0	159					
cSH	313	815	1168	1700	1700	1700	1700					
Volume to Capacity	0.82	0.15	0.10	0.07	0.07	0.09	0.14					
Queue Length 95th (ft)	171	13	9	0	0	0	0					
Control Delay (s)	52.3	10.2	8.4	0.0	0.0	0.0	0.0					
Lane LOS	F	B	A									
Approach Delay (s)	38.8	2.8		0.0								
Approach LOS	E											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	193	77	49	484	283	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1729		1770	1863	1863	1583
Flt Permitted	0.97		0.59	1.00	1.00	1.00
Satd. Flow (perm)	1729		1092	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	193	77	49	484	283	60
RTOR Reduction (vph)	28	0	0	0	0	23
Lane Group Flow (vph)	242	0	49	484	283	37
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	12.5		33.4	33.4	33.4	33.4
Effective Green, g (s)	12.5		33.4	33.4	33.4	33.4
Actuated g/C Ratio	0.23		0.62	0.62	0.62	0.62
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	400		676	1154	1154	980
v/s Ratio Prot	c0.14			c0.26	0.15	
v/s Ratio Perm			0.04			0.02
v/c Ratio	0.60		0.07	0.42	0.25	0.04
Uniform Delay, d1	18.5		4.1	5.3	4.6	4.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6		0.2	1.1	0.5	0.1
Delay (s)	21.1		4.3	6.4	5.1	4.1
Level of Service	C		A	A	A	A
Approach Delay (s)	21.1			6.2	4.9	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			9.3	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.47			
Actuated Cycle Length (s)			53.9	Sum of lost time (s)		8.0
Intersection Capacity Utilization			47.5%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	854	118	0	0	0	0	487	316	4	218	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.94			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4965						3330			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4965						3330			1835	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	854	118	0	0	0	0	487	316	4	218	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	72	0	0	0	0
Lane Group Flow (vph)	0	1149	0	0	0	0	0	731	0	0	222	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1110			611	
v/s Ratio Prot		c0.23						c0.22				
v/s Ratio Perm											0.12	
v/c Ratio		0.47						0.66			0.36	
Uniform Delay, d1		7.6						12.8			11.4	
Progression Factor		1.00						1.00			1.27	
Incremental Delay, d2		0.7						3.1			1.6	
Delay (s)		8.3						15.9			16.1	
Level of Service		A						B			B	
Approach Delay (s)		8.3			0.0			15.9			16.1	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.55										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		53.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	194	80	478	134	573	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2785	1297		3155				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2785	1297		3155				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	194	80	478	134	573	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	57	57	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	456	182	0	707	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1361	634		1051				
v/s Ratio Prot					c0.16			c0.22				
v/s Ratio Perm						0.14						
v/c Ratio					0.33	0.29		0.67				
Uniform Delay, d1					7.0	6.8		12.9				
Progression Factor					1.00	1.00		0.76				
Incremental Delay, d2					0.7	1.1		2.7				
Delay (s)					7.7	8.0		12.6				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.8			12.6			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			50.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	758	0	0	0	0	0	919	189	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.97				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5728						4460				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5728						4460				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	118	758	0	0	0	0	0	919	189	0	0	0
RTOR Reduction (vph)	0	28	0	0	0	0	0	52	0	0	0	0
Lane Group Flow (vph)	0	849	0	0	0	0	0	1056	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2577						1784				
v/s Ratio Prot								c0.24				
v/s Ratio Perm		0.15										
v/c Ratio		0.33						0.59				
Uniform Delay, d1		10.7						14.1				
Progression Factor		0.69						1.00				
Incremental Delay, d2		0.3						1.5				
Delay (s)		7.7						15.6				
Level of Service		A						B				
Approach Delay (s)		7.7			0.0			15.6			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.1			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			9.0				
Intersection Capacity Utilization		71.5%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	44	338	5	1	242	309	9	1	3	340	2	46
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	44	338	5	1	242	309	9	1	3	340	2	46
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	387	243	309	13	388							
Volume Left (vph)	44	1	0	9	340							
Volume Right (vph)	5	0	309	3	46							
Hadj (s)	0.05	0.04	-0.67	0.03	0.14							
Departure Headway (s)	6.3	6.6	5.9	7.6	6.4							
Degree Utilization, x	0.68	0.45	0.51	0.03	0.69							
Capacity (veh/h)	387	518	586	379	388							
Control Delay (s)	21.4	13.7	13.7	10.8	22.8							
Approach Delay (s)	21.4	13.7		10.8	22.8							
Approach LOS	C	B		B	C							
Intersection Summary												
Delay			18.5									
Level of Service			C									
Intersection Capacity Utilization			70.5%	ICU Level of Service		C						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	160	44	57	200	39	31	495	45	87	794	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Flt Protected	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	195	174	48	62	217	42	34	538	49	95	863	175
RTOR Reduction (vph)	0	0	37	0	17	0	0	6	0	0	0	152
Lane Group Flow (vph)	195	174	11	62	242	0	34	581	0	95	863	23
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Effective Green, g (s)	9.3	16.3	16.3	5.0	12.0		2.9	26.1		7.4	30.6	9.3
Actuated g/C Ratio	0.13	0.23	0.23	0.07	0.17		0.04	0.37		0.10	0.43	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	450	814	364	125	585		72	1288		185	1529	207
v/s Ratio Prot	c0.06	0.05		0.04	c0.07		0.02	0.17		c0.05	c0.24	0.01
v/s Ratio Perm			0.01									
v/c Ratio	0.43	0.21	0.03	0.50	0.41		0.47	0.45		0.51	0.56	0.11
Uniform Delay, d1	28.3	22.1	21.1	31.7	26.3		33.2	16.9		30.0	15.1	27.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	3.1	0.5		4.8	1.1		2.4	1.5	0.2
Delay (s)	29.0	22.2	21.2	34.8	26.7		38.0	18.1		32.4	16.6	27.3
Level of Service	C	C	C	C	C		D	B		C	B	C
Approach Delay (s)		25.3			28.3			19.2			19.6	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			21.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			70.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			50.5%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	141	99	50	134	95	84	547	38	125	1109	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3320		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	153	108	54	146	103	91	595	41	136	1205	125
RTOR Reduction (vph)	0	87	0	0	88	0	0	0	25	0	0	61
Lane Group Flow (vph)	110	174	0	54	161	0	91	595	16	136	1205	64
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Effective Green, g (s)	7.6	12.4		4.6	9.4		5.6	25.5	25.5	6.3	26.2	26.2
Actuated g/C Ratio	0.12	0.19		0.07	0.15		0.09	0.39	0.39	0.10	0.40	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207	635		125	481		296	1392	622	333	1430	640
v/s Ratio Prot	c0.06	c0.05		0.03	0.05		0.03	0.17		c0.04	c0.34	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.53	0.27		0.43	0.33		0.31	0.43	0.03	0.41	0.84	0.10
Uniform Delay, d1	26.9	22.4		28.8	24.9		27.8	14.3	12.0	27.5	17.4	12.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.2		2.4	0.4		0.6	1.0	0.1	0.8	6.2	0.3
Delay (s)	29.5	22.6		31.2	25.3		28.4	15.3	12.1	28.3	23.6	12.3
Level of Service	C	C		C	C		C	B	B	C	C	B
Approach Delay (s)		24.6			26.4			16.7			23.1	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			22.0				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			64.8				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			59.7%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative Year 2035 No Project Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	73	20	13	267	33	47	11	3	31	56	96
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	73	20	13	267	33	47	11	3	31	56	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	300			93			414	457	46	402	450	150
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300			93			414	457	46	402	450	150
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			89	98	100	94	89	89
cM capacity (veh/h)	1258			1499			415	485	1013	511	489	870
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	60	56	146	166	61	31	37	115				
Volume Left	24	0	13	0	47	31	0	0				
Volume Right	0	20	0	33	3	0	0	96				
cSH	1258	1700	1499	1700	439	511	489	772				
Volume to Capacity	0.02	0.03	0.01	0.10	0.14	0.06	0.08	0.15				
Queue Length 95th (ft)	1	0	1	0	12	5	6	13				
Control Delay (s)	3.2	0.0	0.7	0.0	14.5	12.5	13.0	10.5				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	1.7		0.3		14.5	11.3						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.8									
Intersection Capacity Utilization			33.5%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	187	10	0	0	0	0	61	20	63	201	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.96		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5042						3408		1770	5085	
Flt Permitted		1.00						1.00		0.70	1.00	
Satd. Flow (perm)		5042						3408		1307	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	187	10	0	0	0	0	61	20	63	201	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	197	0	0	0	0	0	66	0	63	201	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		45.5						19.5		19.5	19.5	
Effective Green, g (s)		45.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.61						0.26		0.26	0.26	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3058						886		339	1322	
v/s Ratio Prot								0.02			0.04	
v/s Ratio Perm		0.04								c0.05		
v/c Ratio		0.06						0.07		0.19	0.15	
Uniform Delay, d1		6.0						20.9		21.6	21.4	
Progression Factor		1.00						1.21		0.62	0.64	
Incremental Delay, d2		0.0						0.2		1.2	0.2	
Delay (s)		6.1						25.6		14.7	13.9	
Level of Service		A						C		B	B	
Approach Delay (s)		6.1			0.0			25.6			14.1	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		12.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.10										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		29.0%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↑↑	↑		↓	↑			↑↑
Volume (vph)	0	0	0	92	259	245	11	24	55	0	0	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3493	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.65	1.00			1.00
Satd. Flow (perm)					3493	1583		1205	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	92	259	245	11	24	55	0	0	166
RTOR Reduction (vph)	0	0	0	0	0	198	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	351	47	0	35	55	0	0	166
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					14.3	14.3		51.7	51.7			51.7
Effective Green, g (s)					14.3	14.3		51.7	51.7			51.7
Actuated g/C Ratio					0.19	0.19		0.69	0.69			0.69
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					665	301		830	1284			2439
v/s Ratio Prot									0.03			c0.05
v/s Ratio Perm					0.10	0.03		0.03				
v/c Ratio					0.53	0.16		0.04	0.04			0.07
Uniform Delay, d1					27.3	25.3		3.7	3.7			3.8
Progression Factor					0.84	0.55		0.63	0.61			0.82
Incremental Delay, d2					0.8	0.2		0.1	0.1			0.1
Delay (s)					23.8	14.2		2.5	2.3			3.2
Level of Service					C	B		A	A			A
Approach Delay (s)		0.0			19.8				2.4			3.2
Approach LOS		A			B				A			A
Intersection Summary												
HCM 2000 Control Delay			13.9		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.17									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			29.0%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	62
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	62
RTOR Reduction (vph)	19
Lane Group Flow (vph)	43
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	51.7
Effective Green, g (s)	51.7
Actuated g/C Ratio	0.69
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1091
v/s Ratio Prot	
v/s Ratio Perm	0.03
v/c Ratio	0.04
Uniform Delay, d1	3.7
Progression Factor	0.82
Incremental Delay, d2	0.1
Delay (s)	3.1
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	339	37	48	749	46	137	170	14	50	95	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5010		1770	5041		1770	1841		1770	3539	1583
Satd. Flow (perm)	451	5010		969	5041		1290	1841		1195	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	53	339	37	48	749	46	137	170	14	50	95	94
RTOR Reduction (vph)	0	24	0	0	13	0	0	3	0	0	0	37
Lane Group Flow (vph)	53	352	0	48	782	0	137	181	0	50	95	57
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	19.8	19.8		19.8	19.8		45.7	45.7		45.7	45.7	45.7
Effective Green, g (s)	19.8	19.8		19.8	19.8		45.7	45.7		45.7	45.7	45.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.61	0.61		0.61	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	119	1322		255	1330		786	1121		728	2156	964
v/s Ratio Prot		0.07			c0.16			0.10			0.03	
v/s Ratio Perm	0.12			0.05			c0.11			0.04		0.04
v/c Ratio	0.45	0.27		0.19	0.59		0.17	0.16		0.07	0.04	0.06
Uniform Delay, d1	23.0	21.8		21.4	24.0		6.4	6.3		6.0	5.9	5.9
Progression Factor	1.00	1.00		1.00	1.00		0.75	0.74		1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1		0.4	0.7		0.5	0.3		0.2	0.0	0.1
Delay (s)	25.7	22.0		21.7	24.7		5.3	5.0		6.2	5.9	6.1
Level of Service	C	C		C	C		A	A		A	A	A
Approach Delay (s)		22.4			24.5			5.1			6.0	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			18.2				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			75.0				Sum of lost time (s)			9.5		
Intersection Capacity Utilization			47.8%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	159	883	471	31	92	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5427	4534		2959	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5427	4534		2959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	159	883	471	31	92	69
RTOR Reduction (vph)	75	34	6	0	0	0
Lane Group Flow (vph)	68	865	496	0	161	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	55.0	55.0	24.0		21.0	
Effective Green, g (s)	55.0	55.0	24.0		21.0	
Actuated g/C Ratio	0.48	0.48	0.21		0.18	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	616	2595	946		540	
v/s Ratio Prot	0.05	c0.16	c0.11		c0.05	
v/s Ratio Perm						
v/c Ratio	0.11	0.33	0.52		0.30	
Uniform Delay, d1	16.5	18.6	40.4		40.6	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.3	2.1		0.3	
Delay (s)	16.9	19.0	42.5		40.9	
Level of Service	B	B	D		D	
Approach Delay (s)		18.7	42.5		40.9	
Approach LOS		B	D		D	
Intersection Summary						
HCM 2000 Control Delay			27.8		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.37			
Actuated Cycle Length (s)			115.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			68.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	239	289	43	559	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2895	1297	1290	5430				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2895	1297	1290	5430				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	239	289	43	559	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	52	63	25	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	311	102	14	554	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					64.0	64.0	41.5	41.5				
Effective Green, g (s)					64.0	64.0	41.5	41.5				
Actuated g/C Ratio					0.56	0.56	0.36	0.36				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1611	721	465	1959				
v/s Ratio Prot					0.11							
v/s Ratio Perm						0.08	0.01	0.10				
v/c Ratio					0.19	0.14	0.03	0.28				
Uniform Delay, d1					12.7	12.3	23.7	26.2				
Progression Factor					1.00	1.00	1.96	1.18				
Incremental Delay, d2					0.3	0.4	0.1	0.3				
Delay (s)					12.9	12.7	46.7	31.3				
Level of Service					B	B	D	C				
Approach Delay (s)		0.0			12.9			32.3			0.0	
Approach LOS		A			B			C			A	
Intersection Summary												
HCM 2000 Control Delay			23.2									
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			115.0									
Intersection Capacity Utilization			46.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	7	30	4	8	85	92	3	7	0	320	102	66							
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
Hourly flow rate (vph)	7	30	4	8	85	92	3	7	0	320	102	66							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	41	185	10	371	117														
Volume Left (vph)	7	8	3	320	0														
Volume Right (vph)	4	92	0	0	66														
Hadj (s)	0.01	-0.26	0.09	0.47	-0.36														
Departure Headway (s)	5.4	4.9	5.3	5.6	4.7														
Degree Utilization, x	0.06	0.25	0.01	0.57	0.15														
Capacity (veh/h)	608	682	630	629	737														
Control Delay (s)	8.8	9.6	8.4	14.6	7.4														
Approach Delay (s)	8.8	9.6	8.4	12.9															
Approach LOS	A	A	A	B															
Intersection Summary																			
Delay				11.8															
Level of Service				B															
Intersection Capacity Utilization				42.3%	ICU Level of Service	A													
Analysis Period (min)				15															

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	2	7	22	26	16	337	33	103	369	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	2	2	7	22	26	16	337	33	103	369	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	836	1001	208	779	1008	185	417			370		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	836	1001	208	779	1008	185	417			370		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	100	97	90	97	99			91		
cM capacity (veh/h)	214	217	797	262	215	826	1138			1185		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	10	55	184	202	288	232						
Volume Left	6	7	16	0	103	0						
Volume Right	2	26	0	33	0	48						
cSH	252	343	1138	1700	1185	1700						
Volume to Capacity	0.04	0.16	0.01	0.12	0.09	0.14						
Queue Length 95th (ft)	3	14	1	0	7	0						
Control Delay (s)	19.9	17.5	0.8	0.0	3.5	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	19.9	17.5	0.4		1.9							
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			38.9%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	33	21	5	51	45	34	326	30	101	333	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.94			0.94			0.99			0.96	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1754			1746			3483			3363	
Flt Permitted	0.69	1.00			0.99			0.88			0.81	
Satd. Flow (perm)	1288	1754			1737			3073			2755	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	33	21	5	51	45	34	326	30	101	333	168
RTOR Reduction (vph)	0	12	0	0	26	0	0	8	0	0	54	0
Lane Group Flow (vph)	34	42	0	0	75	0	0	382	0	0	548	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	549	748			741			1393			1248	
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.03				0.04			0.12			0.20	
v/c Ratio	0.06	0.06			0.10			0.27			0.44	
Uniform Delay, d1	12.7	12.6			12.9			12.8			14.0	
Progression Factor	1.00	1.00			1.00			1.00			0.74	
Incremental Delay, d2	0.2	0.1			0.3			0.5			1.1	
Delay (s)	12.9	12.8			13.2			13.3			11.5	
Level of Service	B	B			B			B			B	
Approach Delay (s)		12.8			13.2			13.3			11.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			12.3									
HCM 2000 Volume to Capacity ratio			0.28									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			49.1%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	931	177	99	0	0	0	0	305	513	548	320	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5		
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00		
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863		
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	931	177	99	0	0	0	0	305	513	548	320	0	
RTOR Reduction (vph)	0	0	70	0	0	0	0	0	179	0	0	0	
Lane Group Flow (vph)	465	643	29	0	0	0	0	305	334	548	320	0	
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA		
Protected Phases	4	4	4					2	2	1	6		
Permitted Phases													
Actuated Green, G (s)	21.6	21.6	21.6					23.5	23.5	16.4	43.4		
Effective Green, g (s)	21.6	21.6	21.6					23.5	23.5	16.4	43.4		
Actuated g/C Ratio	0.29	0.29	0.29					0.31	0.31	0.22	0.58		
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	463	942	455					1108	496	750	1078		
v/s Ratio Prot	c0.29	0.20	0.02					0.09	c0.21	c0.16	0.17		
v/s Ratio Perm													
v/c Ratio	1.00	0.96dl	0.06					0.28	0.67	0.73	0.30		
Uniform Delay, d1	26.7	23.7	19.4					19.4	22.4	27.2	8.0		
Progression Factor	0.95	0.95	0.87					1.22	1.45	1.19	1.58		
Incremental Delay, d2	42.9	2.1	0.1					0.6	7.1	3.6	0.2		
Delay (s)	68.2	24.5	16.9					24.3	39.7	36.0	12.8		
Level of Service	E	C	B					C	D	D	B		
Approach Delay (s)		40.7			0.0			34.0			27.5		
Approach LOS		D			A			C			C		
Intersection Summary													
HCM 2000 Control Delay			34.8									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.80										
Actuated Cycle Length (s)			75.0									Sum of lost time (s)	13.5
Intersection Capacity Utilization			109.3%									ICU Level of Service	H
Analysis Period (min)			15										
dl Defacto Left Lane. Recode with 1 though lane as a left lane.													
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	294	156	533	64	463	0	0	354	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4498	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4498	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	294	156	533	64	463	0	0	354	46
RTOR Reduction (vph)	0	0	0	0	0	227	0	0	0	0	19	0
Lane Group Flow (vph)	0	0	0	294	156	306	64	463	0	0	381	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				27.0	27.0	27.0	11.4	40.0			24.6	
Effective Green, g (s)				27.0	27.0	27.0	11.4	40.0			24.6	
Actuated g/C Ratio				0.36	0.36	0.36	0.15	0.53			0.33	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				573	1146	513	242	1698			1475	
v/s Ratio Prot				0.18	0.05	c0.21	0.04	c0.15			0.08	
v/s Ratio Perm												
v/c Ratio				0.51	0.14	0.60	0.26	0.27			0.26	
Uniform Delay, d1				18.8	16.2	19.6	28.1	9.6			18.5	
Progression Factor				1.00	1.00	1.00	0.60	0.76			1.00	
Incremental Delay, d2				0.8	0.1	1.9	0.4	0.3			0.4	
Delay (s)				19.6	16.2	21.4	17.4	7.5			18.9	
Level of Service				B	B	C	B	A			B	
Approach Delay (s)		0.0			20.1			8.7			18.9	
Approach LOS		A			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			16.7		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					12.0		
Intersection Capacity Utilization			109.3%		ICU Level of Service					H		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	632	125	0	0	0	0	410	78	105	529	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		4550	1425					3109		1593	3185	
Flt Permitted		0.99	1.00					1.00		0.43	1.00	
Satd. Flow (perm)		4550	1425					3109		716	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	632	125	0	0	0	0	410	78	105	529	0
RTOR Reduction (vph)	0	0	77	0	0	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	716	48	0	0	0	0	463	0	105	529	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		23.0	23.0					21.0		29.0	29.0	
Effective Green, g (s)		23.0	23.0					21.0		29.0	29.0	
Actuated g/C Ratio		0.38	0.38					0.35		0.48	0.48	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		1744	546					1088		404	1539	
v/s Ratio Prot		c0.16						c0.15		0.02	c0.17	
v/s Ratio Perm			0.03							0.11		
v/c Ratio		0.41	0.09					0.43		0.26	0.34	
Uniform Delay, d1		13.5	11.8					14.9		10.8	9.6	
Progression Factor		1.00	1.00					1.00		0.49	0.48	
Incremental Delay, d2		0.2	0.1					1.2		0.3	0.6	
Delay (s)		13.7	11.9					16.1		5.6	5.2	
Level of Service		B	B					B		A	A	
Approach Delay (s)		13.4			0.0			16.1			5.2	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			11.4					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			53.7%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	145	500	106	93	367	0	0	471	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3088		1593	3185			4521	
Flt Permitted					0.99		0.43	1.00			1.00	
Satd. Flow (perm)					3088		728	3185			4521	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	145	500	106	93	367	0	0	471	42
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	18	0
Lane Group Flow (vph)	0	0	0	0	729	0	93	367	0	0	496	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1338		373	1380			1356	
v/s Ratio Prot					c0.24		0.02	c0.12			c0.11	
v/s Ratio Perm							0.09					
v/c Ratio					0.54		0.25	0.27			0.37	
Uniform Delay, d1					12.6		11.6	10.9			16.5	
Progression Factor					1.00		0.29	0.34			1.91	
Incremental Delay, d2					1.6		1.5	0.4			0.7	
Delay (s)					14.2		4.8	4.2			32.2	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			14.2			4.3			32.2	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			16.9				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			53.7%				ICU Level of Service			A		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	278	79	1	327	111	0	362	24	0	642	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3079			3064			3156			3124	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		2931			2924			3156			3124	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	278	79	1	327	111	0	362	24	0	642	95
RTOR Reduction (vph)	0	43	0	0	55	0	0	8	0	0	20	0
Lane Group Flow (vph)	0	317	0	0	384	0	0	378	0	0	718	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.5			21.5			27.5			27.5	
Effective Green, g (s)		21.5			21.5			27.5			27.5	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1050			1047			1446			1431	
v/s Ratio Prot								0.12			c0.23	
v/s Ratio Perm		0.11			c0.13							
v/c Ratio		0.30			0.37			0.26			0.50	
Uniform Delay, d1		13.9			14.2			10.0			11.4	
Progression Factor		1.00			1.00			1.34			1.00	
Incremental Delay, d2		0.7			1.0			0.4			1.3	
Delay (s)		14.6			15.2			13.8			12.7	
Level of Service		B			B			B			B	
Approach Delay (s)		14.6			15.2			13.8			12.7	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.9			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		47.0%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	5	21	0	0	0	0	14	7	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	5	21	0	0	0	0	14	7	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	21			41			80	64	34	64	72	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			41			80	64	34	64	72	21
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	98	99	99
cM capacity (veh/h)	1595			1568			890	824	1040	927	816	1056
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	26	18	16								
Volume Left	0	5	14	0								
Volume Right	15	0	0	12								
cSH	1700	1568	903	991								
Volume to Capacity	0.02	0.00	0.02	0.02								
Queue Length 95th (ft)	0	0	1	1								
Control Delay (s)	0.0	1.4	9.1	8.7								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	8.9									
Approach LOS			A									
Intersection Summary												
Average Delay			3.3									
Intersection Capacity Utilization			15.4%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	21	13	8	23	0	0	0	0	7	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	21	13	8	23	0	0	0	0	7	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	23			34			70	66	28	66	73	23
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			34			70	66	28	66	73	23
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1592			1578			914	820	1048	923	813	1054
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	34	31	8	4								
Volume Left	0	8	7	0								
Volume Right	13	0	0	2								
cSH	1700	1578	902	935								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	0	1	0								
Control Delay (s)	0.0	1.9	9.0	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.9	9.0									
Approach LOS			A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			18.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	41	103	118	32	12	28
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	41	103	118	32	12	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		116	82	185	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		116	82	185	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	97		85	96	98	97
cM capacity (veh/h)	1623		811	788	691	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	41	103	150	12	28	
Volume Left	41	0	118	0	0	
Volume Right	0	103	0	0	28	
cSH	1623	1700	806	691	1085	
Volume to Capacity	0.03	0.06	0.19	0.02	0.03	
Queue Length 95th (ft)	2	0	17	1	2	
Control Delay (s)	7.3	0.0	10.5	10.3	8.4	
Lane LOS	A		B	B	A	
Approach Delay (s)	2.1		10.5	9.0		
Approach LOS			B	A		
Intersection Summary						
Average Delay	6.7					
Intersection Capacity Utilization	24.9%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	691	0	0	0	0	0	607	1356	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4533						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4533						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	691	0	0	0	0	0	607	1356	0	0	0
RTOR Reduction (vph)	0	67	0	0	0	0	0	0	131	0	0	0
Lane Group Flow (vph)	0	789	0	0	0	0	0	607	1225	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		27.0						23.0	29.0			
Effective Green, g (s)		27.0						23.0	29.0			
Actuated g/C Ratio		0.45						0.38	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2039						1754	1212			
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.17							c0.49			
v/c Ratio		0.39						0.35	1.01			
Uniform Delay, d1		11.0						13.2	15.5			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.6						0.5	28.5			
Delay (s)		11.5						13.7	44.0			
Level of Service		B						B	D			
Approach Delay (s)		11.5			0.0			34.6			0.0	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay		27.6										
HCM 2000 Volume to Capacity ratio		0.77										
Actuated Cycle Length (s)		60.0										
Intersection Capacity Utilization		99.2%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑		↑	↑	
Volume (vph)	311	438	446	0	0	0	0	212	41	66	69	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4739						1822		1770	1863	
Flt Permitted		0.99						1.00		0.56	1.00	
Satd. Flow (perm)		4739						1822		1048	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	311	438	446	0	0	0	0	212	41	66	69	0
RTOR Reduction (vph)	0	144	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	1051	0	0	0	0	0	244	0	66	69	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2179						716		412	732	
v/s Ratio Prot								c0.13			0.04	
v/s Ratio Perm		0.22								0.06		
v/c Ratio		0.48						0.34		0.16	0.09	
Uniform Delay, d1		14.1						15.9		14.7	14.3	
Progression Factor		1.00						1.00		0.68	0.70	
Incremental Delay, d2		0.8						1.3		0.8	0.3	
Delay (s)		14.8						17.2		10.8	10.3	
Level of Service		B						B		B	B	
Approach Delay (s)		14.8			0.0			17.2			10.5	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		14.8						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.42										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		74.7%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	311	56	274	281	0	0	176	1408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.65	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1083	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	311	56	274	281	0	0	176	1408
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	311	15	274	281	0	0	176	1408
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	642	994			994	1425
v/s Ratio Prot				0.00	0.19			0.17			0.10	
v/s Ratio Perm						0.01	0.25					c0.99
v/c Ratio				0.00	0.71	0.04	0.43	0.28			0.18	0.99
Uniform Delay, d1				20.6	25.2	20.7	8.3	7.5			6.9	0.0
Progression Factor				1.00	1.00	1.00	1.30	1.29			1.00	1.00
Incremental Delay, d2				0.0	9.7	0.2	1.9	0.7			0.4	21.2
Delay (s)				20.6	34.9	20.9	12.7	10.2			7.3	21.2
Level of Service				C	C	C	B	B			A	C
Approach Delay (s)		0.0			32.7			11.5			19.6	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			19.7									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			1.16									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 11.0
Intersection Capacity Utilization			74.7%									ICU Level of Service D
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	529	1308	0	0	0	0	354	90	28	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3972	1226					1631			1670	
Flt Permitted		1.00	1.00					1.00			0.96	
Satd. Flow (perm)		3972	1226					1631			1605	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	529	1308	0	0	0	0	354	90	28	356	0
RTOR Reduction (vph)	0	316	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	905	654	0	0	0	0	429	0	0	384	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		19.0	60.0					32.0			32.0	
Effective Green, g (s)		19.0	60.0					32.0			32.0	
Actuated g/C Ratio		0.32	1.00					0.53			0.53	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1257	1226					869			856	
v/s Ratio Prot		c0.23						0.26				
v/s Ratio Perm			c0.53								0.24	
v/c Ratio		0.88dr	0.53					0.49			0.45	
Uniform Delay, d1		18.1	0.0					8.9			8.6	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		3.6	1.7					2.0			1.7	
Delay (s)		21.7	1.7					10.9			10.3	
Level of Service		C	A					B			B	
Approach Delay (s)		14.7			0.0			10.9			10.3	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.5					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)			9.0	
Intersection Capacity Utilization			77.1%					ICU Level of Service			D	
Analysis Period (min)			15									
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↗↑	
Volume (vph)	0	547	22	0	0	0	0	0	0	589	105	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5056								1610	3270	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5056								1610	3270	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	547	22	0	0	0	0	0	0	589	105	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	71	71	0
Lane Group Flow (vph)	0	560	0	0	0	0	0	0	0	223	329	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1563	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.14	0.10	
v/c Ratio		0.32								0.29	0.21	
Uniform Delay, d1		11.0								7.3	7.0	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								0.9	0.3	
Delay (s)		11.5								8.2	7.3	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			7.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.4				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			46.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			32.6%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	34	180	0	0	0	0	0	709	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4541						4401	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4541						4401	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	34	180	0	0	0	0	0	709	244
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	0	0	0	191	0	0	0	0	0	828	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1513						2151	
v/s Ratio Prot					c0.04						c0.19	
v/s Ratio Perm												
v/c Ratio					0.13						0.39	
Uniform Delay, d1					10.4						7.2	
Progression Factor					1.01						1.00	
Incremental Delay, d2					0.2						0.5	
Delay (s)					10.7						7.8	
Level of Service					B						A	
Approach Delay (s)		0.0			10.7			0.0			7.8	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.28									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			32.6%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	435	254	0	0	0	0	0	0	142	678	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.94										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5448										4537	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5448										4537	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	435	254	0	0	0	0	0	0	142	678	0	
RTOR Reduction (vph)	0	107	0	0	0	0	0	0	0	0	54	0	
Lane Group Flow (vph)	0	582	0	0	0	0	0	0	0	0	766	0	
Turn Type		NA									Perm	NA	
Protected Phases		4										6	
Permitted Phases										6			
Actuated Green, G (s)		23.0										29.0	
Effective Green, g (s)		23.0										29.0	
Actuated g/C Ratio		0.38										0.48	
Clearance Time (s)		4.0										4.0	
Vehicle Extension (s)		3.0										3.0	
Lane Grp Cap (vph)		2088										2192	
v/s Ratio Prot		0.11											
v/s Ratio Perm											0.17		
v/c Ratio		0.28										0.35	
Uniform Delay, d1		12.8										9.6	
Progression Factor		0.51										1.00	
Incremental Delay, d2		0.2										0.4	
Delay (s)		6.7										10.1	
Level of Service		A										B	
Approach Delay (s)		6.7				0.0			0.0			10.1	
Approach LOS		A				A			A			B	
Intersection Summary													
HCM 2000 Control Delay		8.5			HCM 2000 Level of Service					A			
HCM 2000 Volume to Capacity ratio		0.32											
Actuated Cycle Length (s)		60.0			Sum of lost time (s)					8.0			
Intersection Capacity Utilization		39.4%			ICU Level of Service					A			
Analysis Period (min)		15											
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	92	0	70	2	0	0	356	578	0	0	325	97
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	92	0	70	2	0	0	356	578	0	0	325	97
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1374	1664	211	1522	1712	289	422				578	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1374	1664	211	1522	1712	289	422				578	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	0	100	91	96	100	100	69				100	
cM capacity (veh/h)	79	66	794	56	61	708	1134				992	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	92	70	356	289	289	217	205					
Volume Left	92	0	356	0	0	0	0					
Volume Right	0	70	0	0	0	0	97					
cSH	79	794	1134	1700	1700	1700	1700					
Volume to Capacity	1.16	0.09	0.31	0.17	0.17	0.13	0.12					
Queue Length 95th (ft)	168	7	34	0	0	0	0					
Control Delay (s)	246.0	10.0	9.6	0.0	0.0	0.0	0.0					
Lane LOS	F	A	A									
Approach Delay (s)	144.0			3.7	0.0							
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #25
Oak Street / Embarcadero
Cumulative
AM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and

Yes ☒ No ☐

6.48

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

Yes ☒ No ☐

162

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

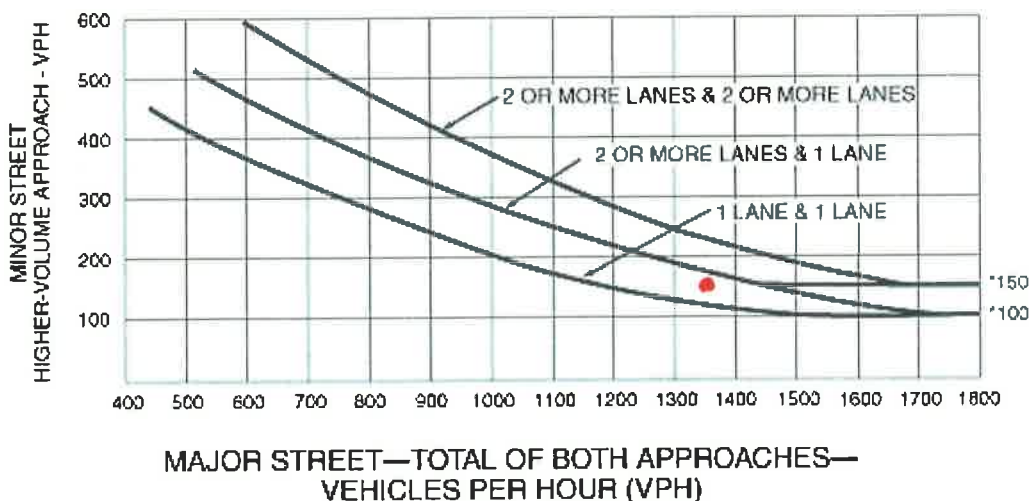
1520

PART B

PART B satisfied YES ☐ NO ☒

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1350/162

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	94	153	709	514	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.91		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1666		1770	1863	1863	1583
Flt Permitted	0.98		0.45	1.00	1.00	1.00
Satd. Flow (perm)	1666		846	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	45	94	153	709	514	84
RTOR Reduction (vph)	83	0	0	0	0	22
Lane Group Flow (vph)	56	0	153	709	514	62
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	6.3		41.5	41.5	41.5	41.5
Effective Green, g (s)	6.3		41.5	41.5	41.5	41.5
Actuated g/C Ratio	0.11		0.74	0.74	0.74	0.74
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	188		629	1385	1385	1177
v/s Ratio Prot	c0.03			c0.38	0.28	
v/s Ratio Perm			0.18			0.04
v/c Ratio	0.30		0.24	0.51	0.37	0.05
Uniform Delay, d1	22.7		2.2	3.0	2.5	1.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9		0.9	1.4	0.8	0.1
Delay (s)	23.6		3.2	4.3	3.3	2.0
Level of Service	C		A	A	A	A
Approach Delay (s)	23.6			4.1	3.1	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			5.4	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.48			
Actuated Cycle Length (s)			55.8	Sum of lost time (s)		8.0
Intersection Capacity Utilization			53.8%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	682	155	0	0	0	0	589	181	3	155	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3414			1861	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3414			1836	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	269	682	155	0	0	0	0	589	181	3	155	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	65	0	0	0	0
Lane Group Flow (vph)	0	1056	0	0	0	0	0	705	0	0	158	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1138			612	
v/s Ratio Prot		c0.21						c0.21				
v/s Ratio Perm											0.09	
v/c Ratio		0.44						0.62			0.26	
Uniform Delay, d1		7.5						12.6			10.9	
Progression Factor		1.00						1.00			1.12	
Incremental Delay, d2		0.6						2.5			1.0	
Delay (s)		8.1						15.1			13.3	
Level of Service		A						B			B	
Approach Delay (s)		8.1			0.0			15.1			13.3	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		11.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		50.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	75	61	527	150	463	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.90	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					2724	1297		3147				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					2724	1297		3147				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	75	61	527	150	463	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	90	90	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	310	173	0	613	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1331	634		1049				
v/s Ratio Prot					0.11			c0.19				
v/s Ratio Perm						c0.13						
v/c Ratio					0.23	0.27		0.58				
Uniform Delay, d1					6.6	6.8		12.4				
Progression Factor					1.00	1.00		0.75				
Incremental Delay, d2					0.4	1.1		2.0				
Delay (s)					7.0	7.8		11.2				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.4			11.2			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.2				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			49.9%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	416	0	0	0	0	0	932	83	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5708						4521				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5708						4521				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	416	0	0	0	0	0	932	83	0	0	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	498	0	0	0	0	0	998	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2568						1808				
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.09										
v/c Ratio		0.19						0.55				
Uniform Delay, d1		9.9						13.9				
Progression Factor		1.26						1.00				
Incremental Delay, d2		0.2						1.2				
Delay (s)		12.7						15.1				
Level of Service		B						B				
Approach Delay (s)		12.7			0.0			15.1			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		14.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.36										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		69.1%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	421	19	20	623	436	75	45	56	390	16	137
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	421	19	20	623	436	75	45	56	390	16	137
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	510	643	436	176	543							
Volume Left (vph)	70	20	0	75	390							
Volume Right (vph)	19	0	436	56	137							
Hadj (s)	0.04	0.05	-0.67	-0.07	0.03							
Departure Headway (s)	8.3	8.6	7.9	9.5	8.2							
Degree Utilization, x	1.17	1.54	0.95	0.46	1.23							
Capacity (veh/h)	439	422	452	367	436							
Control Delay (s)	127.7	273.8	58.6	20.3	149.4							
Approach Delay (s)	127.7	186.9		20.3	149.4							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay	152.3											
Level of Service	F											
Intersection Capacity Utilization	108.6%				ICU Level of Service				G			
Analysis Period (min)	15											

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

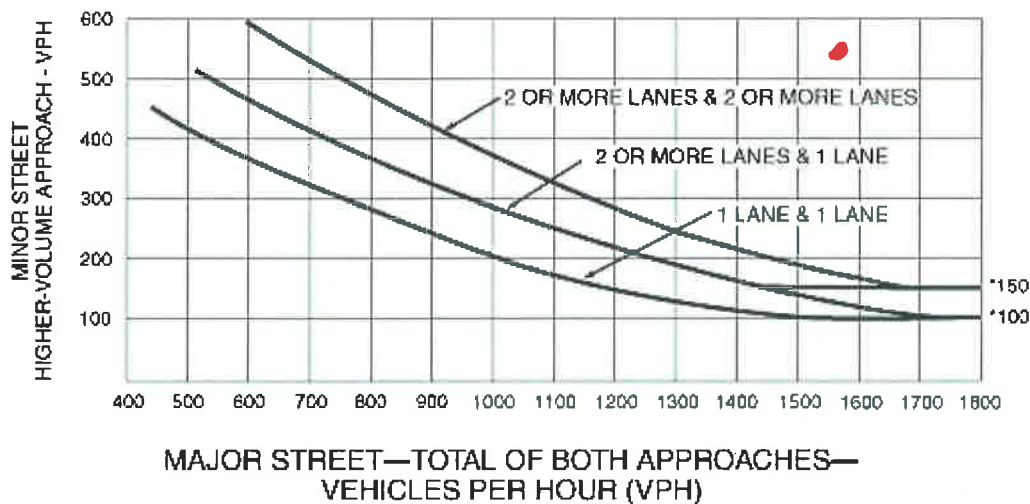
Intersection #30
5th Avenue / Embarcadero
Cumulative
AM Peak Hour

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1599/543

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	193	68	38	334	106	77	857	37	58	617	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	292	210	74	41	363	115	84	932	40	63	671	374
RTOR Reduction (vph)	0	0	50	0	31	0	0	3	0	0	0	315
Lane Group Flow (vph)	292	210	24	41	447	0	84	969	0	63	671	59
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Effective Green, g (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Actuated g/C Ratio	0.16	0.33	0.33	0.06	0.23		0.09	0.32		0.09	0.32	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	538	1155	516	103	778		164	1139		153	1123	248
v/s Ratio Prot	c0.09	0.06		0.02	c0.13		c0.05	c0.28		0.04	0.19	0.04
v/s Ratio Perm			0.02									
v/c Ratio	0.54	0.18	0.05	0.40	0.57		0.51	0.85		0.41	0.60	0.24
Uniform Delay, d1	30.5	18.9	18.1	35.6	26.9		33.9	24.7		33.9	22.5	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	2.5	1.0		2.7	8.1		1.8	2.3	0.5
Delay (s)	31.6	19.0	18.1	38.1	27.9		36.5	32.8		35.7	24.9	29.4
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		25.3			28.7			33.1			27.0	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			28.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			78.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			61.8%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	283	124	65	338	162	119	876	47	125	507	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	308	135	71	367	176	129	952	51	136	551	62
RTOR Reduction (vph)	0	46	0	0	59	0	0	0	35	0	0	43
Lane Group Flow (vph)	165	397	0	71	484	0	129	952	16	136	551	19
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Effective Green, g (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Actuated g/C Ratio	0.16	0.30		0.09	0.22		0.11	0.30	0.30	0.11	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	996		161	757		364	1079	482	373	1088	486
v/s Ratio Prot	c0.09	0.12		0.04	c0.14		0.04	c0.27		c0.04	0.16	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.58	0.40		0.44	0.64		0.35	0.88	0.03	0.36	0.51	0.04
Uniform Delay, d1	31.0	22.5		34.4	28.1		33.2	26.4	19.5	33.1	22.7	19.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.3		1.9	1.8		0.6	10.4	0.1	0.6	1.7	0.2
Delay (s)	33.9	22.8		36.3	29.8		33.8	36.9	19.6	33.7	24.4	19.6
Level of Service	C	C		D	C		C	D	B	C	C	B
Approach Delay (s)		25.8			30.6			35.8			25.7	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			30.4				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			80.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			64.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative Year 2035 No Project Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	273	14	8	161	39	42	97	22	45	20	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	53	273	14	8	161	39	42	97	22	45	20	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	200			287			532	602	144	510	590	100
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	200			287			532	602	144	510	590	100
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			89	75	97	87	95	96
cM capacity (veh/h)	1370			1272			383	394	878	341	400	936
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	190	150	88	120	161	45	13	47				
Volume Left	53	0	8	0	42	45	0	0				
Volume Right	0	14	0	39	22	0	0	40				
cSH	1370	1700	1272	1700	422	341	400	786				
Volume to Capacity	0.04	0.09	0.01	0.07	0.38	0.13	0.03	0.06				
Queue Length 95th (ft)	3	0	0	0	44	11	3	5				
Control Delay (s)	2.4	0.0	0.8	0.0	18.7	17.1	14.3	9.9				
Lane LOS	A		A		C	C	B	A				
Approach Delay (s)	1.3		0.3		18.7	13.6						
Approach LOS					C	B						
Intersection Summary												
Average Delay			6.1									
Intersection Capacity Utilization			40.9%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	471	13	0	0	0	0	176	24	105	73	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		1.00						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5062						3476		1770	5085	
Flt Permitted		1.00						1.00		0.63	1.00	
Satd. Flow (perm)		5062						3476		1166	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	471	13	0	0	0	0	176	24	105	73	0
RTOR Reduction (vph)	0	3	0	0	0	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	487	0	0	0	0	0	188	0	105	73	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		60.5						19.5		19.5	19.5	
Effective Green, g (s)		60.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.67						0.22		0.22	0.22	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3402						753		252	1101	
v/s Ratio Prot								0.05			0.01	
v/s Ratio Perm		0.10								c0.09		
v/c Ratio		0.14						0.25		0.42	0.07	
Uniform Delay, d1		5.3						29.2		30.4	28.0	
Progression Factor		1.00						1.00		0.85	0.84	
Incremental Delay, d2		0.1						0.8		5.0	0.1	
Delay (s)		5.4						30.0		30.8	23.6	
Level of Service		A						C		C	C	
Approach Delay (s)		5.4			0.0			30.0			27.9	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay		15.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.21										
Actuated Cycle Length (s)		90.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		33.0%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↑↑	↑		↓	↑			↑↑
Volume (vph)	0	0	0	23	156	272	17	33	156	0	0	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3517	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.66	1.00			1.00
Satd. Flow (perm)					3517	1583		1228	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	23	156	272	17	33	156	0	0	146
RTOR Reduction (vph)	0	0	0	0	0	239	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	179	33	0	50	156	0	0	146
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					10.9	10.9		70.1	70.1			70.1
Effective Green, g (s)					10.9	10.9		70.1	70.1			70.1
Actuated g/C Ratio					0.12	0.12		0.78	0.78			0.78
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					425	191		956	1451			2756
v/s Ratio Prot									c0.08			0.04
v/s Ratio Perm					0.05	0.02		0.04				
v/c Ratio					0.42	0.17		0.05	0.11			0.05
Uniform Delay, d1					36.6	35.5		2.3	2.4			2.3
Progression Factor					1.03	1.92		0.18	0.36			1.00
Incremental Delay, d2					0.7	0.4		0.1	0.1			0.0
Delay (s)					38.4	68.4		0.5	1.0			2.3
Level of Service					D	E		A	A			A
Approach Delay (s)		0.0			56.5				0.9			2.3
Approach LOS		A			E				A			A
Intersection Summary												
HCM 2000 Control Delay			31.1		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.15									
Actuated Cycle Length (s)			90.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			33.0%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	35
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	35
RTOR Reduction (vph)	8
Lane Group Flow (vph)	27
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	70.1
Effective Green, g (s)	70.1
Actuated g/C Ratio	0.78
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1232
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.02
Uniform Delay, d1	2.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	2.3
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	991	80	35	424	46	137	254	45	66	107	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.98		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5028		1770	5011		1770	1821		1770	3539	1583
Satd. Flow (perm)	881	5028		379	5011		1275	1821		924	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	991	80	35	424	46	137	254	45	66	107	74
RTOR Reduction (vph)	0	11	0	0	16	0	0	7	0	0	0	42
Lane Group Flow (vph)	132	1060	0	35	454	0	137	292	0	66	107	32
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Effective Green, g (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	404	2306		173	2299		547	781		396	1519	679
v/s Ratio Prot		c0.21			0.09			c0.16			0.03	
v/s Ratio Perm	0.15			0.09			0.11			0.07		0.02
v/c Ratio	0.33	0.46		0.20	0.20		0.25	0.37		0.17	0.07	0.05
Uniform Delay, d1	14.6	15.8		13.7	13.7		15.5	16.5		14.9	14.3	14.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.1	0.7		2.6	0.2		1.1	1.4		0.2	0.0	0.0
Delay (s)	16.8	16.4		16.3	13.9		16.6	17.8		15.1	14.3	14.1
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		16.5			14.1			17.5			14.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			15.9				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			85.0				Sum of lost time (s)			9.5		
Intersection Capacity Utilization			59.9%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		 	
Volume (vph)	194	613	1360	44	76	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5416	4555		2984	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5416	4555		2984	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	613	1360	44	76	41
RTOR Reduction (vph)	111	65	4	0	0	0
Lane Group Flow (vph)	44	587	1400	0	117	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	24.0	24.0	29.2		16.8	
Effective Green, g (s)	24.0	24.0	29.2		16.8	
Actuated g/C Ratio	0.28	0.28	0.34		0.20	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	364	1529	1564		589	
v/s Ratio Prot	0.03	c0.11	c0.31		c0.04	
v/s Ratio Perm						
v/c Ratio	0.12	0.38	0.90		0.20	
Uniform Delay, d1	22.7	24.6	26.4		28.5	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	0.7	8.4		0.2	
Delay (s)	23.3	25.3	34.8		28.6	
Level of Service	C	C	C		C	
Approach Delay (s)		24.9	34.8		28.6	
Approach LOS		C	C		C	
Intersection Summary						
HCM 2000 Control Delay			31.1		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.55			
Actuated Cycle Length (s)			85.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			81.1%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	249	802	36	1745	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2769	1297	1290	5431				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2769	1297	1290	5431				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	249	802	36	1745	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	15	17	10	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	649	386	15	1739	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					34.9	34.9	40.6	40.6				
Effective Green, g (s)					34.9	34.9	40.6	40.6				
Actuated g/C Ratio					0.41	0.41	0.48	0.48				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1136	532	616	2594				
v/s Ratio Prot					0.23							
v/s Ratio Perm						c0.30	0.01	0.32				
v/c Ratio					0.57	0.72	0.02	0.67				
Uniform Delay, d1					19.3	21.0	11.7	17.1				
Progression Factor					1.00	1.00	0.02	0.27				
Incremental Delay, d2					0.7	4.9	0.0	0.9				
Delay (s)					20.0	25.9	0.3	5.5				
Level of Service					B	C	A	A				
Approach Delay (s)		0.0			22.2			5.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.7		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			85.0		Sum of lost time (s)					9.5		
Intersection Capacity Utilization			70.3%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	24	82	14	12	35	64	6	34	17	310	217	84							
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
Hourly flow rate (vph)	24	82	14	12	35	64	6	34	17	310	217	84							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	120	111	57	419	193														
Volume Left (vph)	24	12	6	310	0														
Volume Right (vph)	14	64	17	0	84														
Hadj (s)	0.00	-0.29	-0.12	0.40	-0.27														
Departure Headway (s)	5.6	5.4	5.3	5.6	5.0														
Degree Utilization, x	0.19	0.17	0.08	0.66	0.27														
Capacity (veh/h)	591	615	633	625	709														
Control Delay (s)	9.9	9.4	8.8	17.5	8.5														
Approach Delay (s)	9.9	9.4	8.8	14.7															
Approach LOS	A	A	A	B															
Intersection Summary																			
Delay				13.0															
Level of Service				B															
Intersection Capacity Utilization				41.4%	ICU Level of Service	A													
Analysis Period (min)				15															

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	20	10	13	20	49	59	484	161	135	515	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	20	10	13	20	49	59	484	161	135	515	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	0.94	0.94	0.94	0.94	0.94		0.94					
vC, conflicting volume	1246	1590	300	1230	1552	322	599			645		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1138	1503	133	1121	1462	322	451			645		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	78	99	88	79	93	94			86		
cM capacity (veh/h)	98	92	840	107	97	673	1042			936		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	56	82	301	403	392	342						
Volume Left	26	13	59	0	135	0						
Volume Right	10	49	0	161	0	84						
cSH	113	205	1042	1700	936	1700						
Volume to Capacity	0.49	0.40	0.06	0.24	0.14	0.20						
Queue Length 95th (ft)	56	45	4	0	13	0						
Control Delay (s)	64.4	33.9	2.2	0.0	4.3	0.0						
Lane LOS	F	D	A		A							
Approach Delay (s)	64.4	33.9	0.9		2.3							
Approach LOS	F	D										
Intersection Summary												
Average Delay			5.5									
Intersection Capacity Utilization			58.3%		ICU Level of Service				B			
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #8
Broadway / 2nd Street
Cumulative
PM Peak Hour

PART A or **PART B** satisfied YES ☐ NO ☒

PART A

PART A satisfied YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

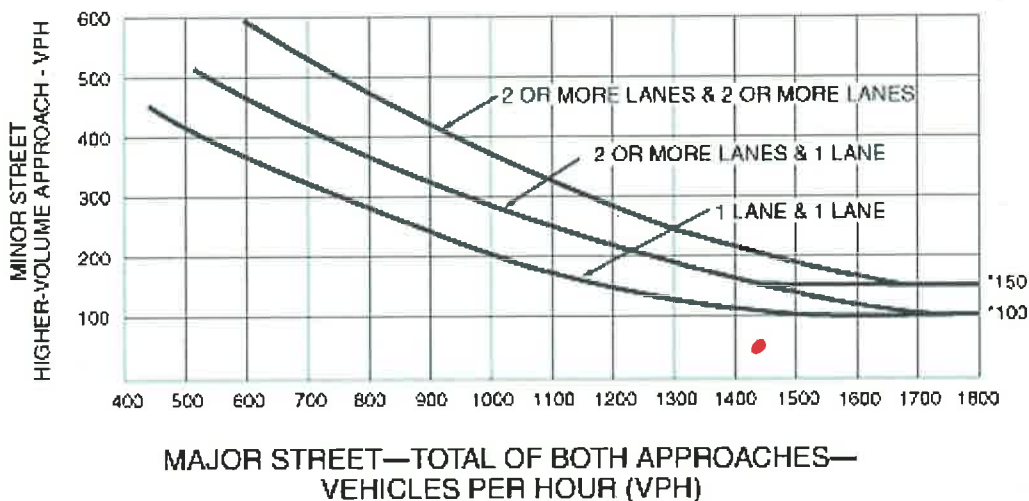
1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
 Yes ☐ No ☒ 1.0
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
 Yes ☐ No ☒ 50
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
 Yes ☒ No ☐ 1576

PART B

PART B satisfied YES ☐ NO ☒

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

1418/56

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	118	28	10	102	99	23	274	18	102	459	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.97			0.94			0.99			0.97	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1809			1741			3496			3396	
Flt Permitted	0.62	1.00			0.99			0.89			0.84	
Satd. Flow (perm)	1158	1809			1724			3124			2889	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	118	28	10	102	99	23	274	18	102	459	162
RTOR Reduction (vph)	0	11	0	0	42	0	0	6	0	0	36	0
Lane Group Flow (vph)	106	135	0	0	169	0	0	309	0	0	687	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	494	771			735			1416			1309	
v/s Ratio Prot		0.07										
v/s Ratio Perm	0.09				c0.10			0.10			c0.24	
v/c Ratio	0.21	0.17			0.23			0.22			0.53	
Uniform Delay, d1	13.6	13.3			13.7			12.4			14.7	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.5			0.7			0.4			1.5	
Delay (s)	14.6	13.8			14.4			12.8			16.2	
Level of Service	B	B			B			B			B	
Approach Delay (s)		14.1			14.4			12.8			16.2	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			14.9									
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			64.5%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	1162	328	84	0	0	0	0	408	446	879	378	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5		
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00		
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1610	3285	1583					3539	1583	3433	1863		
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1610	3285	1583					3539	1583	3433	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1162	328	84	0	0	0	0	408	446	879	378	0	
RTOR Reduction (vph)	0	0	56	0	0	0	0	0	135	0	0	0	
Lane Group Flow (vph)	581	909	28	0	0	0	0	408	311	879	378	0	
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA		
Protected Phases	4	4	4					2	2	1	6		
Permitted Phases													
Actuated Green, G (s)	30.5	30.5	30.5					24.5	24.5	21.5	49.5		
Effective Green, g (s)	30.5	30.5	30.5					24.5	24.5	21.5	49.5		
Actuated g/C Ratio	0.34	0.34	0.34					0.27	0.27	0.24	0.55		
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	545	1113	536					963	430	820	1024		
v/s Ratio Prot	c0.36	0.28	0.02					0.12	c0.20	c0.26	0.20		
v/s Ratio Perm													
v/c Ratio	1.07	1.02dl	0.05					0.42	0.72	1.07	0.37		
Uniform Delay, d1	29.8	27.2	20.0					26.9	29.7	34.2	11.4		
Progression Factor	0.91	0.91	0.79					1.00	1.00	1.35	1.98		
Incremental Delay, d2	57.3	4.7	0.0					1.4	10.2	50.3	0.2		
Delay (s)	84.5	29.5	15.9					28.3	39.8	96.5	22.9		
Level of Service	F	C	B					C	D	F	C		
Approach Delay (s)		49.1			0.0			34.3			74.3		
Approach LOS		D			A			C			E		
Intersection Summary													
HCM 2000 Control Delay			54.3									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.96										
Actuated Cycle Length (s)			90.0								13.5		Sum of lost time (s)
Intersection Capacity Utilization			134.0%								H		ICU Level of Service
Analysis Period (min)			15										
dl Defacto Left Lane. Recode with 1 though lane as a left lane.													
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	263	164	791	91	352	0	0	867	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4546	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4546	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	263	164	791	91	352	0	0	867	40
RTOR Reduction (vph)	0	0	0	0	0	250	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	263	164	541	91	352	0	0	902	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				36.6	36.6	36.6	15.2	45.4			26.2	
Effective Green, g (s)				36.6	36.6	36.6	15.2	45.4			26.2	
Actuated g/C Ratio				0.41	0.41	0.41	0.17	0.50			0.29	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				647	1295	579	269	1606			1323	
v/s Ratio Prot				0.17	0.05	c0.38	c0.06	0.11			c0.20	
v/s Ratio Perm												
v/c Ratio				0.41	0.13	0.93	0.34	0.22			0.68	
Uniform Delay, d1				19.0	16.7	25.5	33.0	12.4			28.2	
Progression Factor				1.00	1.00	1.00	0.82	1.01			1.00	
Incremental Delay, d2				0.4	0.0	22.3	0.4	0.2			2.9	
Delay (s)				19.4	16.7	47.8	27.6	12.7			31.1	
Level of Service				B	B	D	C	B			C	
Approach Delay (s)		0.0			37.5			15.7			31.1	
Approach LOS		A			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			31.5									
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			134.0%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	813	305	0	0	0	0	453	68	127	895	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		4532	1425					3123		1593	3185	
Flt Permitted		0.99	1.00					1.00		0.40	1.00	
Satd. Flow (perm)		4532	1425					3123		677	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	813	305	0	0	0	0	453	68	127	895	0
RTOR Reduction (vph)	0	0	57	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	1012	248	0	0	0	0	502	0	127	895	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		23.0	23.0					21.0		29.0	29.0	
Effective Green, g (s)		23.0	23.0					21.0		29.0	29.0	
Actuated g/C Ratio		0.38	0.38					0.35		0.48	0.48	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		1737	546					1093		388	1539	
v/s Ratio Prot		c0.22						0.16		0.02	c0.28	
v/s Ratio Perm			0.17							0.14		
v/c Ratio		0.58	0.45					0.46		0.33	0.58	
Uniform Delay, d1		14.7	13.8					15.1		11.5	11.1	
Progression Factor		1.00	1.00					1.00		0.70	0.76	
Incremental Delay, d2		0.5	0.6					1.4		0.4	1.2	
Delay (s)		15.2	14.4					16.5		8.4	9.7	
Level of Service		B	B					B		A	A	
Approach Delay (s)		15.0			0.0			16.5			9.6	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		69.5%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	206	692	127	124	458	0	0	783	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3095		1593	3185			4493	
Flt Permitted					0.99		0.23	1.00			1.00	
Satd. Flow (perm)					3095		390	3185			4493	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	206	692	127	124	458	0	0	783	109
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	30	0
Lane Group Flow (vph)	0	0	0	0	1006	0	124	458	0	0	862	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1341		249	1380			1347	
v/s Ratio Prot					c0.33		c0.03	0.14			c0.19	
v/s Ratio Perm							0.18					
v/c Ratio					0.75		0.50	0.33			0.64	
Uniform Delay, d1					14.3		17.0	11.3			18.2	
Progression Factor					1.00		0.46	0.49			1.54	
Incremental Delay, d2					3.9		6.2	0.6			1.4	
Delay (s)					18.2		14.0	6.1			29.4	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			18.2			7.8			29.4	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			19.8				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			69.5%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	328	103	5	582	175	2	556	27	0	988	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3071			3075			3163			3131	
Flt Permitted		0.94			0.95			0.95			1.00	
Satd. Flow (perm)		2901			2928			3010			3131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	328	103	5	582	175	2	556	27	0	988	127
RTOR Reduction (vph)	0	29	0	0	46	0	0	6	0	0	17	0
Lane Group Flow (vph)	0	408	0	0	716	0	0	579	0	0	1098	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		23.5			23.5			25.5			25.5	
Effective Green, g (s)		23.5			23.5			25.5			25.5	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1136			1146			1279			1330	
v/s Ratio Prot											c0.35	
v/s Ratio Perm		0.14			c0.24			0.19				
v/c Ratio		0.36			0.62			0.45			0.83	
Uniform Delay, d1		12.9			14.7			12.3			15.3	
Progression Factor		1.00			1.00			1.40			1.00	
Incremental Delay, d2		0.9			2.6			1.1			6.0	
Delay (s)		13.8			17.3			18.2			21.2	
Level of Service		B			B			B			C	
Approach Delay (s)		13.8			17.3			18.2			21.2	
Approach LOS		B			B			B			C	
Intersection Summary												
HCM 2000 Control Delay		18.5			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.73										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		72.1%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	87	39	18	83	0	0	0	0	9	21	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	9	21	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			254	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			254	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	97	98
cM capacity (veh/h)	1514			1460			663	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	20	28								
Volume Left	0	18	9	0								
Volume Right	39	0	0	18								
cSH	1700	1460	681	823								
Volume to Capacity	0.07	0.01	0.03	0.03								
Queue Length 95th (ft)	0	1	2	3								
Control Delay (s)	0.0	1.4	10.4	9.5								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	9.9									
Approach LOS			A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	189	12	19	188	0	0	0	0	12	18	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	189	12	19	188	0	0	0	0	12	18	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	188			201			504	421	195	421	427	188
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	188			201			504	421	195	421	427	188
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	98	96	91
cM capacity (veh/h)	1386			1371			421	517	846	537	513	854
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	201	207	21	83								
Volume Left	0	19	12	0								
Volume Right	12	0	0	74								
cSH	1700	1371	526	796								
Volume to Capacity	0.12	0.01	0.04	0.10								
Queue Length 95th (ft)	0	1	3	9								
Control Delay (s)	0.0	0.8	12.1	10.0								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	0.8	10.5									
Approach LOS			B									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			35.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	23	83	97	54	14	14
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	23	83	97	54	14	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		67	46	129	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		67	46	129	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	99		89	94	98	99
cM capacity (veh/h)	1623		891	834	751	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	23	83	151	14	14	
Volume Left	23	0	97	0	0	
Volume Right	0	83	0	0	14	
cSH	1623	1700	870	751	1085	
Volume to Capacity	0.01	0.05	0.17	0.02	0.01	
Queue Length 95th (ft)	1	0	16	1	1	
Control Delay (s)	7.2	0.0	10.0	9.9	8.4	
Lane LOS	A		B	A	A	
Approach Delay (s)	1.6		10.0	9.1		
Approach LOS			B	A		
Intersection Summary						
Average Delay			6.8			
Intersection Capacity Utilization			24.9%		ICU Level of Service	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	334	1529	0	0	0	0	0	678	1172	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4536						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4536						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	1529	0	0	0	0	0	678	1172	0	0	0
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	22	0	0	0
Lane Group Flow (vph)	0	1847	0	0	0	0	0	678	1150	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		34.0						16.0	34.0			
Effective Green, g (s)		34.0						16.0	34.0			
Actuated g/C Ratio		0.57						0.27	0.57			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2570						1220	1421			
v/s Ratio Prot								0.15				
v/s Ratio Perm		0.41							c0.46			
v/c Ratio		0.72						0.56	0.81			
Uniform Delay, d1		9.5						18.9	10.4			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		1.8						0.6	3.5			
Delay (s)		11.3						19.5	13.9			
Level of Service		B						B	B			
Approach Delay (s)		11.3			0.0			16.0			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.6						HCM 2000 Level of Service	B			
HCM 2000 Volume to Capacity ratio		0.82										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		94.2%						ICU Level of Service	F			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	622	369	0	0	0	0	581	39	106	82	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.96						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4811						1847		1770	1863	
Flt Permitted		0.99						1.00		0.16	1.00	
Satd. Flow (perm)		4811						1847		301	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	622	369	0	0	0	0	581	39	106	82	0
RTOR Reduction (vph)	0	96	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	1193	0	0	0	0	0	617	0	106	82	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2213						726		118	732	
v/s Ratio Prot								0.33			0.04	
v/s Ratio Perm		0.25								c0.35		
v/c Ratio		0.54						0.85		0.90	0.11	
Uniform Delay, d1		14.5						20.7		21.3	14.4	
Progression Factor		1.00						1.00		0.76	0.77	
Incremental Delay, d2		0.9						11.9		58.6	0.3	
Delay (s)		15.5						32.7		74.7	11.5	
Level of Service		B						C		E	B	
Approach Delay (s)		15.5			0.0			32.7			47.2	
Approach LOS		B			A			C			D	
Intersection Summary												
HCM 2000 Control Delay		23.4						HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio		0.70										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		99.8%						ICU Level of Service		F		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↱	↰	↰	↱			↱	↰
Volume (vph)	0	0	0	11	389	53	364	434	0	0	213	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				2.5	2.5	2.5	2.5	2.5			2.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.61	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1021	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	11	389	53	364	434	0	0	213	514
RTOR Reduction (vph)	0	0	0	0	0	37	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	11	389	16	364	434	0	0	213	514
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				22.5	22.5	22.5	47.5	47.5			47.5	75.0
Effective Green, g (s)				22.5	22.5	22.5	47.5	47.5			47.5	75.0
Actuated g/C Ratio				0.30	0.30	0.30	0.63	0.63			0.63	1.00
Clearance Time (s)				2.5	2.5	2.5	2.5	2.5			2.5	
Lane Grp Cap (vph)				477	502	427	646	1061			1061	1425
v/s Ratio Prot				0.01	c0.23			0.26			0.13	
v/s Ratio Perm						0.01	c0.36					0.36
v/c Ratio				0.02	0.77	0.04	0.56	0.41			0.20	0.36
Uniform Delay, d1				18.5	23.9	18.6	7.8	6.8			5.8	0.0
Progression Factor				1.00	1.00	1.00	0.55	0.59			1.00	1.00
Incremental Delay, d2				0.1	11.1	0.2	2.3	0.7			0.4	0.7
Delay (s)				18.6	35.1	18.7	6.6	4.8			6.2	0.7
Level of Service				B	D	B	A	A			A	A
Approach Delay (s)		0.0			32.8			5.6			2.3	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.6								B	
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			75.0								5.0	
Intersection Capacity Utilization			99.8%								F	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	41	1079	482	0	0	0	0	313	144	36	338	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	4.0					4.0			4.0		
Lane Util. Factor		0.86	0.86					1.00			1.00		
Frt		0.98	0.85					0.96			1.00		
Flt Protected		1.00	1.00					1.00			1.00		
Satd. Flow (prot)		4253	1226					1605			1668		
Flt Permitted		1.00	1.00					1.00			0.93		
Satd. Flow (perm)		4253	1226					1605			1567		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	41	1079	482	0	0	0	0	313	144	36	338	0	
RTOR Reduction (vph)	0	21	0	0	0	0	0	26	0	0	0	0	
Lane Group Flow (vph)	0	1224	357	0	0	0	0	431	0	0	374	0	
Turn Type	Split	NA	Free					NA		Perm	NA		
Protected Phases	4	4						2			6		
Permitted Phases			Free							6			
Actuated Green, G (s)		27.0	60.0					24.0			24.0		
Effective Green, g (s)		27.0	60.0					24.0			24.0		
Actuated g/C Ratio		0.45	1.00					0.40			0.40		
Clearance Time (s)		5.0						4.0			4.0		
Vehicle Extension (s)		3.0						3.0			3.0		
Lane Grp Cap (vph)		1913	1226					642			626		
v/s Ratio Prot		c0.29						c0.27					
v/s Ratio Perm			0.29								0.24		
v/c Ratio		0.64	0.29					0.67			0.60		
Uniform Delay, d1		12.7	0.0					14.8			14.2		
Progression Factor		1.00	1.00					1.00			1.00		
Incremental Delay, d2		1.7	0.6					5.5			4.2		
Delay (s)		14.4	0.6					20.3			18.4		
Level of Service		B	A					C			B		
Approach Delay (s)		11.3			0.0			20.3			18.4		
Approach LOS		B			A			C			B		
Intersection Summary													
HCM 2000 Control Delay			14.1									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.65										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	9.0
Intersection Capacity Utilization			88.7%									ICU Level of Service	E
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↙↑	
Volume (vph)	0	725	35	0	0	0	0	0	0	931	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3254	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3254	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	725	35	0	0	0	0	0	0	931	89	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	35	35	0
Lane Group Flow (vph)	0	749	0	0	0	0	0	0	0	430	520	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1556	
v/s Ratio Prot		c0.15										
v/s Ratio Perm										c0.27	0.16	
v/c Ratio		0.43								0.56	0.33	
Uniform Delay, d1		11.5								8.5	7.5	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.8								2.9	0.6	
Delay (s)		12.2								11.5	8.0	
Level of Service		B								B	A	
Approach Delay (s)		12.2			0.0			0.0			9.6	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			10.7				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.50									
Actuated Cycle Length (s)			46.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			41.1%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	18	210	0	0	0	0	0	1047	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					4559						4454	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					4559						4454	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	18	210	0	0	0	0	0	1047	227
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	76	0
Lane Group Flow (vph)	0	0	0	0	212	0	0	0	0	0	1198	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1519						2177	
v/s Ratio Prot					c0.05						c0.27	
v/s Ratio Perm												
v/c Ratio					0.14						0.55	
Uniform Delay, d1					10.5						8.0	
Progression Factor					0.89						1.00	
Incremental Delay, d2					0.2						1.0	
Delay (s)					9.5						9.0	
Level of Service					A						A	
Approach Delay (s)		0.0			9.5			0.0			9.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.1		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.38									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			41.1%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	1045	342	0	0	0	0	0	0	309	852	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.96										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5554										4517	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5554										4517	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1045	342	0	0	0	0	0	0	309	852	0	
RTOR Reduction (vph)	0	58	0	0	0	0	0	0	0	0	17	0	
Lane Group Flow (vph)	0	1329	0	0	0	0	0	0	0	0	1144	0	
Turn Type		NA								Perm	NA		
Protected Phases		4								6			
Permitted Phases										6			
Actuated Green, G (s)		24.0								28.0			
Effective Green, g (s)		24.0								28.0			
Actuated g/C Ratio		0.40								0.47			
Clearance Time (s)		4.0								4.0			
Vehicle Extension (s)		3.0								3.0			
Lane Grp Cap (vph)		2221								2107			
v/s Ratio Prot		c0.24											
v/s Ratio Perm										0.25			
v/c Ratio		0.60								0.54			
Uniform Delay, d1		14.2								11.4			
Progression Factor		0.38								1.00			
Incremental Delay, d2		1.0								1.0			
Delay (s)		6.4								12.4			
Level of Service		A								B			
Approach Delay (s)		6.4				0.0		0.0		12.4			
Approach LOS		A				A		A		B			
Intersection Summary													
HCM 2000 Control Delay			9.1		HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio			0.57										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			55.1%		ICU Level of Service				B				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	42	0	59	5	0	1	218	677	0	0	734	133
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	42	0	59	5	0	1	218	677	0	0	734	133
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)												563
pX, platoon unblocked												
vC, conflicting volume	1576	1914	434	1539	1980	338	867				677	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1576	1914	434	1539	1980	338	867				677	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	27	100	90	91	100	100	72				100	
cM capacity (veh/h)	58	48	570	55	44	657	772				911	
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	42	59	218	338	338	489	378					
Volume Left	42	0	218	0	0	0	0					
Volume Right	0	59	0	0	0	0	133					
cSH	58	570	772	1700	1700	1700	1700					
Volume to Capacity	0.73	0.10	0.28	0.20	0.20	0.29	0.22					
Queue Length 95th (ft)	78	9	29	0	0	0	0					
Control Delay (s)	161.7	12.0	11.5	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	74.3			2.8	0.0							
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #25
Oak Street / Embarcadero
Cumulative
PM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

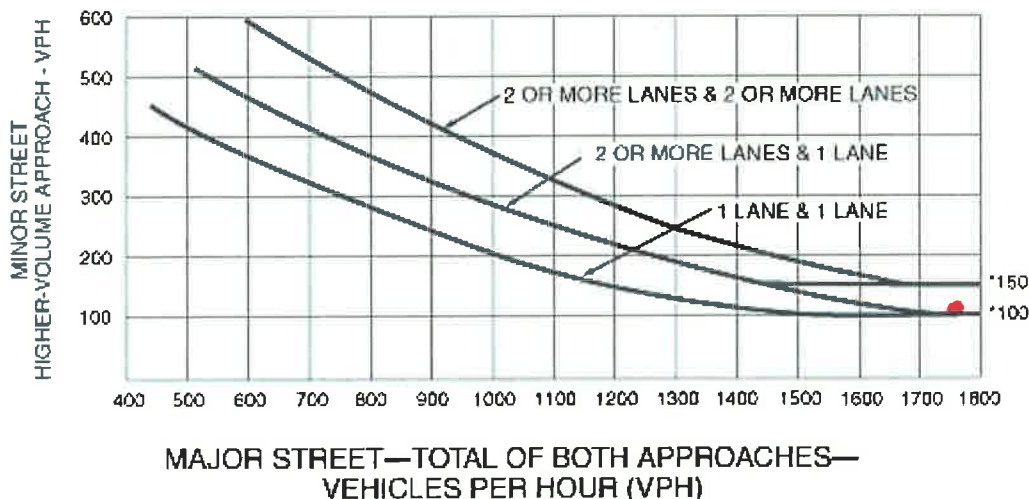
1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
 Yes ☐ No ☒ 2.08
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
 Yes ☐ No ☒ 101
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
 Yes ☒ No ☐ 1869

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	77	136	732	847	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1696		1770	1863	1863	1583
Flt Permitted	0.98		0.27	1.00	1.00	1.00
Satd. Flow (perm)	1696		497	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	79	77	136	732	847	189
RTOR Reduction (vph)	67	0	0	0	0	51
Lane Group Flow (vph)	89	0	136	732	847	138
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	7.1		40.4	40.4	40.4	40.4
Effective Green, g (s)	7.1		40.4	40.4	40.4	40.4
Actuated g/C Ratio	0.13		0.73	0.73	0.73	0.73
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	216		361	1356	1356	1152
v/s Ratio Prot	c0.05			0.39	c0.45	
v/s Ratio Perm			0.27			0.09
v/c Ratio	0.41		0.38	0.54	0.62	0.12
Uniform Delay, d1	22.3		2.8	3.4	3.8	2.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3		3.0	1.5	2.2	0.2
Delay (s)	23.6		5.8	4.9	5.9	2.5
Level of Service	C		A	A	A	A
Approach Delay (s)	23.6			5.1	5.3	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			6.6	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.59			
Actuated Cycle Length (s)			55.5	Sum of lost time (s)		8.0
Intersection Capacity Utilization			71.2%	ICU Level of Service		C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	1016	140	0	0	0	0	825	153	6	131	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.99						0.98			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4966						3456			1859	
Flt Permitted		0.99						1.00			0.95	
Satd. Flow (perm)		4966						3456			1776	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	246	1016	140	0	0	0	0	825	153	6	131	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	34	0	0	0	0
Lane Group Flow (vph)	0	1372	0	0	0	0	0	944	0	0	137	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1152			592	
v/s Ratio Prot		c0.28						c0.27				
v/s Ratio Perm											0.08	
v/c Ratio		0.57						0.82			0.23	
Uniform Delay, d1		8.1						13.8			10.8	
Progression Factor		1.00						1.00			1.16	
Incremental Delay, d2		1.0						6.6			0.9	
Delay (s)		9.1						20.3			13.4	
Level of Service		A						C			B	
Approach Delay (s)		9.1			0.0			20.3			13.4	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		13.7						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.67										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		62.1%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	68	85	506	163	586	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.91	0.85		1.00				
Flt Protected					0.99	1.00		0.99				
Satd. Flow (prot)					2743	1297		3151				
Flt Permitted					0.99	1.00		0.99				
Satd. Flow (perm)					2743	1297		3151				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	68	85	506	163	586	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	54	54	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	352	199	0	749	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1341	634		1050				
v/s Ratio Prot					0.13			c0.24				
v/s Ratio Perm						c0.15						
v/c Ratio					0.26	0.31		0.71				
Uniform Delay, d1					6.7	6.9		13.1				
Progression Factor					1.00	1.00		0.79				
Incremental Delay, d2					0.5	1.3		2.6				
Delay (s)					7.2	8.2		13.0				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.6			13.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.5				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			53.1%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	1035	0	0	0	0	0	1017	161	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5729						4483				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5729						4483				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	1035	0	0	0	0	0	1017	161	0	0	0
RTOR Reduction (vph)	0	19	0	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	0	1177	0	0	0	0	0	1148	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2578						1793				
v/s Ratio Prot								c0.26				
v/s Ratio Perm		0.21										
v/c Ratio		0.46						0.64				
Uniform Delay, d1		11.4						14.5				
Progression Factor		0.80						1.00				
Incremental Delay, d2		0.5						1.8				
Delay (s)		9.7						16.3				
Level of Service		A						B				
Approach Delay (s)		9.7			0.0			16.3			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.9						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.54										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		72.9%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	74	859	57	56	687	623	39	19	27	750	40	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	859	57	56	687	623	39	19	27	750	40	97
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	990	743	623	85	887							
Volume Left (vph)	74	56	0	39	750							
Volume Right (vph)	57	0	623	27	97							
Hadj (s)	0.01	0.07	-0.67	-0.06	0.14							
Departure Headway (s)	7.7	8.1	7.4	9.5	7.7							
Degree Utilization, x	2.11	1.68	1.28	0.22	1.90							
Capacity (veh/h)	477	448	496	374	476							
Control Delay (s)	525.0	333.2	162.2	15.2	430.2							
Approach Delay (s)	525.0	255.2		15.2	430.2							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			376.0									
Level of Service			F									
Intersection Capacity Utilization			158.2%	ICU Level of Service		H						
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

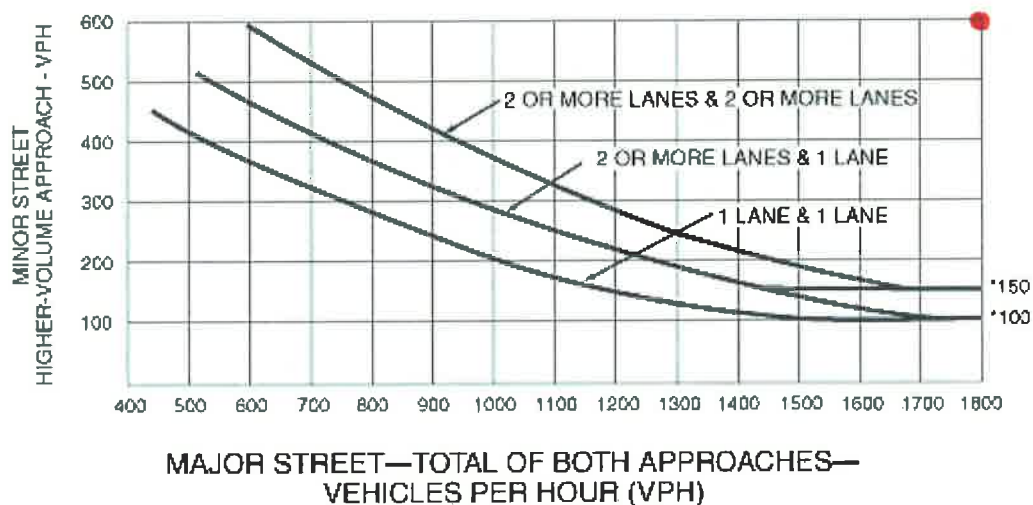
Intersection #30
5th Avenue / Embarcadero
Cumulative
PM Peak Hour

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



2358/887

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	216	59	166	581	113	33	526	49	89	768	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3494		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	235	64	180	632	123	36	572	53	97	835	180
RTOR Reduction (vph)	0	0	48	0	15	0	0	6	0	0	0	155
Lane Group Flow (vph)	263	235	16	180	740	0	36	619	0	97	835	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Effective Green, g (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Actuated g/C Ratio	0.14	0.24	0.24	0.16	0.27		0.06	0.30		0.09	0.34	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	865	387	290	927		97	1064		167	1217	222
v/s Ratio Prot	0.08	0.07		c0.10	c0.21		0.02	0.18		c0.05	c0.24	0.02
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.27	0.04	0.62	0.80		0.37	0.58		0.58	0.69	0.11
Uniform Delay, d1	33.4	25.5	24.0	32.4	28.4		38.0	24.5		36.2	23.5	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.0	4.1	4.8		2.4	2.3		5.1	3.2	0.2
Delay (s)	34.7	25.7	24.1	36.5	33.2		40.4	26.8		41.2	26.6	31.5
Level of Service	C	C	C	D	C		D	C		D	C	C
Approach Delay (s)		29.7			33.9			27.6			28.7	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			64.5%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	321	448	315	89	240	170	87	529	39	130	1133	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	487	342	97	261	185	95	575	42	141	1232	129
RTOR Reduction (vph)	0	115	0	0	141	0	0	0	30	0	0	70
Lane Group Flow (vph)	349	714	0	97	305	0	95	575	12	141	1232	59
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Effective Green, g (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Actuated g/C Ratio	0.24	0.31		0.10	0.17		0.07	0.30	0.30	0.10	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	1028		177	559		254	1050	469	359	1158	518
v/s Ratio Prot	c0.20	c0.21		0.05	0.09		0.03	0.16		c0.04	c0.35	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.82	0.69		0.55	0.55		0.37	0.55	0.03	0.39	1.06	0.11
Uniform Delay, d1	30.4	25.8		36.4	32.3		37.4	25.1	21.2	35.5	28.6	19.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	2.1		3.4	1.1		0.9	2.1	0.1	0.7	45.2	0.4
Delay (s)	41.9	27.8		39.8	33.4		38.4	27.1	21.3	36.2	73.8	20.4
Level of Service	D	C		D	C		D	C	C	D	E	C
Approach Delay (s)		32.0			34.6			28.3			65.7	
Approach LOS		C			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			44.5				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			84.9				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			77.9%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Residential Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	25	18	268	64	51	33	7	33	79	96
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	25	18	268	64	51	33	7	33	79	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	332			99			440	502	50	444	483	166
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	332			99			440	502	50	444	483	166
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			86	93	99	93	83	89
cM capacity (veh/h)	1224			1492			377	455	1008	455	467	849
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	62	152	198	91	33	53	122				
Volume Left	24	0	18	0	51	33	0	0				
Volume Right	0	25	0	64	7	0	0	96				
cSH	1224	1700	1492	1700	424	455	467	722				
Volume to Capacity	0.02	0.04	0.01	0.12	0.21	0.07	0.11	0.17				
Queue Length 95th (ft)	1	0	1	0	20	6	9	15				
Control Delay (s)	3.2	0.0	1.0	0.0	15.8	13.5	13.7	11.0				
Lane LOS	A		A		C	B	B	B				
Approach Delay (s)	1.6		0.4		15.8	12.1						
Approach LOS					C	B						
Intersection Summary												
Average Delay			5.6									
Intersection Capacity Utilization			37.1%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	203	15	0	0	0	0	110	24	63	221	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5029						3444		1770	5085	
Flt Permitted		1.00						1.00		0.67	1.00	
Satd. Flow (perm)		5029						3444		1242	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	203	15	0	0	0	0	110	24	63	221	0
RTOR Reduction (vph)	0	6	0	0	0	0	0	18	0	0	0	0
Lane Group Flow (vph)	0	216	0	0	0	0	0	116	0	63	221	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		45.5						19.5		19.5	19.5	
Effective Green, g (s)		45.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.61						0.26		0.26	0.26	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3050						895		322	1322	
v/s Ratio Prot								0.03			0.04	
v/s Ratio Perm		0.04								c0.05		
v/c Ratio		0.07						0.13		0.20	0.17	
Uniform Delay, d1		6.1						21.3		21.6	21.5	
Progression Factor		1.00						1.25		0.63	0.65	
Incremental Delay, d2		0.0						0.3		1.4	0.3	
Delay (s)		6.1						26.8		15.0	14.1	
Level of Service		A						C		B	B	
Approach Delay (s)		6.1			0.0			26.8			14.3	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		14.1						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.11										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		29.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	0	0	0	97	259	250	11	29	99	0	0	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3492	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.64	1.00			1.00
Satd. Flow (perm)					3492	1583		1188	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	97	259	250	11	29	99	0	0	181
RTOR Reduction (vph)	0	0	0	0	0	202	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	356	48	0	40	99	0	0	181
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					14.5	14.5		51.5	51.5			51.5
Effective Green, g (s)					14.5	14.5		51.5	51.5			51.5
Actuated g/C Ratio					0.19	0.19		0.69	0.69			0.69
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					675	306		815	1279			2430
v/s Ratio Prot									c0.05			0.05
v/s Ratio Perm					0.10	0.03		0.03				
v/c Ratio					0.53	0.16		0.05	0.08			0.07
Uniform Delay, d1					27.2	25.2		3.8	3.9			3.9
Progression Factor					0.84	0.53		0.52	0.54			0.81
Incremental Delay, d2					0.7	0.2		0.1	0.1			0.1
Delay (s)					23.6	13.6		2.1	2.2			3.2
Level of Service					C	B		A	A			A
Approach Delay (s)		0.0			19.5				2.2			3.2
Approach LOS		A			B				A			A
Intersection Summary												
HCM 2000 Control Delay			13.0		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			29.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	62
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	62
RTOR Reduction (vph)	19
Lane Group Flow (vph)	43
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	51.5
Effective Green, g (s)	51.5
Actuated g/C Ratio	0.69
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1086
v/s Ratio Prot	
v/s Ratio Perm	0.03
v/c Ratio	0.04
Uniform Delay, d1	3.8
Progression Factor	0.80
Incremental Delay, d2	0.1
Delay (s)	3.1
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	339	42	53	749	46	177	175	19	50	100	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.98		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5001		1770	5041		1770	1835		1770	3539	1583
Satd. Flow (perm)	451	5001		964	5041		1283	1835		1184	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	53	339	42	53	749	46	177	175	19	50	100	94
RTOR Reduction (vph)	0	29	0	0	13	0	0	4	0	0	0	37
Lane Group Flow (vph)	53	352	0	53	782	0	177	190	0	50	100	57
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	19.8	19.8		19.8	19.8		45.7	45.7		45.7	45.7	45.7
Effective Green, g (s)	19.8	19.8		19.8	19.8		45.7	45.7		45.7	45.7	45.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.61	0.61		0.61	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	119	1320		254	1330		781	1118		721	2156	964
v/s Ratio Prot		0.07			c0.16			0.10			0.03	
v/s Ratio Perm	0.12			0.05			c0.14			0.04		0.04
v/c Ratio	0.45	0.27		0.21	0.59		0.23	0.17		0.07	0.05	0.06
Uniform Delay, d1	23.0	21.9		21.5	24.0		6.6	6.4		6.0	5.9	5.9
Progression Factor	1.00	1.00		1.00	1.00		0.67	0.65		1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1		0.4	0.7		0.7	0.3		0.2	0.0	0.1
Delay (s)	25.7	22.0		21.9	24.7		5.1	4.5		6.2	5.9	6.1
Level of Service	C	C		C	C		A	A		A	A	A
Approach Delay (s)		22.4			24.5			4.8			6.0	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			17.8			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.34									
Actuated Cycle Length (s)			75.0			Sum of lost time (s)			9.5			
Intersection Capacity Utilization			48.4%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations						
Volume (vph)	159	883	479	31	92	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5427	4535		2959	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5427	4535		2959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	159	883	479	31	92	69
RTOR Reduction (vph)	75	34	6	0	0	0
Lane Group Flow (vph)	68	865	504	0	161	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	55.0	55.0	24.0		21.0	
Effective Green, g (s)	55.0	55.0	24.0		21.0	
Actuated g/C Ratio	0.48	0.48	0.21		0.18	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	616	2595	946		540	
v/s Ratio Prot	0.05	c0.16	c0.11		c0.05	
v/s Ratio Perm						
v/c Ratio	0.11	0.33	0.53		0.30	
Uniform Delay, d1	16.5	18.6	40.5		40.6	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.3	2.1		0.3	
Delay (s)	16.9	19.0	42.6		40.9	
Level of Service	B	B	D		D	
Approach Delay (s)		18.7	42.6		40.9	
Approach LOS		B	D		D	
Intersection Summary						
HCM 2000 Control Delay			27.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.37			
Actuated Cycle Length (s)			115.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			68.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	239	289	43	567	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2895	1297	1290	5430				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2895	1297	1290	5430				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	239	289	43	567	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	52	61	25	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	311	104	14	562	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					64.0	64.0	41.5	41.5				
Effective Green, g (s)					64.0	64.0	41.5	41.5				
Actuated g/C Ratio					0.56	0.56	0.36	0.36				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1611	721	465	1959				
v/s Ratio Prot					0.11							
v/s Ratio Perm						0.08	0.01	0.10				
v/c Ratio					0.19	0.14	0.03	0.29				
Uniform Delay, d1					12.7	12.3	23.7	26.2				
Progression Factor					1.00	1.00	1.95	1.18				
Incremental Delay, d2					0.3	0.4	0.1	0.3				
Delay (s)					12.9	12.7	46.4	31.3				
Level of Service					B	B	D	C				
Approach Delay (s)		0.0			12.9			32.2			0.0	
Approach LOS		A			B			C			A	
Intersection Summary												
HCM 2000 Control Delay			23.3									
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			115.0									
Intersection Capacity Utilization			46.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	71	51	8	138	113	13	54	0	330	151	66
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	8	71	51	8	138	113	13	54	0	330	151	66
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	130	259	67	406	142							
Volume Left (vph)	8	8	13	330	0							
Volume Right (vph)	51	113	0	0	66							
Hadj (s)	-0.19	-0.22	0.07	0.44	-0.29							
Departure Headway (s)	5.8	5.5	6.1	6.2	5.4							
Degree Utilization, x	0.21	0.40	0.11	0.70	0.21							
Capacity (veh/h)	562	608	521	568	642							
Control Delay (s)	10.4	12.1	9.9	20.9	8.7							
Approach Delay (s)	10.4	12.1	9.9	17.7								
Approach LOS	B	B	A	C								
Intersection Summary												
Delay				14.8								
Level of Service				B								
Intersection Capacity Utilization				48.2%	ICU Level of Service	A						
Analysis Period (min)				15								

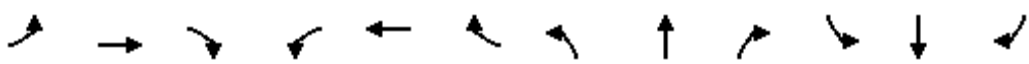
HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	2	7	22	26	16	405	33	103	429	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	2	2	7	22	26	16	405	33	103	429	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked												
vC, conflicting volume	930	1129	238	877	1136	219	477			438		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	930	1129	238	877	1136	219	477			438		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	100	97	88	97	99			91		
cM capacity (veh/h)	179	181	763	221	179	785	1082			1118		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	10	55	218	236	318	262						
Volume Left	6	7	16	0	103	0						
Volume Right	2	26	0	33	0	48						
cSH	212	293	1082	1700	1118	1700						
Volume to Capacity	0.05	0.19	0.01	0.14	0.09	0.15						
Queue Length 95th (ft)	4	17	1	0	8	0						
Control Delay (s)	22.8	20.1	0.7	0.0	3.4	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	22.8	20.1	0.4		1.9							
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			42.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	5	54	54	46	382	30	102	393	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.95			0.94			0.99			0.96	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1763			1739			3487			3379	
Flt Permitted	0.74	1.00			0.99			0.85			0.80	
Satd. Flow (perm)	1378	1763			1731			2973			2739	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	5	54	54	46	382	30	102	393	168
RTOR Reduction (vph)	0	12	0	0	31	0	0	7	0	0	44	0
Lane Group Flow (vph)	34	47	0	0	82	0	0	451	0	0	619	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	587	752			738			1347			1241	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.02				c0.05			0.15			c0.23	
v/c Ratio	0.06	0.06			0.11			0.34			0.50	
Uniform Delay, d1	12.6	12.7			12.9			13.2			14.5	
Progression Factor	1.00	1.00			1.00			1.00			0.71	
Incremental Delay, d2	0.2	0.2			0.3			0.7			1.4	
Delay (s)	12.8	12.8			13.2			13.9			11.7	
Level of Service	B	B			B			B			B	
Approach Delay (s)		12.8			13.2			13.9			11.7	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			12.7									
HCM 2000 Volume to Capacity ratio			0.31									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			53.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	931	179	99	0	0	0	0	329	553	548	381	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	931	179	99	0	0	0	0	329	553	548	381	0
RTOR Reduction (vph)	0	0	70	0	0	0	0	0	177	0	0	0
Lane Group Flow (vph)	465	645	29	0	0	0	0	329	376	548	381	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	21.6	21.6	21.6					23.5	23.5	16.4	43.4	
Effective Green, g (s)	21.6	21.6	21.6					23.5	23.5	16.4	43.4	
Actuated g/C Ratio	0.29	0.29	0.29					0.31	0.31	0.22	0.58	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	463	942	455					1108	496	750	1078	
v/s Ratio Prot	c0.29	0.20	0.02					0.09	c0.24	c0.16	0.20	
v/s Ratio Perm												
v/c Ratio	1.00	0.96dl	0.06					0.30	0.76	0.73	0.35	
Uniform Delay, d1	26.7	23.7	19.4					19.5	23.2	27.2	8.4	
Progression Factor	0.94	0.94	0.85					1.24	1.45	1.18	1.56	
Incremental Delay, d2	42.9	2.1	0.1					0.7	10.3	3.5	0.2	
Delay (s)	68.1	24.3	16.6					24.9	44.0	35.7	13.3	
Level of Service	E	C	B					C	D	D	B	
Approach Delay (s)		40.5			0.0			36.9			26.5	
Approach LOS		D			A			D			C	
Intersection Summary												
HCM 2000 Control Delay			35.1		HCM 2000 Level of Service				D			
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				13.5			
Intersection Capacity Utilization			111.8%		ICU Level of Service				H			
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	335	160	533	69	482	0	0	374	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4502	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4502	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	335	160	533	69	482	0	0	374	46
RTOR Reduction (vph)	0	0	0	0	0	216	0	0	0	0	19	0
Lane Group Flow (vph)	0	0	0	335	160	317	69	482	0	0	401	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				27.0	27.0	27.0	15.2	40.0			20.8	
Effective Green, g (s)				27.0	27.0	27.0	15.2	40.0			20.8	
Actuated g/C Ratio				0.36	0.36	0.36	0.20	0.53			0.28	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				573	1146	513	322	1698			1248	
v/s Ratio Prot				0.21	0.05	c0.22	0.04	c0.15			c0.09	
v/s Ratio Perm												
v/c Ratio				0.58	0.14	0.62	0.21	0.28			0.32	
Uniform Delay, d1				19.5	16.2	19.7	24.9	9.6			21.5	
Progression Factor				1.00	1.00	1.00	0.62	0.80			1.00	
Incremental Delay, d2				1.5	0.1	2.2	0.2	0.3			0.7	
Delay (s)				21.0	16.2	22.0	15.7	7.9			22.2	
Level of Service				C	B	C	B	A			C	
Approach Delay (s)		0.0			20.7			8.9			22.2	
Approach LOS		A			C			A			C	
Intersection Summary												
HCM 2000 Control Delay			17.8									
HCM 2000 Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			111.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	632	130	0	0	0	0	424	83	105	544	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		4550	1425					3107		1593	3185	
Flt Permitted		0.99	1.00					1.00		0.41	1.00	
Satd. Flow (perm)		4550	1425					3107		693	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	632	130	0	0	0	0	424	83	105	544	0
RTOR Reduction (vph)	0	0	80	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	0	716	50	0	0	0	0	480	0	105	544	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		23.0	23.0					21.0		29.0	29.0	
Effective Green, g (s)		23.0	23.0					21.0		29.0	29.0	
Actuated g/C Ratio		0.38	0.38					0.35		0.48	0.48	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		1744	546					1087		394	1539	
v/s Ratio Prot		c0.16						c0.15		0.02	c0.17	
v/s Ratio Perm			0.03							0.11		
v/c Ratio		0.41	0.09					0.44		0.27	0.35	
Uniform Delay, d1		13.5	11.8					15.0		11.0	9.7	
Progression Factor		1.00	1.00					1.00		0.49	0.48	
Incremental Delay, d2		0.2	0.1					1.3		0.3	0.6	
Delay (s)		13.7	11.9					16.3		5.7	5.3	
Level of Service		B	B					B		A	A	
Approach Delay (s)		13.4			0.0			16.3			5.3	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.5						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		54.2%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	150	500	106	98	376	0	0	481	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3088		1593	3185			4522	
Flt Permitted					0.99		0.43	1.00			1.00	
Satd. Flow (perm)					3088		717	3185			4522	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	150	500	106	98	376	0	0	481	42
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	734	0	98	376	0	0	506	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1338		369	1380			1356	
v/s Ratio Prot					c0.24		0.02	c0.12			c0.11	
v/s Ratio Perm							0.10					
v/c Ratio					0.55		0.27	0.27			0.37	
Uniform Delay, d1					12.6		11.7	10.9			16.6	
Progression Factor					1.00		0.28	0.34			1.90	
Incremental Delay, d2					1.6		1.6	0.4			0.7	
Delay (s)					14.3		4.9	4.1			32.1	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			14.3			4.3			32.1	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			16.9				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			54.2%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	278	84	1	327	111	0	367	29	0	647	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.97			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3074			3064			3150			3124	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		2926			2924			3150			3124	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	278	84	1	327	111	0	367	29	0	647	95
RTOR Reduction (vph)	0	47	0	0	55	0	0	10	0	0	20	0
Lane Group Flow (vph)	0	318	0	0	384	0	0	386	0	0	723	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.5			21.5			27.5			27.5	
Effective Green, g (s)		21.5			21.5			27.5			27.5	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1048			1047			1443			1431	
v/s Ratio Prot								0.12			c0.23	
v/s Ratio Perm		0.11			c0.13							
v/c Ratio		0.30			0.37			0.27			0.50	
Uniform Delay, d1		13.9			14.2			10.0			11.5	
Progression Factor		1.00			1.00			1.37			1.00	
Incremental Delay, d2		0.7			1.0			0.4			1.3	
Delay (s)		14.6			15.2			14.1			12.7	
Level of Service		B			B			B			B	
Approach Delay (s)		14.6			15.2			14.1			12.7	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay		13.9			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		47.2%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	5	21	0	0	0	0	14	14	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	5	21	0	0	0	0	14	14	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	21			41			84	64	34	64	72	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			41			84	64	34	64	72	21
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	98	98	99
cM capacity (veh/h)	1595			1568			879	824	1040	927	816	1056
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	26	21	19								
Volume Left	0	5	14	0								
Volume Right	15	0	0	12								
cSH	1700	1568	887	953								
Volume to Capacity	0.02	0.00	0.02	0.02								
Queue Length 95th (ft)	0	0	2	2								
Control Delay (s)	0.0	1.4	9.2	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.0									
Approach LOS			A									
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			15.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	28	13	15	35	0	0	0	0	7	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	28	13	15	35	0	0	0	0	7	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	35			41			103	100	34	100	106	35
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			41			103	100	34	100	106	35
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1576			1568			867	783	1039	876	777	1038
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	50	8	4								
Volume Left	0	15	7	0								
Volume Right	13	0	0	2								
cSH	1700	1568	856	907								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	2.2	9.2	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	2.2	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			19.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	75	157	195	77	54	74
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	75	157	195	77	54	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		251	150	307	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		251	150	307	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	95		67	89	91	93
cM capacity (veh/h)	1623		587	707	579	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	75	157	272	54	74	
Volume Left	75	0	195	0	0	
Volume Right	0	157	0	0	74	
cSH	1623	1700	616	579	1085	
Volume to Capacity	0.05	0.09	0.44	0.09	0.07	
Queue Length 95th (ft)	4	0	56	8	5	
Control Delay (s)	7.3	0.0	15.4	11.9	8.6	
Lane LOS	A		C	B	A	
Approach Delay (s)	2.4		15.4	10.0		
Approach LOS			C	A		
Intersection Summary						
Average Delay			9.5			
Intersection Capacity Utilization			32.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	691	0	0	0	0	0	613	1376	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4533						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4533						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	691	0	0	0	0	0	613	1376	0	0	0
RTOR Reduction (vph)	0	67	0	0	0	0	0	0	131	0	0	0
Lane Group Flow (vph)	0	789	0	0	0	0	0	613	1245	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		27.0						23.0	29.0			
Effective Green, g (s)		27.0						23.0	29.0			
Actuated g/C Ratio		0.45						0.38	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2039						1754	1212			
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.17							c0.50			
v/c Ratio		0.39						0.35	1.03			
Uniform Delay, d1		11.0						13.2	15.5			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.6						0.6	33.0			
Delay (s)		11.5						13.7	48.5			
Level of Service		B						B	D			
Approach Delay (s)		11.5			0.0			37.8			0.0	
Approach LOS		B			A			D			A	
Intersection Summary												
HCM 2000 Control Delay		29.9						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.78										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		100.0%						ICU Level of Service	F			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	438	491	0	0	0	0	259	41	66	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4724						1828		1770	1863	
Flt Permitted		0.99						1.00		0.51	1.00	
Satd. Flow (perm)		4724						1828		944	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	311	438	491	0	0	0	0	259	41	66	89	0
RTOR Reduction (vph)	0	158	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	1082	0	0	0	0	0	292	0	66	89	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2173						719		371	732	
v/s Ratio Prot								c0.16			0.05	
v/s Ratio Perm		0.23								0.07		
v/c Ratio		0.50						0.41		0.18	0.12	
Uniform Delay, d1		14.2						16.4		14.8	14.5	
Progression Factor		1.00						1.00		0.67	0.69	
Incremental Delay, d2		0.8						1.7		1.0	0.3	
Delay (s)		15.0						18.1		11.0	10.4	
Level of Service		B						B		B	B	
Approach Delay (s)		15.0			0.0			18.1			10.7	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.2						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.46										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		79.4%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	311	56	321	281	0	0	196	1408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.63	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1064	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	311	56	321	281	0	0	196	1408
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	311	15	321	281	0	0	196	1408
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	631	994			994	1425
v/s Ratio Prot				0.00	0.19			0.17			0.12	
v/s Ratio Perm						0.01	0.30					c0.99
v/c Ratio				0.00	0.71	0.04	0.51	0.28			0.20	0.99
Uniform Delay, d1				20.6	25.2	20.7	8.9	7.5			7.0	0.0
Progression Factor				1.00	1.00	1.00	1.18	1.16			1.00	1.00
Incremental Delay, d2				0.0	9.7	0.2	2.6	0.6			0.4	21.2
Delay (s)				20.6	34.9	20.9	13.1	9.3			7.5	21.2
Level of Service				C	C	C	B	A			A	C
Approach Delay (s)		0.0			32.7			11.3			19.5	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			19.5									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			1.16									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 11.0
Intersection Capacity Utilization			79.4%									ICU Level of Service D
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	529	1328	0	0	0	0	354	90	28	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3969	1226					1631			1670	
Flt Permitted		1.00	1.00					1.00			0.96	
Satd. Flow (perm)		3969	1226					1631			1605	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	529	1328	0	0	0	0	354	90	28	356	0
RTOR Reduction (vph)	0	316	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	915	664	0	0	0	0	429	0	0	384	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		19.0	60.0					32.0			32.0	
Effective Green, g (s)		19.0	60.0					32.0			32.0	
Actuated g/C Ratio		0.32	1.00					0.53			0.53	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1256	1226					869			856	
v/s Ratio Prot		c0.23						0.26				
v/s Ratio Perm			c0.54								0.24	
v/c Ratio		0.89dr	0.54					0.49			0.45	
Uniform Delay, d1		18.2	0.0					8.9			8.6	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		3.7	1.7					2.0			1.7	
Delay (s)		21.9	1.7					10.9			10.3	
Level of Service		C	A					B			B	
Approach Delay (s)		14.9			0.0			10.9			10.3	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.6									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			60.0								9.0	
Intersection Capacity Utilization			77.2%									ICU Level of Service D
Analysis Period (min)			15									
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	547	22	0	0	0	0	0	0	589	134	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5056								1610	3278	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5056								1610	3278	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	547	22	0	0	0	0	0	0	589	134	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	71	71	0
Lane Group Flow (vph)	0	560	0	0	0	0	0	0	0	223	358	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1567	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.14	0.11	
v/c Ratio		0.32								0.29	0.23	
Uniform Delay, d1		11.0								7.3	7.0	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								0.9	0.3	
Delay (s)		11.5								8.2	7.4	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			7.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.4			HCM 2000 Level of Service			A				
HCM 2000 Volume to Capacity ratio		0.30										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		33.2%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					  						  	
Volume (vph)	0	0	0	34	180	0	0	0	0	0	738	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4541						4406	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4541						4406	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	34	180	0	0	0	0	0	738	244
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	0	0	0	191	0	0	0	0	0	857	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1513						2154	
v/s Ratio Prot					c0.04						c0.19	
v/s Ratio Perm												
v/c Ratio					0.13						0.40	
Uniform Delay, d1					10.4						7.3	
Progression Factor					0.99						1.00	
Incremental Delay, d2					0.1						0.6	
Delay (s)					10.5						7.8	
Level of Service					B						A	
Approach Delay (s)		0.0			10.5			0.0			7.8	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			33.2%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	435	254	0	0	0	0	0	0	142	707	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0										4.0
Lane Util. Factor		0.86										0.91
Frt		0.94										1.00
Flt Protected		1.00										0.99
Satd. Flow (prot)		5448										4539
Flt Permitted		1.00										0.99
Satd. Flow (perm)		5448										4539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	435	254	0	0	0	0	0	0	142	707	0
RTOR Reduction (vph)	0	98	0	0	0	0	0	0	0	0	51	0
Lane Group Flow (vph)	0	591	0	0	0	0	0	0	0	0	798	0
Turn Type		NA								Perm	NA	
Protected Phases		4								6		
Permitted Phases										6		
Actuated Green, G (s)		23.0								29.0		
Effective Green, g (s)		23.0								29.0		
Actuated g/C Ratio		0.38								0.48		
Clearance Time (s)		4.0								4.0		
Vehicle Extension (s)		3.0								3.0		
Lane Grp Cap (vph)		2088								2193		
v/s Ratio Prot		c0.11										
v/s Ratio Perm										0.18		
v/c Ratio		0.28								0.36		
Uniform Delay, d1		12.8								9.7		
Progression Factor		0.52								1.00		
Incremental Delay, d2		0.2								0.5		
Delay (s)		6.8								10.2		
Level of Service		A								B		
Approach Delay (s)		6.8				0.0		0.0		10.2		
Approach LOS		A				A		A		B		
Intersection Summary												
HCM 2000 Control Delay		8.7			HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio		0.33										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)				8.0			
Intersection Capacity Utilization		40.0%			ICU Level of Service				A			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations								 			 		
Volume (veh/h)	197	0	79	2	0	0	382	579	0	0	325	164	
Sign Control	Stop		Stop		Stop		Free		Free		Free		
Grade	0%		0%		0%		0%		0%		0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly flow rate (vph)	197	0	79	2	0	0	382	579	0	0	325	164	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None						None						
Median storage (veh)													
Upstream signal (ft)	563												
pX, platoon unblocked													
vC, conflicting volume	1460	1750	244	1584	1832	290	489	579					
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	1460	1750	244	1584	1832	290	489	579					
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1	4.1					
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	2.2					
p0 queue free %	0	100	90	96	100	100	64	100					
cM capacity (veh/h)	65	55	756	47	49	707	1070	991					
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2						
Volume Total	197	79	382	290	290	217	272						
Volume Left	197	0	382	0	0	0	0						
Volume Right	0	79	0	0	0	0	164						
cSH	65	756	1070	1700	1700	1700	1700						
Volume to Capacity	3.02	0.10	0.36	0.17	0.17	0.13	0.16						
Queue Length 95th (ft)	Err	9	41	0	0	0	0						
Control Delay (s)	Err	10.3	10.2	0.0	0.0	0.0	0.0						
Lane LOS	F	B	B										
Approach Delay (s)	7139.9	4.1		0.0									
Approach LOS	F												
Intersection Summary													
Average Delay			Err										
Intersection Capacity Utilization			Err%		ICU Level of Service				H				
Analysis Period (min)			15										

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #25
Oak Street / Embarcadero
Cumulative plus Residential
AM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

547.4

Yes ☒ No ☐

276

Yes ☒ No ☐

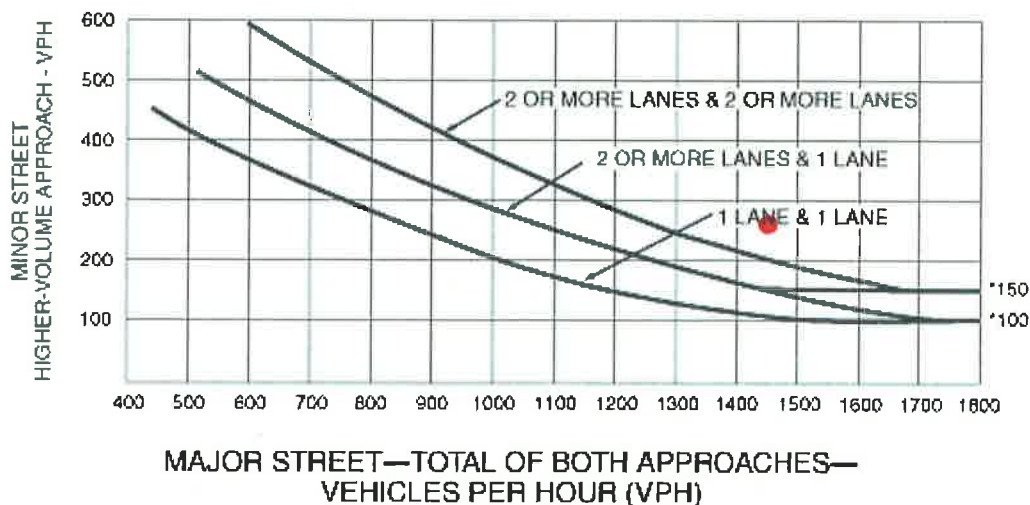
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PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1450 / 276

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	71	94	153	821	571	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1683		1770	1863	1863	1583
Flt Permitted	0.98		0.42	1.00	1.00	1.00
Satd. Flow (perm)	1683		775	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	71	94	153	821	571	98
RTOR Reduction (vph)	82	0	0	0	0	27
Lane Group Flow (vph)	83	0	153	821	571	71
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	7.0		39.7	39.7	39.7	39.7
Effective Green, g (s)	7.0		39.7	39.7	39.7	39.7
Actuated g/C Ratio	0.13		0.73	0.73	0.73	0.73
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	215		562	1352	1352	1148
v/s Ratio Prot	c0.05			c0.44	0.31	
v/s Ratio Perm			0.20			0.04
v/c Ratio	0.39		0.27	0.61	0.42	0.06
Uniform Delay, d1	21.9		2.6	3.7	3.0	2.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2		1.2	2.0	1.0	0.1
Delay (s)	23.0		3.8	5.7	3.9	2.3
Level of Service	C		A	A	A	A
Approach Delay (s)	23.0			5.4	3.7	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			6.4	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.57			
Actuated Cycle Length (s)			54.7	Sum of lost time (s)		8.0
Intersection Capacity Utilization			59.6%	ICU Level of Service		B
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	682	155	0	0	0	0	624	284	3	225	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.95			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3373			1862	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3373			1840	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	269	682	155	0	0	0	0	624	284	3	225	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	117	0	0	0	0
Lane Group Flow (vph)	0	1056	0	0	0	0	0	791	0	0	228	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1124			613	
v/s Ratio Prot		c0.21						c0.23				
v/s Ratio Perm											0.12	
v/c Ratio		0.44						0.70			0.37	
Uniform Delay, d1		7.5						13.1			11.4	
Progression Factor		1.00						1.00			1.18	
Incremental Delay, d2		0.6						3.7			1.7	
Delay (s)		8.1						16.8			15.2	
Level of Service		A						B			B	
Approach Delay (s)		8.1			0.0			16.8			15.2	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		12.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.55										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		55.1%						ICU Level of Service		B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	145	61	527	150	498	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.92	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2752	1297		3149				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2752	1297		3149				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	145	61	527	150	498	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	78	78	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	392	185	0	648	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1345	634		1049				
v/s Ratio Prot					0.14			c0.21				
v/s Ratio Perm						c0.14						
v/c Ratio					0.29	0.29		0.62				
Uniform Delay, d1					6.9	6.9		12.6				
Progression Factor					1.00	1.00		0.82				
Incremental Delay, d2					0.5	1.2		2.1				
Delay (s)					7.4	8.0		12.5				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.6			12.5			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.9				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			51.0%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	416	0	0	0	0	0	948	102	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5708						4510				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5708						4510				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	416	0	0	0	0	0	948	102	0	0	0
RTOR Reduction (vph)	0	25	0	0	0	0	0	22	0	0	0	0
Lane Group Flow (vph)	0	499	0	0	0	0	0	1028	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2568						1804				
v/s Ratio Prot								c0.23				
v/s Ratio Perm		0.09										
v/c Ratio		0.19						0.57				
Uniform Delay, d1		9.9						14.0				
Progression Factor		1.26						1.00				
Incremental Delay, d2		0.2						1.3				
Delay (s)		12.7						15.3				
Level of Service		B						B				
Approach Delay (s)		12.7			0.0			15.3			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		14.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		70.0%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	431	19	20	649	436	75	45	56	390	16	137
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	431	19	20	649	436	75	45	56	390	16	137
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	520	669	436	176	543							
Volume Left (vph)	70	20	0	75	390							
Volume Right (vph)	19	0	436	56	137							
Hadj (s)	0.04	0.05	-0.67	-0.07	0.03							
Departure Headway (s)	8.3	8.6	7.9	9.5	8.2							
Degree Utilization, x	1.20	1.60	0.95	0.46	1.23							
Capacity (veh/h)	439	423	452	367	436							
Control Delay (s)	136.2	300.5	58.6	20.3	149.4							
Approach Delay (s)	136.2	205.0		20.3	149.4							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			163.0									
Level of Service			F									
Intersection Capacity Utilization			110.4%		ICU Level of Service					H		
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

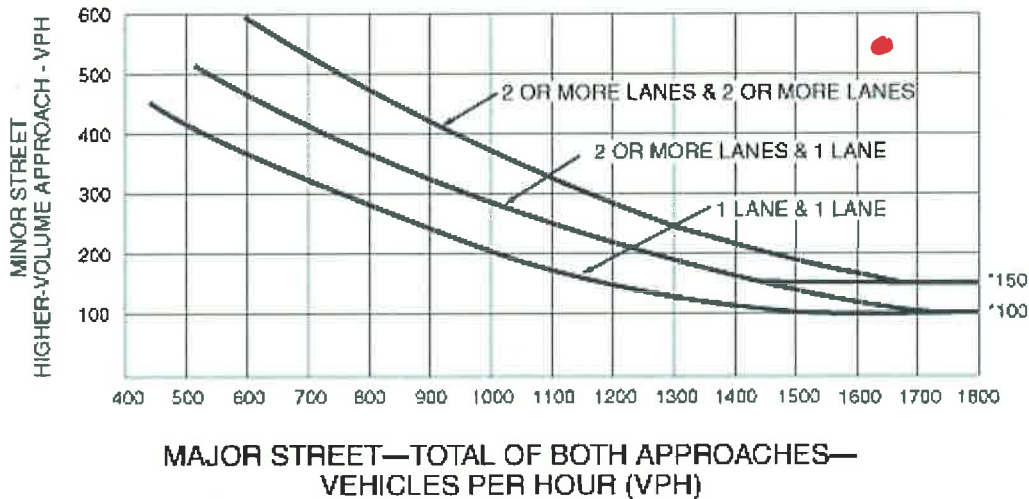
Intersection #30
5th Avenue / Embarcadero
Cumulative plus Residential
AM Peak Hour

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	193	68	38	334	106	77	862	37	58	637	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Flt Protected	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3517		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	292	210	74	41	363	115	84	937	40	63	692	374
RTOR Reduction (vph)	0	0	50	0	31	0	0	3	0	0	0	315
Lane Group Flow (vph)	292	210	24	41	447	0	84	974	0	63	692	59
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Effective Green, g (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Actuated g/C Ratio	0.16	0.33	0.33	0.06	0.23		0.09	0.32		0.09	0.32	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	538	1155	516	103	778		164	1139		153	1123	248
v/s Ratio Prot	c0.09	0.06		0.02	c0.13		c0.05	c0.28		0.04	0.20	0.04
v/s Ratio Perm			0.02									
v/c Ratio	0.54	0.18	0.05	0.40	0.57		0.51	0.86		0.41	0.62	0.24
Uniform Delay, d1	30.5	18.9	18.1	35.6	26.9		33.9	24.8		33.9	22.7	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	2.5	1.0		2.7	8.3		1.8	2.5	0.5
Delay (s)	31.6	19.0	18.1	38.1	27.9		36.5	33.1		35.7	25.2	29.4
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		25.3			28.7			33.3			27.2	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			29.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			78.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			62.0%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	283	124	65	338	162	119	897	47	125	511	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	308	135	71	367	176	129	975	51	136	555	62
RTOR Reduction (vph)	0	46	0	0	59	0	0	0	35	0	0	43
Lane Group Flow (vph)	165	397	0	71	484	0	129	975	16	136	555	19
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Effective Green, g (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Actuated g/C Ratio	0.16	0.30		0.09	0.22		0.11	0.30	0.30	0.11	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	996		161	757		364	1079	482	373	1088	486
v/s Ratio Prot	c0.09	0.12		0.04	c0.14		0.04	c0.28		c0.04	0.16	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.58	0.40		0.44	0.64		0.35	0.90	0.03	0.36	0.51	0.04
Uniform Delay, d1	31.0	22.5		34.4	28.1		33.2	26.7	19.5	33.1	22.8	19.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.3		1.9	1.8		0.6	12.2	0.1	0.6	1.7	0.2
Delay (s)	33.9	22.8		36.3	29.8		33.8	38.9	19.6	33.7	24.5	19.6
Level of Service	C	C		D	C		C	D	B	C	C	B
Approach Delay (s)		25.8			30.6			37.5			25.7	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			31.0			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			64.6%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Residential Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	277	22	16	166	101	50	138	30	50	61	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	53	277	22	16	166	101	50	138	30	50	61	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	267			299			580	693	150	592	654	134
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	267			299			580	693	150	592	654	134
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			84	60	97	80	83	96
cM capacity (veh/h)	1294			1259			318	346	870	250	364	891
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	192	160	99	184	218	50	41	60				
Volume Left	53	0	16	0	50	50	0	0				
Volume Right	0	22	0	101	30	0	0	40				
cSH	1294	1700	1259	1700	369	250	364	599				
Volume to Capacity	0.04	0.09	0.01	0.11	0.59	0.20	0.11	0.10				
Queue Length 95th (ft)	3	0	1	0	91	18	9	8				
Control Delay (s)	2.4	0.0	1.4	0.0	27.9	23.0	16.1	11.7				
Lane LOS	A		A		D	C	C	B				
Approach Delay (s)	1.3		0.5		27.9	16.6						
Approach LOS					D	C						
Intersection Summary												
Average Delay			9.2									
Intersection Capacity Utilization			46.7%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	488	22	0	0	0	0	271	32	105	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5050						3483		1770	5085	
Flt Permitted		1.00						1.00		0.50	1.00	
Satd. Flow (perm)		5050						3483		929	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	488	22	0	0	0	0	271	32	105	110	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	511	0	0	0	0	0	293	0	105	110	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		60.5						19.5		19.5	19.5	
Effective Green, g (s)		60.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.67						0.22		0.22	0.22	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3394						754		201	1101	
v/s Ratio Prot								0.08			0.02	
v/s Ratio Perm		0.10								c0.11		
v/c Ratio		0.15						0.39		0.52	0.10	
Uniform Delay, d1		5.4						30.1		31.1	28.2	
Progression Factor		1.00						1.00		0.86	0.85	
Incremental Delay, d2		0.1						1.5		9.4	0.2	
Delay (s)		5.5						31.7		36.2	24.2	
Level of Service		A						C		D	C	
Approach Delay (s)		5.5			0.0			31.7			30.1	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay		18.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.24										
Actuated Cycle Length (s)		90.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		37.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					 			 				 
Volume (vph)	0	0	0	32	156	284	17	42	242	0	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.64	1.00			1.00
Satd. Flow (perm)					3509	1583		1196	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	32	156	284	17	42	242	0	0	174
RTOR Reduction (vph)	0	0	0	0	0	248	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	188	36	0	59	242	0	0	174
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					11.3	11.3		69.7	69.7			69.7
Effective Green, g (s)					11.3	11.3		69.7	69.7			69.7
Actuated g/C Ratio					0.13	0.13		0.77	0.77			0.77
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					440	198		926	1442			2740
v/s Ratio Prot									c0.13			0.05
v/s Ratio Perm					0.05	0.02		0.05				
v/c Ratio					0.43	0.18		0.06	0.17			0.06
Uniform Delay, d1					36.4	35.2		2.4	2.6			2.4
Progression Factor					1.04	2.05		0.13	0.48			1.00
Incremental Delay, d2					0.7	0.4		0.1	0.2			0.0
Delay (s)					38.5	72.7		0.4	1.5			2.5
Level of Service					D	E		A	A			A
Approach Delay (s)		0.0			59.1				1.3			2.4
Approach LOS		A			E				A			A
Intersection Summary												
HCM 2000 Control Delay			29.3		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			90.0	Sum of lost time (s)				9.0				
Intersection Capacity Utilization			37.8%	ICU Level of Service				A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	35
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	35
RTOR Reduction (vph)	8
Lane Group Flow (vph)	27
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	69.7
Effective Green, g (s)	69.7
Actuated g/C Ratio	0.77
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1225
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.02
Uniform Delay, d1	2.3
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	2.4
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	991	89	44	424	46	216	263	54	66	116	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5022		1770	5011		1770	1815		1770	3539	1583
Flt Permitted	0.47	1.00		0.20	1.00		0.68	1.00		0.48	1.00	1.00
Satd. Flow (perm)	881	5022		374	5011		1264	1815		888	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	991	89	44	424	46	216	263	54	66	116	74
RTOR Reduction (vph)	0	12	0	0	16	0	0	9	0	0	0	42
Lane Group Flow (vph)	132	1068	0	44	454	0	216	308	0	66	116	32
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Effective Green, g (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	404	2304		171	2299		542	779		381	1519	679
v/s Ratio Prot		c0.21			0.09			0.17			0.03	
v/s Ratio Perm	0.15			0.12			c0.17			0.07		0.02
v/c Ratio	0.33	0.46		0.26	0.20		0.40	0.40		0.17	0.08	0.05
Uniform Delay, d1	14.6	15.8		14.1	13.7		16.7	16.7		14.9	14.3	14.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.1	0.7		3.6	0.2		2.2	1.5		0.2	0.0	0.0
Delay (s)	16.8	16.5		17.7	13.9		18.9	18.2		15.2	14.3	14.1
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		16.5			14.2			18.5			14.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.2			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			85.0			Sum of lost time (s)			9.5			
Intersection Capacity Utilization			61.1%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	194	613	1384	44	76	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5416	4556		2984	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5416	4556		2984	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	613	1384	44	76	41
RTOR Reduction (vph)	111	65	3	0	0	0
Lane Group Flow (vph)	44	587	1425	0	117	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	24.0	24.0	29.2		16.8	
Effective Green, g (s)	24.0	24.0	29.2		16.8	
Actuated g/C Ratio	0.28	0.28	0.34		0.20	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	364	1529	1565		589	
v/s Ratio Prot	0.03	c0.11	c0.31		c0.04	
v/s Ratio Perm						
v/c Ratio	0.12	0.38	0.91		0.20	
Uniform Delay, d1	22.7	24.6	26.6		28.5	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	0.7	9.5		0.2	
Delay (s)	23.3	25.3	36.1		28.6	
Level of Service	C	C	D		C	
Approach Delay (s)		24.9	36.1		28.6	
Approach LOS		C	D		C	
Intersection Summary						
HCM 2000 Control Delay			31.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.56			
Actuated Cycle Length (s)			85.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			81.6%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	249	802	36	1769	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2769	1297	1290	5431				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2769	1297	1290	5431				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	249	802	36	1769	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	15	17	10	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	649	386	15	1763	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					34.9	34.9	40.6	40.6				
Effective Green, g (s)					34.9	34.9	40.6	40.6				
Actuated g/C Ratio					0.41	0.41	0.48	0.48				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1136	532	616	2594				
v/s Ratio Prot					0.23							
v/s Ratio Perm						c0.30	0.01	0.32				
v/c Ratio					0.57	0.72	0.02	0.68				
Uniform Delay, d1					19.3	21.0	11.7	17.2				
Progression Factor					1.00	1.00	0.02	0.27				
Incremental Delay, d2					0.7	4.9	0.0	1.0				
Delay (s)					20.0	25.9	0.3	5.5				
Level of Service					B	C	A	A				
Approach Delay (s)		0.0			22.2			5.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.6		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			85.0		Sum of lost time (s)					9.5		
Intersection Capacity Utilization			70.6%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	179	63	12	120	97	30	146	17	333	268	85
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	179	63	12	120	97	30	146	17	333	268	85
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	269	229	193	467	219							
Volume Left (vph)	27	12	30	333	0							
Volume Right (vph)	63	97	17	0	85							
Hadj (s)	-0.09	-0.21	0.01	0.39	-0.24							
Departure Headway (s)	6.9	6.9	7.1	7.1	6.4							
Degree Utilization, x	0.51	0.44	0.38	0.92	0.39							
Capacity (veh/h)	494	496	469	504	550							
Control Delay (s)	16.9	15.1	14.3	47.3	12.3							
Approach Delay (s)	16.9	15.1	14.3	36.1								
Approach LOS	C	C	B	E								
Intersection Summary												
Delay			25.8									
Level of Service			D									
Intersection Capacity Utilization			63.0%		ICU Level of Service				B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	20	10	13	20	49	59	632	161	135	591	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	20	10	13	20	49	59	632	161	135	591	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											288	
pX, platoon unblocked	0.90	0.90	0.90	0.90	0.90		0.90					
vC, conflicting volume	1396	1814	338	1416	1776	396	675			793		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1219	1683	44	1241	1640	396	418			793		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	65	70	99	83	72	92	94			84		
cM capacity (veh/h)	74	66	916	76	70	603	1024			824		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	56	82	375	477	430	380						
Volume Left	26	13	59	0	135	0						
Volume Right	10	49	0	161	0	84						
cSH	84	153	1024	1700	824	1700						
Volume to Capacity	0.66	0.54	0.06	0.28	0.16	0.22						
Queue Length 95th (ft)	78	67	5	0	15	0						
Control Delay (s)	107.6	53.1	1.9	0.0	4.6	0.0						
Lane LOS	F	F	A		A							
Approach Delay (s)	107.6	53.1	0.8		2.4							
Approach LOS	F	F										
Intersection Summary												
Average Delay			7.3									
Intersection Capacity Utilization			64.5%		ICU Level of Service				C			
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #8
Broadway / 2nd Street
Cumulative plus Residential
PM Peak Hour

PART A or PART B satisfied YES ☐ NO ☒

PART A

PART A satisfied YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and

Yes ☐ No ☒

2.4

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

Yes ☐ No ☒

56

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

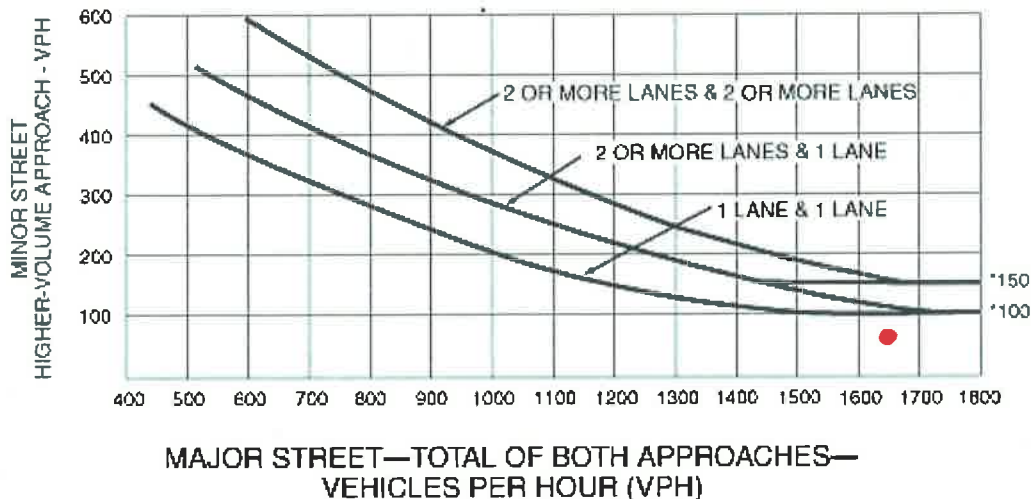
1,985

PART B

PART B satisfied YES ☐ NO ☒

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1662 / 82

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	135	28	10	120	116	53	392	18	106	535	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.97			0.94			0.99			0.97	
Flt Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1815			1741			3499			3410	
Flt Permitted	0.58	1.00			0.99			0.81			0.82	
Satd. Flow (perm)	1089	1815			1725			2849			2803	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	135	28	10	120	116	53	392	18	106	535	162
RTOR Reduction (vph)	0	10	0	0	43	0	0	4	0	0	30	0
Lane Group Flow (vph)	106	153	0	0	203	0	0	459	0	0	773	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	464	774			736			1291			1270	
v/s Ratio Prot		0.08										
v/s Ratio Perm	0.10				c0.12			0.16			c0.28	
v/c Ratio	0.23	0.20			0.28			0.36			0.61	
Uniform Delay, d1	13.7	13.5			14.0			13.4			15.5	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.1	0.6			0.9			0.8			2.2	
Delay (s)	14.8	14.0			14.9			14.1			17.7	
Level of Service	B	B			B			B			B	
Approach Delay (s)		14.3			14.9			14.1			17.7	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			15.9									
HCM 2000 Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			73.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1162	340	84	0	0	0	0	457	534	879	458	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3287	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3287	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1162	340	84	0	0	0	0	457	534	879	458	0
RTOR Reduction (vph)	0	0	56	0	0	0	0	0	128	0	0	0
Lane Group Flow (vph)	581	921	28	0	0	0	0	457	406	879	458	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	30.5	30.5	30.5					24.5	24.5	21.5	49.5	
Effective Green, g (s)	30.5	30.5	30.5					24.5	24.5	21.5	49.5	
Actuated g/C Ratio	0.34	0.34	0.34					0.27	0.27	0.24	0.55	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	545	1113	536					963	430	820	1024	
v/s Ratio Prot	c0.36	0.28	0.02					0.13	c0.26	c0.26	0.25	
v/s Ratio Perm												
v/c Ratio	1.07	1.02dl	0.05					0.47	0.94	1.07	0.45	
Uniform Delay, d1	29.8	27.3	20.0					27.4	32.1	34.2	12.1	
Progression Factor	0.91	0.90	0.77					1.00	1.00	1.33	1.92	
Incremental Delay, d2	57.3	5.2	0.0					1.7	31.4	49.7	0.3	
Delay (s)	84.4	29.9	15.5					29.0	63.5	95.2	23.4	
Level of Service	F	C	B					C	E	F	C	
Approach Delay (s)		49.1			0.0			47.6			70.6	
Approach LOS		D			A			D			E	
Intersection Summary												
HCM 2000 Control Delay			56.1									
HCM 2000 Volume to Capacity ratio			1.03									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			140.4%									
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	306	175	791	103	389	0	0	904	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4547	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4547	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	306	175	791	103	389	0	0	904	41
RTOR Reduction (vph)	0	0	0	0	0	222	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	306	175	569	103	389	0	0	940	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				37.6	37.6	37.6	15.2	44.4			25.2	
Effective Green, g (s)				37.6	37.6	37.6	15.2	44.4			25.2	
Actuated g/C Ratio				0.42	0.42	0.42	0.17	0.49			0.28	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				665	1330	595	269	1571			1273	
v/s Ratio Prot				0.19	0.05	c0.40	c0.06	0.12			c0.21	
v/s Ratio Perm												
v/c Ratio				0.46	0.13	0.96	0.38	0.25			0.74	
Uniform Delay, d1				18.9	16.1	25.4	33.2	13.2			29.4	
Progression Factor				1.00	1.00	1.00	0.85	1.03			1.00	
Incremental Delay, d2				0.5	0.0	26.2	0.5	0.2			3.9	
Delay (s)				19.4	16.2	51.6	28.8	13.7			33.3	
Level of Service				B	B	D	C	B			C	
Approach Delay (s)		0.0			39.0			16.9			33.3	
Approach LOS		A			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			33.0									
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			140.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	813	314	0	0	0	0	482	77	127	924	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		4532	1425					3119		1593	3185	
Flt Permitted		0.99	1.00					1.00		0.38	1.00	
Satd. Flow (perm)		4532	1425					3119		634	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	813	314	0	0	0	0	482	77	127	924	0
RTOR Reduction (vph)	0	0	56	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	1012	258	0	0	0	0	538	0	127	924	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		23.0	23.0					21.0		29.0	29.0	
Effective Green, g (s)		23.0	23.0					21.0		29.0	29.0	
Actuated g/C Ratio		0.38	0.38					0.35		0.48	0.48	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		1737	546					1091		370	1539	
v/s Ratio Prot		c0.22						0.17		0.02	c0.29	
v/s Ratio Perm			0.18							0.14		
v/c Ratio		0.58	0.47					0.49		0.34	0.60	
Uniform Delay, d1		14.7	13.9					15.3		12.1	11.3	
Progression Factor		1.00	1.00					1.00		0.71	0.77	
Incremental Delay, d2		0.5	0.6					1.6		0.4	1.3	
Delay (s)		15.2	14.6					16.9		9.0	10.0	
Level of Service		B	B					B		A	B	
Approach Delay (s)		15.0			0.0			16.9			9.9	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.64										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		70.8%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔↔↔	
Volume (vph)	0	0	0	215	692	127	133	478	0	0	802	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3094		1593	3185			4495	
Flt Permitted					0.99		0.22	1.00			1.00	
Satd. Flow (perm)					3094		377	3185			4495	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	215	692	127	133	478	0	0	802	109
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	1016	0	133	478	0	0	882	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1340		244	1380			1348	
v/s Ratio Prot					c0.33		c0.04	0.15			c0.20	
v/s Ratio Perm							0.20					
v/c Ratio					0.76		0.55	0.35			0.65	
Uniform Delay, d1					14.3		17.7	11.3			18.3	
Progression Factor					1.00		0.46	0.49			1.53	
Incremental Delay, d2					4.1		7.4	0.6			1.5	
Delay (s)					18.4		15.5	6.1			29.5	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			18.4			8.2			29.5	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			19.9				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)		12.0			
Intersection Capacity Utilization			70.8%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	328	112	5	582	175	2	566	36	0	998	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3063			3075			3156			3131	
Flt Permitted		0.94			0.95			0.95			1.00	
Satd. Flow (perm)		2894			2928			3004			3131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	328	112	5	582	175	2	566	36	0	998	127
RTOR Reduction (vph)	0	29	0	0	46	0	0	7	0	0	16	0
Lane Group Flow (vph)	0	417	0	0	716	0	0	597	0	0	1109	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		23.5			23.5			25.5			25.5	
Effective Green, g (s)		23.5			23.5			25.5			25.5	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1133			1146			1276			1330	
v/s Ratio Prot											c0.35	
v/s Ratio Perm		0.14			c0.24			0.20				
v/c Ratio		0.37			0.62			0.47			0.83	
Uniform Delay, d1		13.0			14.7			12.4			15.4	
Progression Factor		1.00			1.00			1.41			1.00	
Incremental Delay, d2		0.9			2.6			1.1			6.3	
Delay (s)		13.9			17.3			18.6			21.6	
Level of Service		B			B			B			C	
Approach Delay (s)		13.9			17.3			18.6			21.6	
Approach LOS		B			B			B			C	
Intersection Summary												
HCM 2000 Control Delay			18.7			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			60.0			Sum of lost time (s)			11.0			
Intersection Capacity Utilization			72.4%			ICU Level of Service				C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	9	29	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	9	29	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			258	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			258	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	96	98
cM capacity (veh/h)	1514			1460			653	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	24	32								
Volume Left	0	18	9	0								
Volume Right	39	0	0	18								
cSH	1700	1460	675	797								
Volume to Capacity	0.07	0.01	0.03	0.04								
Queue Length 95th (ft)	0	1	3	3								
Control Delay (s)	0.0	1.4	10.5	9.7								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.0									
Approach LOS			B									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	210	12	27	223	0	0	0	0	12	18	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	210	12	27	223	0	0	0	0	12	18	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	223			222			576	493	216	493	499	223
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	223			222			576	493	216	493	499	223
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	96	91
cM capacity (veh/h)	1346			1347			372	467	824	479	464	817
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	222	250	21	83								
Volume Left	0	27	12	0								
Volume Right	12	0	0	74								
cSH	1700	1347	472	754								
Volume to Capacity	0.13	0.02	0.04	0.11								
Queue Length 95th (ft)	0	2	3	9								
Control Delay (s)	0.0	1.0	13.0	10.4								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.0	10.9									
Approach LOS			B									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			38.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	103	210	217	125	112	63
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	103	210	217	125	112	63
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		325	206	416	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		325	206	416	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	94		53	81	77	94
cM capacity (veh/h)	1623		465	647	494	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	103	210	342	112	63	
Volume Left	103	0	217	0	0	
Volume Right	0	210	0	0	63	
cSH	1623	1700	519	494	1085	
Volume to Capacity	0.06	0.12	0.66	0.23	0.06	
Queue Length 95th (ft)	5	0	119	22	5	
Control Delay (s)	7.4	0.0	24.4	14.4	8.5	
Lane LOS	A		C	B	A	
Approach Delay (s)	2.4		24.4	12.3		
Approach LOS			C	B		
Intersection Summary						
Average Delay			13.6			
Intersection Capacity Utilization			37.6%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	334	1529	0	0	0	0	0	686	1212	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4536						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4536						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	1529	0	0	0	0	0	686	1212	0	0	0
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	22	0	0	0
Lane Group Flow (vph)	0	1847	0	0	0	0	0	686	1190	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		34.0						16.0	34.0			
Effective Green, g (s)		34.0						16.0	34.0			
Actuated g/C Ratio		0.57						0.27	0.57			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2570						1220	1421			
v/s Ratio Prot								0.15				
v/s Ratio Perm		0.41							c0.47			
v/c Ratio		0.72						0.56	0.84			
Uniform Delay, d1		9.5						19.0	10.7			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		1.8						1.9	6.0			
Delay (s)		11.3						20.9	16.8			
Level of Service		B						C	B			
Approach Delay (s)		11.3			0.0			18.2			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		14.8						HCM 2000 Level of Service	B			
HCM 2000 Volume to Capacity ratio		0.84										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		95.8%						ICU Level of Service	F			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	622	462	0	0	0	0	670	39	106	122	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4779						1849		1770	1863	
Flt Permitted		0.99						1.00		0.14	1.00	
Satd. Flow (perm)		4779						1849		253	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	622	462	0	0	0	0	670	39	106	122	0
RTOR Reduction (vph)	0	120	0	0	0	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	1262	0	0	0	0	0	706	0	106	122	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2198						727		99	732	
v/s Ratio Prot								0.38			0.07	
v/s Ratio Perm		0.26								c0.42		
v/c Ratio		0.57						0.97		1.07	0.17	
Uniform Delay, d1		14.9						22.3		22.8	14.8	
Progression Factor		1.00						1.00		0.69	0.70	
Incremental Delay, d2		1.1						27.0		110.0	0.5	
Delay (s)		16.0						49.4		125.7	10.8	
Level of Service		B						D		F	B	
Approach Delay (s)		16.0			0.0			49.4			64.2	
Approach LOS		B			A			D			E	
Intersection Summary												
HCM 2000 Control Delay		30.9						HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio		0.80										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		111.4%						ICU Level of Service		H		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	11	389	53	453	434	0	0	253	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.60	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1010	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	11	389	53	453	434	0	0	253	514
RTOR Reduction (vph)	0	0	0	0	0	39	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	11	389	14	453	434	0	0	253	514
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	599	994			994	1425
v/s Ratio Prot				0.01	c0.23			0.26			0.15	
v/s Ratio Perm						0.01	c0.45					0.36
v/c Ratio				0.03	0.89	0.04	0.76	0.44			0.25	0.36
Uniform Delay, d1				20.7	26.8	20.7	11.2	8.4			7.3	0.0
Progression Factor				1.00	1.00	1.00	0.60	0.60			1.00	1.00
Incremental Delay, d2				0.1	23.4	0.2	4.4	0.7			0.6	0.7
Delay (s)				20.8	50.2	20.9	11.1	5.7			7.9	0.7
Level of Service				C	D	C	B	A			A	A
Approach Delay (s)		0.0			46.1			8.5			3.1	
Approach LOS		A			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			14.6		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					11.0		
Intersection Capacity Utilization			111.4%		ICU Level of Service					H		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	1079	522	0	0	0	0	313	144	36	338	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.98	0.85					0.96			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		4241	1226					1605			1668	
Flt Permitted		1.00	1.00					1.00			0.93	
Satd. Flow (perm)		4241	1226					1605			1567	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	41	1079	522	0	0	0	0	313	144	36	338	0
RTOR Reduction (vph)	0	26	0	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	1245	371	0	0	0	0	431	0	0	374	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		27.0	60.0					24.0			24.0	
Effective Green, g (s)		27.0	60.0					24.0			24.0	
Actuated g/C Ratio		0.45	1.00					0.40			0.40	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1908	1226					642			626	
v/s Ratio Prot		c0.29						c0.27				
v/s Ratio Perm			0.30								0.24	
v/c Ratio		0.65	0.30					0.67			0.60	
Uniform Delay, d1		12.8	0.0					14.8			14.2	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		1.8	0.6					5.5			4.2	
Delay (s)		14.6	0.6					20.3			18.4	
Level of Service		B	A					C			B	
Approach Delay (s)		11.4			0.0			20.3			18.4	
Approach LOS		B			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			14.1									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			60.0									Sum of lost time (s) 9.0
Intersection Capacity Utilization			89.0%									ICU Level of Service E
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	725	35	0	0	0	0	0	0	931	150	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3267	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3267	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	725	35	0	0	0	0	0	0	931	150	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	35	35	0
Lane Group Flow (vph)	0	749	0	0	0	0	0	0	0	430	581	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1562	
v/s Ratio Prot		c0.15										
v/s Ratio Perm										c0.27	0.18	
v/c Ratio		0.43								0.56	0.37	
Uniform Delay, d1		11.5								8.5	7.6	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.8								2.9	0.7	
Delay (s)		12.2								11.5	8.3	
Level of Service		B								B	A	
Approach Delay (s)		12.2			0.0			0.0			9.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		42.3%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	18	210	0	0	0	0	0	1108	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					4559						4460	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					4559						4460	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	18	210	0	0	0	0	0	1108	227
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	70	0
Lane Group Flow (vph)	0	0	0	0	212	0	0	0	0	0	1265	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1519						2180	
v/s Ratio Prot					c0.05						c0.28	
v/s Ratio Perm												
v/c Ratio					0.14						0.58	
Uniform Delay, d1					10.5						8.2	
Progression Factor					0.88						1.00	
Incremental Delay, d2					0.1						1.1	
Delay (s)					9.3						9.3	
Level of Service					A						A	
Approach Delay (s)		0.0			9.3			0.0			9.3	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			42.3%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	1045	342	0	0	0	0	0	0	309	913	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.86									0.91	
Frt		0.96									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5554									4520	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5554									4520	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1045	342	0	0	0	0	0	0	309	913	0
RTOR Reduction (vph)	0	49	0	0	0	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	1338	0	0	0	0	0	0	0	0	1205	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		24.0									28.0	
Effective Green, g (s)		24.0									28.0	
Actuated g/C Ratio		0.40									0.47	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		2221									2109	
v/s Ratio Prot		0.24										
v/s Ratio Perm											0.27	
v/c Ratio		0.60									0.57	
Uniform Delay, d1		14.2									11.6	
Progression Factor		0.39									1.00	
Incremental Delay, d2		1.0									1.1	
Delay (s)		6.6									12.8	
Level of Service		A									B	
Approach Delay (s)		6.6			0.0			0.0			12.8	
Approach LOS		A			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			9.5				HCM 2000 Level of Service				A	
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			56.4%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	 
Volume (veh/h)	209	0	76	5	0	1	273	679	0	0	736	290
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	209	0	76	5	0	1	273	679	0	0	736	290
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None						None					
Median storage (veh)												
Upstream signal (ft)	563											
pX, platoon unblocked												
vC, conflicting volume	1768	2106	513	1669	2251	340	1026	679				
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1768	2106	513	1669	2251	340	1026	679				
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1	4.1				
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2	2.2				
p0 queue free %	0	100	85	86	100	100	59	100				
cM capacity (veh/h)	36	30	506	37	24	656	673	909				
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	209	76	273	340	340	491	535					
Volume Left	209	0	273	0	0	0	0					
Volume Right	0	76	0	0	0	0	290					
cSH	36	506	673	1700	1700	1700	1700					
Volume to Capacity	5.78	0.15	0.41	0.20	0.20	0.29	0.31					
Queue Length 95th (ft)	Err	13	49	0	0	0	0					
Control Delay (s)	Err	13.4	14.0	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	7336.2	4.0		0.0								
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%	ICU Level of Service				H				
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #25
Oak Street / Embarcadero
Cumulative plus Residential
PM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and

Yes ☒ No ☐

580.8

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

Yes ☒ No ☐

285

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

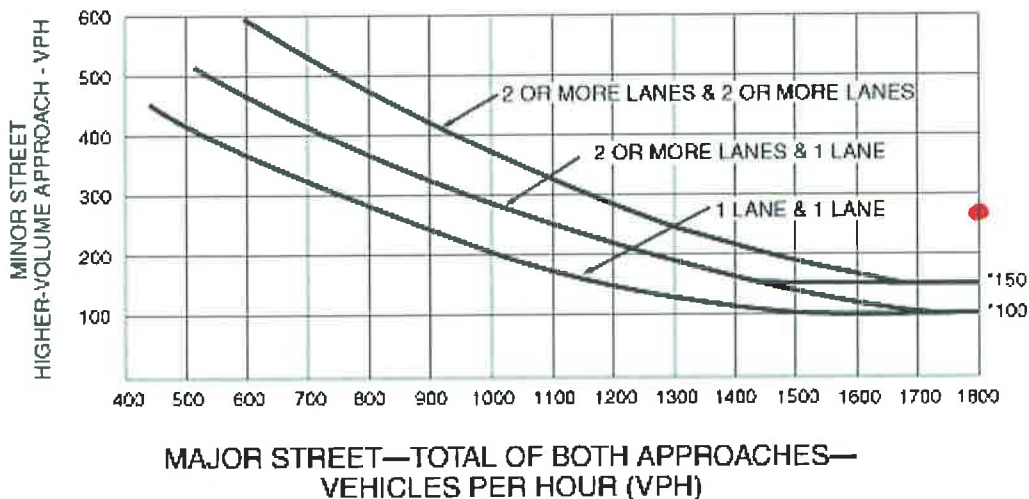
2269

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1978/285

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	141	77	136	935	986	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1718		1770	1863	1863	1583
Flt Permitted	0.97		0.15	1.00	1.00	1.00
Satd. Flow (perm)	1718		282	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	141	77	136	935	986	203
RTOR Reduction (vph)	38	0	0	0	0	68
Lane Group Flow (vph)	180	0	136	935	986	135
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	11.0		37.7	37.7	37.7	37.7
Effective Green, g (s)	11.0		37.7	37.7	37.7	37.7
Actuated g/C Ratio	0.19		0.66	0.66	0.66	0.66
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	333		187	1238	1238	1052
v/s Ratio Prot	c0.10			0.50	c0.53	
v/s Ratio Perm			0.48			0.09
v/c Ratio	0.54		0.73	0.76	0.80	0.13
Uniform Delay, d1	20.6		6.2	6.4	6.8	3.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.8		21.8	4.3	5.4	0.3
Delay (s)	22.4		28.0	10.7	12.1	3.7
Level of Service	C		C	B	B	A
Approach Delay (s)	22.4			12.9	10.7	
Approach LOS	C			B	B	
Intersection Summary						
HCM 2000 Control Delay			12.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.74			
Actuated Cycle Length (s)			56.7		Sum of lost time (s)	8.0
Intersection Capacity Utilization			81.9%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	1016	140	0	0	0	0	894	349	6	284	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.99						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4966						3390			1861	
Flt Permitted		0.99						1.00			0.69	
Satd. Flow (perm)		4966						3390			1292	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	246	1016	140	0	0	0	0	894	349	6	284	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	45	0	0	0	0
Lane Group Flow (vph)	0	1372	0	0	0	0	0	1198	0	0	290	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1130			430	
v/s Ratio Prot		c0.28						c0.35				
v/s Ratio Perm											0.22	
v/c Ratio		0.57						1.06			0.67	
Uniform Delay, d1		8.1						15.0			12.9	
Progression Factor		1.00						1.00			1.25	
Incremental Delay, d2		1.0						44.2			8.0	
Delay (s)		9.1						59.2			24.0	
Level of Service		A						E			C	
Approach Delay (s)		9.1			0.0			59.2			24.0	
Approach LOS		A			A			E			C	
Intersection Summary												
HCM 2000 Control Delay			31.8					HCM 2000 Level of Service			C	
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			45.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			70.3%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	221	85	506	163	655	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2791	1297		3154				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2791	1297		3154				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	221	85	506	163	655	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	41	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	513	217	0	818	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1364	634		1051				
v/s Ratio Prot					c0.18			c0.26				
v/s Ratio Perm						0.17						
v/c Ratio					0.38	0.34		0.78				
Uniform Delay, d1					7.2	7.1		13.5				
Progression Factor					1.00	1.00		0.90				
Incremental Delay, d2					0.8	1.5		1.9				
Delay (s)					8.0	8.5		14.0				
Level of Service					A	A		B				
Approach Delay (s)		0.0			8.2			14.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			11.1				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			55.3%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	1035	0	0	0	0	0	1049	198	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5729						4468				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5729						4468				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	1035	0	0	0	0	0	1049	198	0	0	0
RTOR Reduction (vph)	0	17	0	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	0	1179	0	0	0	0	0	1217	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2578						1787				
v/s Ratio Prot								c0.27				
v/s Ratio Perm		0.21										
v/c Ratio		0.46						0.68				
Uniform Delay, d1		11.4						14.8				
Progression Factor		0.81						1.00				
Incremental Delay, d2		0.5						2.1				
Delay (s)		9.7						17.0				
Level of Service		A						B				
Approach Delay (s)		9.7			0.0			17.0			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.4						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.56										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		74.5%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	74	879	57	56	744	623	39	19	27	750	40	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	879	57	56	744	623	39	19	27	750	40	97
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	1010	800	623	85	887							
Volume Left (vph)	74	56	0	39	750							
Volume Right (vph)	57	0	623	27	97							
Hadj (s)	0.01	0.07	-0.67	-0.06	0.14							
Departure Headway (s)	7.7	8.1	7.4	9.5	7.7							
Degree Utilization, x	2.15	1.80	1.28	0.22	1.90							
Capacity (veh/h)	477	449	496	374	476							
Control Delay (s)	544.0	389.2	162.2	15.2	430.2							
Approach Delay (s)	544.0	289.8		15.2	430.2							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			394.9									
Level of Service			F									
Intersection Capacity Utilization			162.3%		ICU Level of Service					H		
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

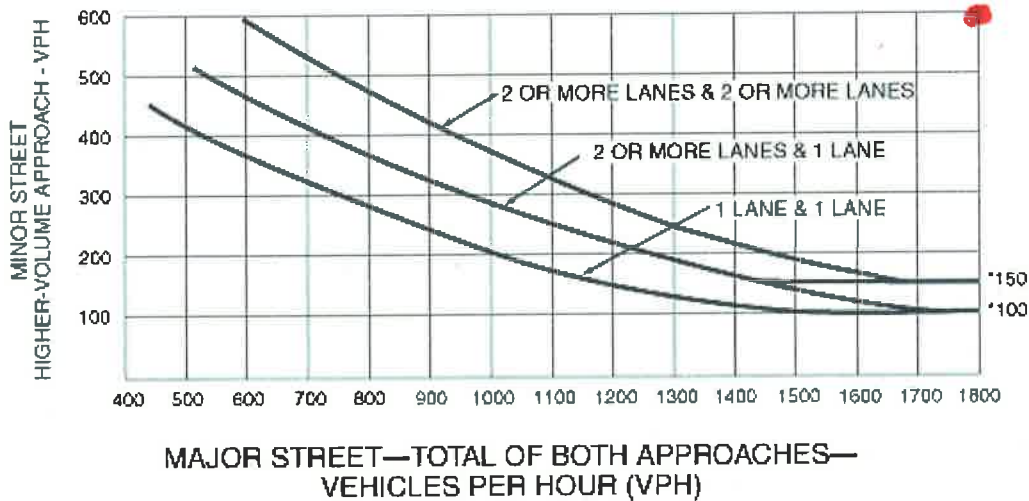
Intersection #30
5th Avenue / Embarcadero
Cumulative plus Residential
PM Peak Hour

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

2433/887

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	216	59	166	581	113	33	532	49	89	808	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	235	64	180	632	123	36	578	53	97	878	180
RTOR Reduction (vph)	0	0	48	0	15	0	0	6	0	0	0	155
Lane Group Flow (vph)	263	235	16	180	740	0	36	625	0	97	878	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Effective Green, g (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Actuated g/C Ratio	0.14	0.24	0.24	0.16	0.27		0.06	0.30		0.09	0.34	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	865	387	290	927		97	1064		167	1217	222
v/s Ratio Prot	0.08	0.07		c0.10	c0.21		0.02	0.18		c0.05	c0.25	0.02
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.27	0.04	0.62	0.80		0.37	0.59		0.58	0.72	0.11
Uniform Delay, d1	33.4	25.5	24.0	32.4	28.4		38.0	24.6		36.2	23.9	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.0	4.1	4.8		2.4	2.4		5.1	3.7	0.2
Delay (s)	34.7	25.7	24.1	36.5	33.2		40.4	26.9		41.2	27.6	31.5
Level of Service	C	C	C	D	C		D	C		D	C	C
Approach Delay (s)		29.7			33.9			27.7			29.3	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			65.6%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	321	448	315	89	240	170	87	572	39	130	1142	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Flt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	487	342	97	261	185	95	622	42	141	1241	129
RTOR Reduction (vph)	0	115	0	0	141	0	0	0	30	0	0	69
Lane Group Flow (vph)	349	714	0	97	305	0	95	622	12	141	1241	60
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Effective Green, g (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Actuated g/C Ratio	0.24	0.31		0.10	0.17		0.07	0.30	0.30	0.10	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	1028		177	559		254	1050	469	359	1158	518
v/s Ratio Prot	c0.20	c0.21		0.05	0.09		0.03	0.18		c0.04	c0.35	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.82	0.69		0.55	0.55		0.37	0.59	0.03	0.39	1.07	0.12
Uniform Delay, d1	30.4	25.8		36.4	32.3		37.4	25.5	21.2	35.5	28.6	20.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	2.1		3.4	1.1		0.9	2.5	0.1	0.7	47.9	0.5
Delay (s)	41.9	27.8		39.8	33.4		38.4	27.9	21.3	36.2	76.5	20.4
Level of Service	D	C		D	C		D	C	C	D	E	C
Approach Delay (s)		32.0			34.6			28.9			67.9	
Approach LOS		C			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			45.3				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			84.9				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			78.1%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Commercial Scenario) Conditions
AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	74	27	20	268	49	49	22	5	32	92	96
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	74	27	20	268	49	49	22	5	32	92	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	317			101			452	492	50	434	482	158
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	317			101			452	492	50	434	482	158
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			86	95	100	93	80	89
cM capacity (veh/h)	1240			1489			361	460	1007	473	467	859
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	61	64	154	183	76	32	61	127				
Volume Left	24	0	20	0	49	32	0	0				
Volume Right	0	27	0	49	5	0	0	96				
cSH	1240	1700	1489	1700	404	473	467	714				
Volume to Capacity	0.02	0.04	0.01	0.11	0.19	0.07	0.13	0.18				
Queue Length 95th (ft)	1	0	1	0	17	5	11	16				
Control Delay (s)	3.2	0.0	1.1	0.0	16.0	13.2	13.9	11.1				
Lane LOS	A		A		C	B	B	B				
Approach Delay (s)	1.6		0.5		16.0	12.2						
Approach LOS					C	B						
Intersection Summary												
Average Delay			5.6									
Intersection Capacity Utilization			36.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	213	17	0	0	0	0	86	22	63	231	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5026						3431		1770	5085	
Flt Permitted		1.00						1.00		0.68	1.00	
Satd. Flow (perm)		5026						3431		1274	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	213	17	0	0	0	0	86	22	63	231	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	227	0	0	0	0	0	92	0	63	231	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		45.5						19.5		19.5	19.5	
Effective Green, g (s)		45.5						19.5		19.5	19.5	
Actuated g/C Ratio		0.61						0.26		0.26	0.26	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3049						892		331	1322	
v/s Ratio Prot								0.03			0.05	
v/s Ratio Perm		0.05								c0.05		
v/c Ratio		0.07						0.10		0.19	0.17	
Uniform Delay, d1		6.1						21.1		21.6	21.5	
Progression Factor		1.00						1.24		0.63	0.65	
Incremental Delay, d2		0.0						0.2		1.3	0.3	
Delay (s)		6.1						26.3		14.8	14.2	
Level of Service		A						C		B	B	
Approach Delay (s)		6.1			0.0			26.3			14.3	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay		13.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.11										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		29.8%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					 			 				 
Volume (vph)	0	0	0	99	259	248	11	26	78	0	0	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3491	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.63	1.00			1.00
Satd. Flow (perm)					3491	1583		1180	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	99	259	248	11	26	78	0	0	188
RTOR Reduction (vph)	0	0	0	0	0	200	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	358	48	0	37	78	0	0	188
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					14.5	14.5		51.5	51.5			51.5
Effective Green, g (s)					14.5	14.5		51.5	51.5			51.5
Actuated g/C Ratio					0.19	0.19		0.69	0.69			0.69
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					674	306		810	1279			2430
v/s Ratio Prot									0.04			c0.05
v/s Ratio Perm					0.10	0.03		0.03				
v/c Ratio					0.53	0.16		0.05	0.06			0.08
Uniform Delay, d1					27.2	25.2		3.8	3.8			3.9
Progression Factor					0.85	0.58		0.57	0.57			0.82
Incremental Delay, d2					0.8	0.2		0.1	0.1			0.1
Delay (s)					23.9	14.9		2.3	2.3			3.2
Level of Service					C	B		A	A			A
Approach Delay (s)		0.0			20.2				2.3			3.2
Approach LOS		A			C				A			A
Intersection Summary												
HCM 2000 Control Delay			13.7		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			75.0	Sum of lost time (s)				9.0				
Intersection Capacity Utilization			29.8%	ICU Level of Service				A				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	62
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	62
RTOR Reduction (vph)	19
Lane Group Flow (vph)	43
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	51.5
Effective Green, g (s)	51.5
Actuated g/C Ratio	0.69
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1086
v/s Ratio Prot	
v/s Ratio Perm	0.03
v/c Ratio	0.04
Uniform Delay, d1	3.8
Progression Factor	0.81
Incremental Delay, d2	0.1
Delay (s)	3.1
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	339	44	55	749	46	158	172	16	50	102	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.98		1.00	0.99		1.00	0.99		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	4998		1770	5041		1770	1839		1770	3539	1583
Satd. Flow (perm)	451	4998		962	5041		1281	1839		1191	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	53	339	44	55	749	46	158	172	16	50	102	94
RTOR Reduction (vph)	0	30	0	0	13	0	0	3	0	0	0	37
Lane Group Flow (vph)	53	353	0	55	782	0	158	185	0	50	102	57
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	19.8	19.8		19.8	19.8		45.7	45.7		45.7	45.7	45.7
Effective Green, g (s)	19.8	19.8		19.8	19.8		45.7	45.7		45.7	45.7	45.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.61	0.61		0.61	0.61	0.61
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	119	1319		253	1330		780	1120		725	2156	964
v/s Ratio Prot		0.07			c0.16			0.10			0.03	
v/s Ratio Perm	0.12			0.06			c0.12			0.04		0.04
v/c Ratio	0.45	0.27		0.22	0.59		0.20	0.17		0.07	0.05	0.06
Uniform Delay, d1	23.0	21.9		21.6	24.0		6.5	6.4		6.0	5.9	5.9
Progression Factor	1.00	1.00		1.00	1.00		0.71	0.69		1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1		0.4	0.7		0.6	0.3		0.2	0.0	0.1
Delay (s)	25.7	22.0		22.0	24.7		5.2	4.7		6.2	5.9	6.1
Level of Service	C	C		C	C		A	A		A	A	A
Approach Delay (s)		22.4			24.5			4.9			6.0	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		18.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.32										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)			9.5				
Intersection Capacity Utilization		48.0%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	159	883	477	31	92	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	0.99		0.94	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5427	4535		2959	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5427	4535		2959	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	159	883	477	31	92	69
RTOR Reduction (vph)	75	34	6	0	0	0
Lane Group Flow (vph)	68	865	502	0	161	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	55.0	55.0	24.0		21.0	
Effective Green, g (s)	55.0	55.0	24.0		21.0	
Actuated g/C Ratio	0.48	0.48	0.21		0.18	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	616	2595	946		540	
v/s Ratio Prot	0.05	c0.16	c0.11		c0.05	
v/s Ratio Perm						
v/c Ratio	0.11	0.33	0.53		0.30	
Uniform Delay, d1	16.5	18.6	40.5		40.6	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.4	0.3	2.1		0.3	
Delay (s)	16.9	19.0	42.6		40.9	
Level of Service	B	B	D		D	
Approach Delay (s)		18.7	42.6		40.9	
Approach LOS		B	D		D	
Intersection Summary						
HCM 2000 Control Delay			27.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.37			
Actuated Cycle Length (s)			115.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			68.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑	↑	↑↑↑				
Volume (vph)	0	0	0	0	239	289	43	565	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.95	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2895	1297	1290	5430				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2895	1297	1290	5430				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	239	289	43	565	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	52	62	25	9	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	311	103	14	560	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					64.0	64.0	41.5	41.5				
Effective Green, g (s)					64.0	64.0	41.5	41.5				
Actuated g/C Ratio					0.56	0.56	0.36	0.36				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1611	721	465	1959				
v/s Ratio Prot					c0.11							
v/s Ratio Perm						0.08	0.01	0.10				
v/c Ratio					0.19	0.14	0.03	0.29				
Uniform Delay, d1					12.7	12.3	23.7	26.2				
Progression Factor					1.00	1.00	1.95	1.18				
Incremental Delay, d2					0.3	0.4	0.1	0.3				
Delay (s)					12.9	12.7	46.3	31.3				
Level of Service					B	B	D	C				
Approach Delay (s)		0.0			12.9			32.3			0.0	
Approach LOS		A			B			C			A	
Intersection Summary												
HCM 2000 Control Delay			23.2									
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			115.0									
Intersection Capacity Utilization			46.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

																			
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Sign Control		Stop			Stop			Stop			Stop								
Volume (vph)	7	94	79	8	109	101	10	39	0	335	180	66							
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
Hourly flow rate (vph)	7	94	79	8	109	101	10	39	0	335	180	66							
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2														
Volume Total (vph)	180	218	49	425	156														
Volume Left (vph)	7	8	10	335	0														
Volume Right (vph)	79	101	0	0	66														
Hadj (s)	-0.22	-0.24	0.07	0.43	-0.26														
Departure Headway (s)	5.7	5.6	6.2	6.2	5.5														
Degree Utilization, x	0.29	0.34	0.08	0.73	0.24														
Capacity (veh/h)	583	595	510	571	640														
Control Delay (s)	11.0	11.5	9.7	22.7	9.0														
Approach Delay (s)	11.0	11.5	9.7	19.0															
Approach LOS	B	B	A	C															
Intersection Summary																			
Delay			15.6																
Level of Service			C																
Intersection Capacity Utilization			47.1%	ICU Level of Service		A													
Analysis Period (min)			15																

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	2	2	7	22	26	16	378	33	103	463	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	2	2	7	22	26	16	378	33	103	463	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	0.97	0.97	0.97	0.97	0.97		0.97					
vC, conflicting volume	951	1136	256	867	1144	206	511			411		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	896	1086	182	810	1094	206	444			411		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	100	97	88	97	99			91		
cM capacity (veh/h)	186	188	808	241	186	801	1083			1144		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	10	55	205	222	334	280						
Volume Left	6	7	16	0	103	0						
Volume Right	2	26	0	33	0	48						
cSH	220	306	1083	1700	1144	1700						
Volume to Capacity	0.05	0.18	0.01	0.13	0.09	0.16						
Queue Length 95th (ft)	4	16	1	0	7	0						
Control Delay (s)	22.1	19.3	0.8	0.0	3.2	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	22.1	19.3	0.4		1.8							
Approach LOS	C	C										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			42.6%		ICU Level of Service		A					
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	38	21	5	54	49	42	359	30	102	427	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.95			0.94			0.99			0.96	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1763			1745			3485			3386	
Flt Permitted	0.75	1.00			0.99			0.85			0.82	
Satd. Flow (perm)	1391	1763			1736			2980			2782	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	38	21	5	54	49	42	359	30	102	427	168
RTOR Reduction (vph)	0	12	0	0	28	0	0	7	0	0	40	0
Lane Group Flow (vph)	34	47	0	0	80	0	0	424	0	0	657	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	593	752			740			1350			1261	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.02				c0.05			0.14			c0.24	
v/c Ratio	0.06	0.06			0.11			0.31			0.52	
Uniform Delay, d1	12.6	12.7			12.9			13.1			14.7	
Progression Factor	1.00	1.00			1.00			1.00			1.09	
Incremental Delay, d2	0.2	0.2			0.3			0.6			1.5	
Delay (s)	12.8	12.8			13.2			13.7			17.5	
Level of Service	B	B			B			B			B	
Approach Delay (s)		12.8			13.2			13.7			17.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			15.6									
HCM 2000 Volume to Capacity ratio			0.32									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			53.3%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	931	179	99	0	0	0	0	318	537	548	415	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1610	3272	1583					3539	1583	3433	1863	
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1610	3272	1583					3539	1583	3433	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	931	179	99	0	0	0	0	318	537	548	415	0
RTOR Reduction (vph)	0	0	70	0	0	0	0	0	177	0	0	0
Lane Group Flow (vph)	465	645	29	0	0	0	0	318	360	548	415	0
Turn Type	Split	NA	Prot					NA	Prot	Prot	NA	
Protected Phases	4	4	4					2	2	1	6	
Permitted Phases												
Actuated Green, G (s)	21.6	21.6	21.6					23.5	23.5	16.4	43.4	
Effective Green, g (s)	21.6	21.6	21.6					23.5	23.5	16.4	43.4	
Actuated g/C Ratio	0.29	0.29	0.29					0.31	0.31	0.22	0.58	
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	463	942	455					1108	496	750	1078	
v/s Ratio Prot	c0.29	0.20	0.02					0.09	c0.23	c0.16	0.22	
v/s Ratio Perm												
v/c Ratio	1.00	0.96dl	0.06					0.29	0.73	0.73	0.38	
Uniform Delay, d1	26.7	23.7	19.4					19.4	22.9	27.2	8.6	
Progression Factor	0.99	0.99	0.99					0.85	0.67	0.81	0.46	
Incremental Delay, d2	42.9	2.1	0.1					0.6	8.9	3.5	0.2	
Delay (s)	69.3	25.4	19.2					17.1	24.3	25.5	4.2	
Level of Service	E	C	B					B	C	C	A	
Approach Delay (s)		41.8			0.0			21.7			16.3	
Approach LOS		D			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			28.0		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				13.5			
Intersection Capacity Utilization			110.9%		ICU Level of Service				H			
Analysis Period (min)			15									
dl Defacto Left Lane. Recode with 1 though lane as a left lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↡	↡	↰	↡			↡	↰
Volume (vph)	0	0	0	359	160	533	67	473	0	0	384	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4503	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4503	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	359	160	533	67	473	0	0	384	46
RTOR Reduction (vph)	0	0	0	0	0	221	0	0	0	0	18	0
Lane Group Flow (vph)	0	0	0	359	160	312	67	473	0	0	412	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				27.0	27.0	27.0	15.2	40.0			20.8	
Effective Green, g (s)				27.0	27.0	27.0	15.2	40.0			20.8	
Actuated g/C Ratio				0.36	0.36	0.36	0.20	0.53			0.28	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				573	1146	513	322	1698			1248	
v/s Ratio Prot				c0.23	0.05	0.22	0.04	c0.15			c0.09	
v/s Ratio Perm												
v/c Ratio				0.63	0.14	0.61	0.21	0.28			0.33	
Uniform Delay, d1				19.8	16.2	19.7	24.9	9.6			21.6	
Progression Factor				1.00	1.00	1.00	1.87	2.41			1.00	
Incremental Delay, d2				2.1	0.1	2.0	0.2	0.3			0.7	
Delay (s)				22.0	16.2	21.7	46.9	23.4			22.3	
Level of Service				C	B	C	D	C			C	
Approach Delay (s)		0.0			21.0			26.3			22.3	
Approach LOS		A			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			22.7									
HCM 2000 Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			110.9%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	632	133	0	0	0	0	418	80	105	552	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		4550	1425					3109		1593	3185	
Flt Permitted		0.99	1.00					1.00		0.42	1.00	
Satd. Flow (perm)		4550	1425					3109		704	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	84	632	133	0	0	0	0	418	80	105	552	0
RTOR Reduction (vph)	0	0	82	0	0	0	0	26	0	0	0	0
Lane Group Flow (vph)	0	716	51	0	0	0	0	472	0	105	552	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		23.0	23.0					21.0		29.0	29.0	
Effective Green, g (s)		23.0	23.0					21.0		29.0	29.0	
Actuated g/C Ratio		0.38	0.38					0.35		0.48	0.48	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		1744	546					1088		399	1539	
v/s Ratio Prot		c0.16						c0.15		0.02	c0.17	
v/s Ratio Perm			0.04							0.11		
v/c Ratio		0.41	0.09					0.43		0.26	0.36	
Uniform Delay, d1		13.5	11.8					14.9		10.9	9.7	
Progression Factor		1.00	1.00					1.00		0.30	0.30	
Incremental Delay, d2		0.2	0.1					1.3		0.3	0.6	
Delay (s)		13.7	11.9					16.2		3.6	3.5	
Level of Service		B	B					B		A	A	
Approach Delay (s)		13.4			0.0			16.2			3.5	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.9					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)		12.0		
Intersection Capacity Utilization			54.1%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	153	500	106	95	372	0	0	486	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.99	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3087		1593	3185			4522	
Flt Permitted					0.99		0.42	1.00			1.00	
Satd. Flow (perm)					3087		712	3185			4522	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	153	500	106	95	372	0	0	486	42
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	17	0
Lane Group Flow (vph)	0	0	0	0	737	0	95	372	0	0	511	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1337		367	1380			1356	
v/s Ratio Prot					c0.24		0.02	c0.12			c0.11	
v/s Ratio Perm							0.09					
v/c Ratio					0.55		0.26	0.27			0.38	
Uniform Delay, d1					12.7		11.7	10.9			16.6	
Progression Factor					1.00		0.58	0.52			1.89	
Incremental Delay, d2					1.6		1.6	0.4			0.7	
Delay (s)					14.3		8.4	6.1			32.0	
Level of Service					B		A	A			C	
Approach Delay (s)		0.0			14.3			6.6			32.0	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			17.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			54.1%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	278	87	1	327	111	0	365	26	0	650	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.96			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3071			3064			3154			3124	
Flt Permitted		0.95			0.95			1.00			1.00	
Satd. Flow (perm)		2924			2924			3154			3124	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	278	87	1	327	111	0	365	26	0	650	95
RTOR Reduction (vph)	0	49	0	0	55	0	0	9	0	0	19	0
Lane Group Flow (vph)	0	319	0	0	384	0	0	382	0	0	726	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.5			21.5			27.5			27.5	
Effective Green, g (s)		21.5			21.5			27.5			27.5	
Actuated g/C Ratio		0.36			0.36			0.46			0.46	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1047			1047			1445			1431	
v/s Ratio Prot								0.12			c0.23	
v/s Ratio Perm		0.11			c0.13							
v/c Ratio		0.30			0.37			0.26			0.51	
Uniform Delay, d1		13.9			14.2			10.0			11.5	
Progression Factor		1.00			1.00			0.39			1.00	
Incremental Delay, d2		0.8			1.0			0.4			1.3	
Delay (s)		14.6			15.2			4.4			12.8	
Level of Service		B			B			A			B	
Approach Delay (s)		14.6			15.2			4.4			12.8	
Approach LOS		B			B			A			B	
Intersection Summary												
HCM 2000 Control Delay		12.0			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		60.0			Sum of lost time (s)			11.0				
Intersection Capacity Utilization		47.3%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	26	15	5	21	0	0	0	0	14	19	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	26	15	5	21	0	0	0	0	14	19	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	21			41			86	64	34	64	72	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			41			86	64	34	64	72	21
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	98	98	99
cM capacity (veh/h)	1595			1568			872	824	1040	927	816	1056
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	41	26	24	22								
Volume Left	0	5	14	0								
Volume Right	15	0	0	12								
cSH	1700	1568	879	935								
Volume to Capacity	0.02	0.00	0.03	0.02								
Queue Length 95th (ft)	0	0	2	2								
Control Delay (s)	0.0	1.4	9.2	8.9								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	1.4	9.1									
Approach LOS			A									
Intersection Summary												
Average Delay			4.0									
Intersection Capacity Utilization			15.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	27	13	20	30	0	0	0	0	7	3	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	27	13	20	30	0	0	0	0	7	3	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	30			40			107	104	34	104	110	30
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	30			40			107	104	34	104	110	30
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	100	100
cM capacity (veh/h)	1583			1570			859	777	1040	868	770	1044
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	40	50	8	4								
Volume Left	0	20	7	0								
Volume Right	13	0	0	2								
cSH	1700	1570	849	906								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	0	1	1	0								
Control Delay (s)	0.0	3.0	9.3	9.0								
Lane LOS		A	A	A								
Approach Delay (s)	0.0	3.0	9.2									
Approach LOS			A									
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			19.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	64	184	157	52	77	101
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	64	184	157	52	77	101
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		268	128	312	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		268	128	312	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	96		71	93	87	91
cM capacity (veh/h)	1623		542	732	579	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	64	184	209	77	101	
Volume Left	64	0	157	0	0	
Volume Right	0	184	0	0	101	
cSH	1623	1700	579	579	1085	
Volume to Capacity	0.04	0.11	0.36	0.13	0.09	
Queue Length 95th (ft)	3	0	41	11	8	
Control Delay (s)	7.3	0.0	14.7	12.2	8.7	
Lane LOS	A		B	B	A	
Approach Delay (s)	1.9		14.7	10.2		
Approach LOS			B	B		
Intersection Summary						
Average Delay	8.4					
Intersection Capacity Utilization	28.3%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑	↑↑			
Volume (vph)	165	691	0	0	0	0	0	616	1386	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4533						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4533						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	165	691	0	0	0	0	0	616	1386	0	0	0
RTOR Reduction (vph)	0	67	0	0	0	0	0	0	131	0	0	0
Lane Group Flow (vph)	0	789	0	0	0	0	0	616	1255	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		27.0						23.0	29.0			
Effective Green, g (s)		27.0						23.0	29.0			
Actuated g/C Ratio		0.45						0.38	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2039						1754	1212			
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.17							c0.50			
v/c Ratio		0.39						0.35	1.04			
Uniform Delay, d1		11.0						13.2	15.5			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		0.6						0.6	35.4			
Delay (s)		11.5						13.7	50.9			
Level of Service		B						B	D			
Approach Delay (s)		11.5			0.0			39.5			0.0	
Approach LOS		B			A			D			A	
Intersection Summary												
HCM 2000 Control Delay		31.1						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.78										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		100.4%						ICU Level of Service	G			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	311	438	514	0	0	0	0	236	41	66	99	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Flt		0.94						0.98		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4717						1826		1770	1863	
Flt Permitted		0.99						1.00		0.53	1.00	
Satd. Flow (perm)		4717						1826		994	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	311	438	514	0	0	0	0	236	41	66	99	0
RTOR Reduction (vph)	0	166	0	0	0	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	1097	0	0	0	0	0	269	0	66	99	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2169						718		390	732	
v/s Ratio Prot								c0.15			0.05	
v/s Ratio Perm		0.23								0.07		
v/c Ratio		0.51						0.37		0.17	0.14	
Uniform Delay, d1		14.3						16.2		14.8	14.6	
Progression Factor		1.00						1.00		0.67	0.69	
Incremental Delay, d2		0.8						1.5		0.9	0.4	
Delay (s)		15.1						17.7		10.9	10.4	
Level of Service		B						B		B	B	
Approach Delay (s)		15.1			0.0			17.7			10.6	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.1						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.44										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		79.3%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	2	311	56	298	281	0	0	206	1408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.63	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1054	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	2	311	56	298	281	0	0	206	1408
RTOR Reduction (vph)	0	0	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	2	311	15	298	281	0	0	206	1408
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	625	994			994	1425
v/s Ratio Prot				0.00	0.19			0.17			0.12	
v/s Ratio Perm						0.01	0.28					c0.99
v/c Ratio				0.00	0.71	0.04	0.48	0.28			0.21	0.99
Uniform Delay, d1				20.6	25.2	20.7	8.6	7.5			7.1	0.0
Progression Factor				1.00	1.00	1.00	1.23	1.21			1.00	1.00
Incremental Delay, d2				0.0	9.7	0.2	2.4	0.6			0.5	21.2
Delay (s)				20.6	34.9	20.9	13.0	9.7			7.5	21.2
Level of Service				C	C	C	B	A			A	C
Approach Delay (s)		0.0			32.7			11.4			19.4	
Approach LOS		A			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			19.5									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			1.16									
Actuated Cycle Length (s)			75.0									Sum of lost time (s) 11.0
Intersection Capacity Utilization			79.3%									ICU Level of Service D
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	529	1338	0	0	0	0	354	90	28	356	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					4.0			4.0	
Lane Util. Factor		0.86	0.86					1.00			1.00	
Frt		0.92	0.85					0.97			1.00	
Flt Protected		1.00	1.00					1.00			1.00	
Satd. Flow (prot)		3968	1226					1631			1670	
Flt Permitted		1.00	1.00					1.00			0.96	
Satd. Flow (perm)		3968	1226					1631			1605	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	38	529	1338	0	0	0	0	354	90	28	356	0
RTOR Reduction (vph)	0	316	0	0	0	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	920	669	0	0	0	0	429	0	0	384	0
Turn Type	Split	NA	Free					NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases			Free							6		
Actuated Green, G (s)		19.0	60.0					32.0			32.0	
Effective Green, g (s)		19.0	60.0					32.0			32.0	
Actuated g/C Ratio		0.32	1.00					0.53			0.53	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		1256	1226					869			856	
v/s Ratio Prot		c0.23						0.26				
v/s Ratio Perm			c0.55								0.24	
v/c Ratio		0.90dr	0.55					0.49			0.45	
Uniform Delay, d1		18.2	0.0					8.9			8.6	
Progression Factor		1.00	1.00					1.00			1.00	
Incremental Delay, d2		3.8	1.7					2.0			1.7	
Delay (s)		22.0	1.7					10.9			10.3	
Level of Service		C	A					B			B	
Approach Delay (s)		14.9			0.0			10.9			10.3	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			13.6					HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			60.0					Sum of lost time (s)			9.0	
Intersection Capacity Utilization			77.3%					ICU Level of Service			D	
Analysis Period (min)			15									
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↱	↱↑	
Volume (vph)	0	547	22	0	0	0	0	0	0	589	149	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.97	
Satd. Flow (prot)		5056								1610	3281	
Flt Permitted		1.00								0.95	0.97	
Satd. Flow (perm)		5056								1610	3281	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	547	22	0	0	0	0	0	0	589	149	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	71	71	0
Lane Group Flow (vph)	0	560	0	0	0	0	0	0	0	223	373	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1758								770	1569	
v/s Ratio Prot		c0.11										
v/s Ratio Perm										c0.14	0.11	
v/c Ratio		0.32								0.29	0.24	
Uniform Delay, d1		11.0								7.3	7.1	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.5								0.9	0.4	
Delay (s)		11.5								8.2	7.4	
Level of Service		B								A	A	
Approach Delay (s)		11.5			0.0			0.0			7.7	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.4				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.30									
Actuated Cycle Length (s)			46.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			33.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	34	180	0	0	0	0	0	753	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.96	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					4541						4409	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					4541						4409	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	34	180	0	0	0	0	0	753	244
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	125	0
Lane Group Flow (vph)	0	0	0	0	191	0	0	0	0	0	872	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1513						2155	
v/s Ratio Prot					c0.04						c0.20	
v/s Ratio Perm												
v/c Ratio					0.13						0.40	
Uniform Delay, d1					10.4						7.3	
Progression Factor					0.99						1.00	
Incremental Delay, d2					0.1						0.6	
Delay (s)					10.4						7.9	
Level of Service					B						A	
Approach Delay (s)		0.0			10.4			0.0			7.9	
Approach LOS		A			B			A			A	
Intersection Summary												
HCM 2000 Control Delay			8.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.29									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			33.5%		ICU Level of Service					A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	435	254	0	0	0	0	0	0	142	722	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.94										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5448										4539	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5448										4539	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	435	254	0	0	0	0	0	0	142	722	0	
RTOR Reduction (vph)	0	94	0	0	0	0	0	0	0	0	49	0	
Lane Group Flow (vph)	0	595	0	0	0	0	0	0	0	0	815	0	
Turn Type		NA								Perm	NA		
Protected Phases		4								6			
Permitted Phases										6			
Actuated Green, G (s)		23.0								29.0			
Effective Green, g (s)		23.0								29.0			
Actuated g/C Ratio		0.38								0.48			
Clearance Time (s)		4.0								4.0			
Vehicle Extension (s)		3.0								3.0			
Lane Grp Cap (vph)		2088								2193			
v/s Ratio Prot		c0.11											
v/s Ratio Perm										0.18			
v/c Ratio		0.28								0.37			
Uniform Delay, d1		12.8								9.8			
Progression Factor		0.52								1.00			
Incremental Delay, d2		0.2								0.5			
Delay (s)		6.9								10.2			
Level of Service		A								B			
Approach Delay (s)		6.9				0.0		0.0		10.2			
Approach LOS		A				A		A		B			
Intersection Summary													
HCM 2000 Control Delay		8.8			HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio		0.33											
Actuated Cycle Length (s)		60.0			Sum of lost time (s)				8.0				
Intersection Capacity Utilization		40.4%			ICU Level of Service				A				
Analysis Period (min)		15											
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	139	0	75	2	0	0	396	579	0	0	325	201	
Sign Control	Stop		Stop		Stop		Free		Free		Free		
Grade	0%		0%		0%		0%		0%		0%		
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly flow rate (vph)	139	0	75	2	0	0	396	579	0	0	325	201	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None						None						
Median storage (veh)													
Upstream signal (ft)												563	
pX, platoon unblocked													
vC, conflicting volume	1507	1796	263	1608	1897	290	526						579
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	1507	1796	263	1608	1897	290	526						579
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1						4.1
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2						2.2
p0 queue free %	0	100	90	95	100	100	62						100
cM capacity (veh/h)	58	49	735	44	42	707	1037						991
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2						
Volume Total	139	75	396	290	290	217	309						
Volume Left	139	0	396	0	0	0	0						
Volume Right	0	75	0	0	0	0	201						
cSH	58	735	1037	1700	1700	1700	1700						
Volume to Capacity	2.38	0.10	0.38	0.17	0.17	0.13	0.18						
Queue Length 95th (ft)	346	8	45	0	0	0	0						
Control Delay (s)	778.4	10.4	10.6	0.0	0.0	0.0	0.0						
Lane LOS	F	B	B										
Approach Delay (s)	509.2	4.3				0.0							
Approach LOS	F												
Intersection Summary													
Average Delay			Err										
Intersection Capacity Utilization			Err%		ICU Level of Service				H				
Analysis Period (min)			15										

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #25
Oak Street / Embarcadero
Cumulative plus Commercial
AM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

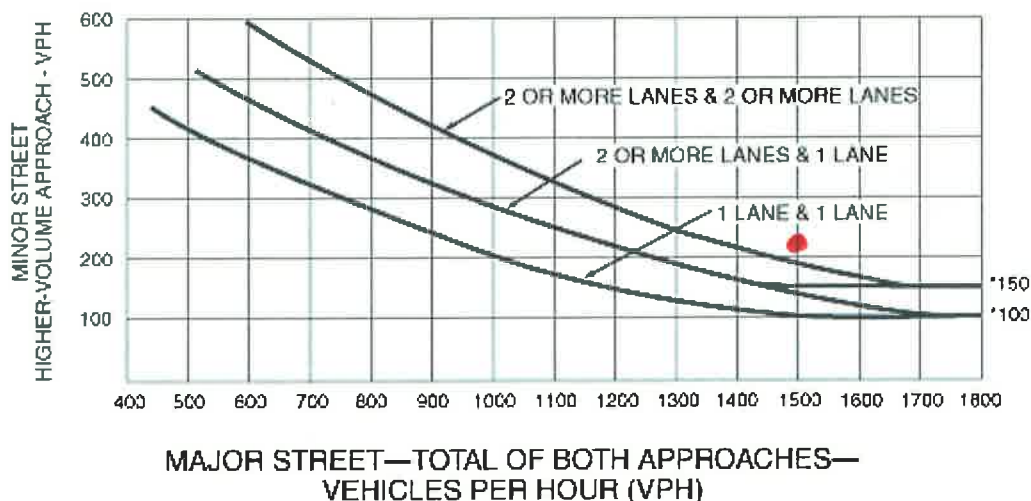
1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
 Yes ☒ No ☐ 30.3
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
 Yes ☒ No ☐ 214
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.
 Yes ☒ No ☐ 1717

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	63	94	153	762	596	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1679		1770	1863	1863	1583
Flt Permitted	0.98		0.40	1.00	1.00	1.00
Satd. Flow (perm)	1679		751	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	94	153	762	596	106
RTOR Reduction (vph)	82	0	0	0	0	28
Lane Group Flow (vph)	75	0	153	762	596	78
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	6.8		40.3	40.3	40.3	40.3
Effective Green, g (s)	6.8		40.3	40.3	40.3	40.3
Actuated g/C Ratio	0.12		0.73	0.73	0.73	0.73
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	207		549	1362	1362	1157
v/s Ratio Prot	c0.04			c0.41	0.32	
v/s Ratio Perm			0.20			0.05
v/c Ratio	0.36		0.28	0.56	0.44	0.07
Uniform Delay, d1	22.2		2.5	3.4	2.9	2.1
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1		1.3	1.7	1.0	0.1
Delay (s)	23.2		3.8	5.0	3.9	2.2
Level of Service	C		A	A	A	A
Approach Delay (s)	23.2			4.8	3.7	
Approach LOS	C			A	A	
Intersection Summary						
HCM 2000 Control Delay			6.0	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.53			
Actuated Cycle Length (s)			55.1	Sum of lost time (s)		8.0
Intersection Capacity Utilization			59.1%	ICU Level of Service		B
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	682	155	0	0	0	0	608	233	3	259	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.98						0.96			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4919						3392			1862	
Flt Permitted		0.99						1.00			0.99	
Satd. Flow (perm)		4919						3392			1845	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	269	682	155	0	0	0	0	608	233	3	259	0
RTOR Reduction (vph)	0	50	0	0	0	0	0	89	0	0	0	0
Lane Group Flow (vph)	0	1056	0	0	0	0	0	752	0	0	262	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2404						1130			615	
v/s Ratio Prot		c0.21						c0.22				
v/s Ratio Perm											0.14	
v/c Ratio		0.44						0.67			0.43	
Uniform Delay, d1		7.5						12.9			11.7	
Progression Factor		1.00						1.00			1.19	
Incremental Delay, d2		0.6						3.1			2.1	
Delay (s)		8.1						16.0			16.0	
Level of Service		A						B			B	
Approach Delay (s)		8.1			0.0			16.0			16.0	
Approach LOS		A			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		12.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.53										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		53.0%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	179	61	527	150	482	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.92	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2762	1297		3148				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2762	1297		3148				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	179	61	527	150	482	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	83	83	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	421	180	0	632	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1350	634		1049				
v/s Ratio Prot					c0.15			c0.20				
v/s Ratio Perm						0.14						
v/c Ratio					0.31	0.28		0.60				
Uniform Delay, d1					6.9	6.8		12.5				
Progression Factor					1.00	1.00		0.79				
Incremental Delay, d2					0.6	1.1		2.0				
Delay (s)					7.5	7.9		11.9				
Level of Service					A	A		B				
Approach Delay (s)		0.0			7.7			11.9			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			9.6				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.43									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			50.5%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	416	0	0	0	0	0	941	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5708						4515				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5708						4515				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	416	0	0	0	0	0	941	93	0	0	0
RTOR Reduction (vph)	0	25	0	0	0	0	0	20	0	0	0	0
Lane Group Flow (vph)	0	499	0	0	0	0	0	1014	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		27.0						24.0				
Effective Green, g (s)		27.0						24.0				
Actuated g/C Ratio		0.45						0.40				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2568						1806				
v/s Ratio Prot								c0.22				
v/s Ratio Perm		0.09										
v/c Ratio		0.19						0.56				
Uniform Delay, d1		9.9						13.9				
Progression Factor		1.25						1.00				
Incremental Delay, d2		0.2						1.3				
Delay (s)		12.6						15.2				
Level of Service		B						B				
Approach Delay (s)		12.6			0.0			15.2			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		14.3						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		69.6%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	70	426	19	20	664	436	75	45	56	390	16	137
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	70	426	19	20	664	436	75	45	56	390	16	137
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	515	684	436	176	543							
Volume Left (vph)	70	20	0	75	390							
Volume Right (vph)	19	0	436	56	137							
Hadj (s)	0.04	0.05	-0.67	-0.07	0.03							
Departure Headway (s)	8.3	8.6	7.9	9.5	8.2							
Degree Utilization, x	1.19	1.63	0.95	0.46	1.23							
Capacity (veh/h)	439	423	452	367	436							
Control Delay (s)	131.9	315.9	58.6	20.3	149.4							
Approach Delay (s)	131.9	215.7		20.3	149.4							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			167.5									
Level of Service			F									
Intersection Capacity Utilization			111.0%		ICU Level of Service				H			
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

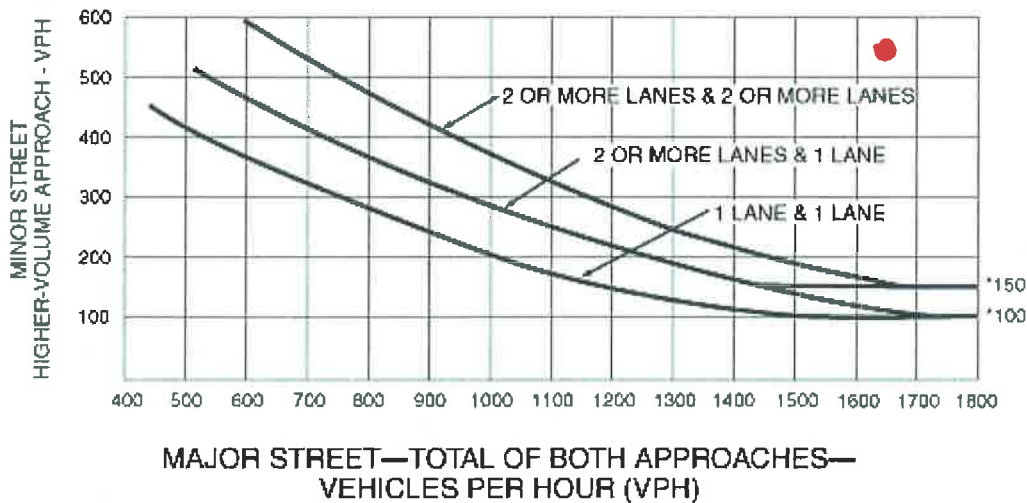
Intersection #30
5th Avenue / Embarcadero
Cumulative plus Commercial
AM Peak Hour

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	269	193	68	38	334	106	77	866	37	58	627	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3411		1770	3518		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3411		1770	3518		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	292	210	74	41	363	115	84	941	40	63	682	374
RTOR Reduction (vph)	0	0	50	0	31	0	0	3	0	0	0	315
Lane Group Flow (vph)	292	210	24	41	447	0	84	978	0	63	682	59
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Effective Green, g (s)	12.3	25.6	25.6	4.6	17.9		7.3	25.4		6.8	24.9	12.3
Actuated g/C Ratio	0.16	0.33	0.33	0.06	0.23		0.09	0.32		0.09	0.32	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	538	1155	516	103	778		164	1139		153	1123	248
v/s Ratio Prot	c0.09	0.06		0.02	c0.13		c0.05	c0.28		0.04	0.19	0.04
v/s Ratio Perm			0.02									
v/c Ratio	0.54	0.18	0.05	0.40	0.57		0.51	0.86		0.41	0.61	0.24
Uniform Delay, d1	30.5	18.9	18.1	35.6	26.9		33.9	24.8		33.9	22.6	28.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1	0.0	2.5	1.0		2.7	8.5		1.8	2.4	0.5
Delay (s)	31.6	19.0	18.1	38.1	27.9		36.5	33.3		35.7	25.1	29.4
Level of Service	C	B	B	D	C		D	C		D	C	C
Approach Delay (s)		25.3			28.7			33.6			27.1	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			29.1			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			78.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			62.1%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	152	283	124	65	338	162	119	906	47	125	510	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Flt Protected	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Satd. Flow (perm)	1770	3377		1770	3367		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	308	135	71	367	176	129	985	51	136	554	62
RTOR Reduction (vph)	0	46	0	0	59	0	0	0	35	0	0	43
Lane Group Flow (vph)	165	397	0	71	484	0	129	985	16	136	554	19
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Effective Green, g (s)	12.9	23.6		7.3	18.0		8.5	24.4	24.4	8.7	24.6	24.6
Actuated g/C Ratio	0.16	0.30		0.09	0.22		0.11	0.30	0.30	0.11	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	996		161	757		364	1079	482	373	1088	486
v/s Ratio Prot	c0.09	0.12		0.04	c0.14		0.04	c0.28		c0.04	0.16	
v/s Ratio Perm									0.01			0.01
v/c Ratio	0.58	0.40		0.44	0.64		0.35	0.91	0.03	0.36	0.51	0.04
Uniform Delay, d1	31.0	22.5		34.4	28.1		33.2	26.8	19.5	33.1	22.7	19.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	0.3		1.9	1.8		0.6	13.1	0.1	0.6	1.7	0.2
Delay (s)	33.9	22.8		36.3	29.8		33.8	39.9	19.6	33.7	24.4	19.6
Level of Service	C	C		D	C		C	D	B	C	C	B
Approach Delay (s)		25.8			30.6			38.3			25.7	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			31.4			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			64.9%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Commercial Scenario) Conditions
PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Market Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	53	277	22	16	165	115	53	154	33	49	59	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	53	277	22	16	165	115	53	154	33	49	59	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	280			299			578	706	150	609	660	140
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	280			299			578	706	150	609	660	140
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			83	55	96	78	84	95
cM capacity (veh/h)	1280			1259			320	340	870	226	361	882
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2	SB 3				
Volume Total	192	160	98	198	240	49	39	60				
Volume Left	53	0	16	0	53	49	0	0				
Volume Right	0	22	0	115	33	0	0	40				
cSH	1280	1700	1259	1700	365	226	361	598				
Volume to Capacity	0.04	0.09	0.01	0.12	0.66	0.22	0.11	0.10				
Queue Length 95th (ft)	3	0	1	0	112	20	9	8				
Control Delay (s)	2.5	0.0	1.4	0.0	31.8	25.2	16.2	11.7				
Lane LOS	A		A		D	D	C	B				
Approach Delay (s)	1.3		0.5		31.8	17.4						
Approach LOS					D	C						
Intersection Summary												
Average Delay			10.4									
Intersection Capacity Utilization			48.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis

2: Market Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	496	22	0	0	0	0	297	35	105	108	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						4.5		4.5	4.5	
Lane Util. Factor		0.91						0.95		1.00	0.91	
Frt		0.99						0.98		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		5050						3483		1770	5085	
Flt Permitted		1.00						1.00		0.48	1.00	
Satd. Flow (perm)		5050						3483		890	5085	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	496	22	0	0	0	0	297	35	105	108	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	519	0	0	0	0	0	322	0	105	108	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		58.5						21.5		21.5	21.5	
Effective Green, g (s)		58.5						21.5		21.5	21.5	
Actuated g/C Ratio		0.65						0.24		0.24	0.24	
Clearance Time (s)		5.5						4.5		4.5	4.5	
Vehicle Extension (s)		3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)		3282						832		212	1214	
v/s Ratio Prot								0.09			0.02	
v/s Ratio Perm		0.10								c0.12		
v/c Ratio		0.16						0.39		0.50	0.09	
Uniform Delay, d1		6.1						28.7		29.6	26.6	
Progression Factor		1.00						1.00		0.86	0.84	
Incremental Delay, d2		0.1						1.4		8.0	0.1	
Delay (s)		6.2						30.1		33.4	22.5	
Level of Service		A						C		C	C	
Approach Delay (s)		6.2			0.0			30.1			27.9	
Approach LOS		A			A			C			C	
Intersection Summary												
HCM 2000 Control Delay		18.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.25										
Actuated Cycle Length (s)		90.0						Sum of lost time (s)		10.0		
Intersection Capacity Utilization		39.6%						ICU Level of Service		A		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT
Lane Configurations					↔↔	↔		↔	↔			↔↔
Volume (vph)	0	0	0	32	156	293	17	45	265	0	0	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5		4.5	4.5			4.5
Lane Util. Factor					0.95	1.00		1.00	1.00			0.95
Frt					1.00	0.85		1.00	1.00			1.00
Flt Protected					0.99	1.00		0.95	1.00			1.00
Satd. Flow (prot)					3509	1583		1770	1863			3539
Flt Permitted					0.99	1.00		0.64	1.00			1.00
Satd. Flow (perm)					3509	1583		1198	1863			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	32	156	293	17	45	265	0	0	172
RTOR Reduction (vph)	0	0	0	0	0	256	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	188	37	0	62	265	0	0	172
Turn Type				Perm	NA	Perm	Perm	Perm	NA			NA
Protected Phases					8				2			6
Permitted Phases				8		8	2	2				
Actuated Green, G (s)					11.3	11.3		69.7	69.7			69.7
Effective Green, g (s)					11.3	11.3		69.7	69.7			69.7
Actuated g/C Ratio					0.13	0.13		0.77	0.77			0.77
Clearance Time (s)					4.5	4.5		4.5	4.5			4.5
Vehicle Extension (s)					3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)					440	198		927	1442			2740
v/s Ratio Prot									c0.14			0.05
v/s Ratio Perm					0.05	0.02		0.05				
v/c Ratio					0.43	0.19		0.07	0.18			0.06
Uniform Delay, d1					36.4	35.2		2.4	2.7			2.4
Progression Factor					1.05	2.15		0.11	0.49			1.00
Incremental Delay, d2					0.7	0.5		0.1	0.3			0.0
Delay (s)					38.9	76.3		0.4	1.6			2.5
Level of Service					D	E		A	A			A
Approach Delay (s)		0.0			61.7				1.4			2.4
Approach LOS		A			E				A			A
Intersection Summary												
HCM 2000 Control Delay			30.2		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			90.0		Sum of lost time (s)				9.0			
Intersection Capacity Utilization			39.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Market Street & 6th Street

Movement	SBR
Lane Configurations	
Volume (vph)	35
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	1.00
Adj. Flow (vph)	35
RTOR Reduction (vph)	8
Lane Group Flow (vph)	27
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	69.7
Effective Green, g (s)	69.7
Actuated g/C Ratio	0.77
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	1225
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.02
Uniform Delay, d1	2.3
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	2.4
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

4: Market Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	132	991	89	44	424	46	242	266	57	66	116	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00		1.00	0.95	1.00
Flt Protected	1.00	0.99		1.00	0.99		1.00	0.97		1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5022		1770	5011		1770	1813		1770	3539	1583
Satd. Flow (perm)	881	5022		374	5011		1264	1813		876	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	132	991	89	44	424	46	242	266	57	66	116	74
RTOR Reduction (vph)	0	12	0	0	16	0	0	9	0	0	0	42
Lane Group Flow (vph)	132	1068	0	44	454	0	242	314	0	66	116	32
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Effective Green, g (s)	39.0	39.0		39.0	39.0		36.5	36.5		36.5	36.5	36.5
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.43	0.43		0.43	0.43	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	404	2304		171	2299		542	778		376	1519	679
v/s Ratio Prot		c0.21			0.09			0.17			0.03	
v/s Ratio Perm	0.15			0.12			c0.19			0.08		0.02
v/c Ratio	0.33	0.46		0.26	0.20		0.45	0.40		0.18	0.08	0.05
Uniform Delay, d1	14.6	15.8		14.1	13.7		17.1	16.7		15.0	14.3	14.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.1	0.7		3.6	0.2		2.7	1.6		0.2	0.0	0.0
Delay (s)	16.8	16.5		17.7	13.9		19.8	18.3		15.2	14.3	14.1
Level of Service	B	B		B	B		B	B		B	B	B
Approach Delay (s)		16.5			14.2			18.9			14.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.4			HCM 2000 Level of Service			B			
HCM 2000 Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			85.0			Sum of lost time (s)			9.5			
Intersection Capacity Utilization			61.4%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Castro Street & 11th Street

						
Movement	EBL	EBT	NBT	NBR	NEL	NER
Lane Configurations		  	  		  	
Volume (vph)	194	613	1398	44	76	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	
Lane Util. Factor	0.81	0.81	0.91		0.97	
Frt	1.00	1.00	1.00		0.95	
Flt Protected	0.95	1.00	1.00		0.97	
Satd. Flow (prot)	1290	5416	4556		2984	
Flt Permitted	0.95	1.00	1.00		0.97	
Satd. Flow (perm)	1290	5416	4556		2984	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	613	1398	44	76	41
RTOR Reduction (vph)	111	65	3	0	0	0
Lane Group Flow (vph)	44	587	1439	0	117	0
Turn Type	Split	NA	NA		NA	
Protected Phases	4	4	2		8	
Permitted Phases						
Actuated Green, G (s)	24.0	24.0	29.2		16.8	
Effective Green, g (s)	24.0	24.0	29.2		16.8	
Actuated g/C Ratio	0.28	0.28	0.34		0.20	
Clearance Time (s)	5.0	5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	364	1529	1565		589	
v/s Ratio Prot	0.03	c0.11	c0.32		c0.04	
v/s Ratio Perm						
v/c Ratio	0.12	0.38	0.92		0.20	
Uniform Delay, d1	22.7	24.6	26.8		28.5	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	0.7	10.2		0.2	
Delay (s)	23.3	25.3	37.0		28.6	
Level of Service	C	C	D		C	
Approach Delay (s)		24.9	37.0		28.6	
Approach LOS		C	D		C	
Intersection Summary						
HCM 2000 Control Delay			32.5		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.56			
Actuated Cycle Length (s)			85.0		Sum of lost time (s)	15.0
Intersection Capacity Utilization			81.9%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

6: Castro Street & 12th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	249	802	36	1783	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5	4.5	5.0	5.0				
Lane Util. Factor					0.91	0.91	0.81	0.81				
Frt					0.91	0.85	1.00	1.00				
Flt Protected					1.00	1.00	0.95	1.00				
Satd. Flow (prot)					2769	1297	1290	5431				
Flt Permitted					1.00	1.00	0.95	1.00				
Satd. Flow (perm)					2769	1297	1290	5431				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	0	249	802	36	1783	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	1	15	17	10	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	649	386	15	1777	0	0	0	0
Turn Type					NA	Perm	Perm	NA				
Protected Phases					8			2				
Permitted Phases						8	2					
Actuated Green, G (s)					34.9	34.9	40.6	40.6				
Effective Green, g (s)					34.9	34.9	40.6	40.6				
Actuated g/C Ratio					0.41	0.41	0.48	0.48				
Clearance Time (s)					4.5	4.5	5.0	5.0				
Vehicle Extension (s)					3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)					1136	532	616	2594				
v/s Ratio Prot					0.23							
v/s Ratio Perm						c0.30	0.01	0.33				
v/c Ratio					0.57	0.72	0.02	0.69				
Uniform Delay, d1					19.3	21.0	11.7	17.2				
Progression Factor					1.00	1.00	0.02	0.26				
Incremental Delay, d2					0.7	4.9	0.0	1.0				
Delay (s)					20.0	25.9	0.3	5.5				
Level of Service					B	C	A	A				
Approach Delay (s)		0.0			22.2			5.4			0.0	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			11.6		HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			85.0		Sum of lost time (s)				9.5			
Intersection Capacity Utilization			70.8%		ICU Level of Service				C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

7: Broadway & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	155	87	12	130	101	49	238	17	328	294	85
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	155	87	12	130	101	49	238	17	328	294	85
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total (vph)	269	243	304	475	232							
Volume Left (vph)	27	12	49	328	0							
Volume Right (vph)	87	101	17	0	85							
Hadj (s)	-0.14	-0.21	0.03	0.38	-0.22							
Departure Headway (s)	7.4	7.5	7.4	7.7	7.1							
Degree Utilization, x	0.56	0.51	0.62	1.01	0.45							
Capacity (veh/h)	457	445	467	464	507							
Control Delay (s)	19.4	17.9	21.9	71.3	14.6							
Approach Delay (s)	19.4	17.9	21.9	52.7								
Approach LOS	C	C	C	F								
Intersection Summary												
Delay			35.1									
Level of Service			E									
Intersection Capacity Utilization			70.2%		ICU Level of Service					C		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

8: Broadway & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	20	10	13	20	49	59	728	161	135	610	84
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	26	20	10	13	20	49	59	728	161	135	610	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											288	
pX, platoon unblocked	0.89	0.89	0.89	0.89	0.89		0.89					
vC, conflicting volume	1463	1929	347	1522	1890	444	694			889		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1277	1799	25	1342	1756	444	414			889		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	58	63	99	78	66	91	94			82		
cM capacity (veh/h)	62	55	932	58	58	561	1018			758		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	56	82	423	525	440	389						
Volume Left	26	13	59	0	135	0						
Volume Right	10	49	0	161	0	84						
cSH	70	125	1018	1700	758	1700						
Volume to Capacity	0.80	0.65	0.06	0.31	0.18	0.23						
Queue Length 95th (ft)	95	87	5	0	16	0						
Control Delay (s)	154.3	76.4	1.8	0.0	4.9	0.0						
Lane LOS	F	F	A		A							
Approach Delay (s)	154.3	76.4	0.8		2.6							
Approach LOS	F	F										
Intersection Summary												
Average Delay			9.3									
Intersection Capacity Utilization			67.7%		ICU Level of Service				C			
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #8
Broadway / 2nd Street
Cumulative plus Commercial
PM Peak Hour

PART A or PART B satisfied YES ☐ NO ☒

PART A

PART A satisfied YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and

Yes ☐ No ☒

2.4

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

Yes ☐ No ☒

80

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☐ No ☒

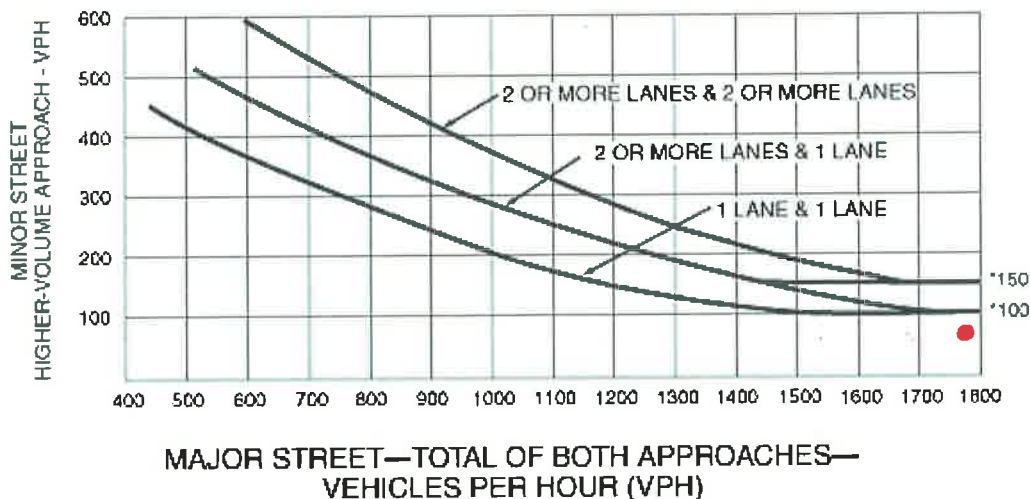
1915

PART B

PART B satisfied YES ☐ NO ☒

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1777 / 82

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

9: Broadway & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	133	28	10	118	117	77	464	18	106	554	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.97			0.94			1.00			0.97	
Flt Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1814			1739			3498			3413	
Flt Permitted	0.59	1.00			0.99			0.73			0.79	
Satd. Flow (perm)	1091	1814			1724			2583			2709	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	106	133	28	10	118	117	77	464	18	106	554	162
RTOR Reduction (vph)	0	10	0	0	44	0	0	3	0	0	28	0
Lane Group Flow (vph)	106	151	0	0	201	0	0	556	0	0	794	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.0	32.0			32.0			34.0			34.0	
Effective Green, g (s)	32.0	32.0			32.0			34.0			34.0	
Actuated g/C Ratio	0.43	0.43			0.43			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)	465	773			735			1170			1228	
v/s Ratio Prot		0.08										
v/s Ratio Perm	0.10				0.12			0.22			0.29	
v/c Ratio	0.23	0.19			0.27			0.47			0.65	
Uniform Delay, d1	13.7	13.4			14.0			14.3			15.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.1	0.6			0.9			1.4			2.6	
Delay (s)	14.8	14.0			14.9			15.7			18.5	
Level of Service	B	B			B			B			B	
Approach Delay (s)		14.3			14.9			15.7			18.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.6									
HCM 2000 Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			75.0									
Intersection Capacity Utilization			76.8%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Broadway & 5th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	1162	339	84	0	0	0	0	479	582	879	477	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5		
Lane Util. Factor	0.91	0.91	1.00					0.95	1.00	0.97	1.00		
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	0.97	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1610	3286	1583					3539	1583	3433	1863		
Flt Permitted	0.95	0.97	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1610	3286	1583					3539	1583	3433	1863		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1162	339	84	0	0	0	0	479	582	879	477	0	
RTOR Reduction (vph)	0	0	56	0	0	0	0	0	129	0	0	0	
Lane Group Flow (vph)	581	920	28	0	0	0	0	479	453	879	477	0	
Turn Type	Split	NA	Prot					NA	Perm	Prot	NA		
Protected Phases	4	4	4					2		1	6		
Permitted Phases									2				
Actuated Green, G (s)	30.5	30.5	30.5					24.5	24.5	21.5	49.5		
Effective Green, g (s)	30.5	30.5	30.5					24.5	24.5	21.5	49.5		
Actuated g/C Ratio	0.34	0.34	0.34					0.27	0.27	0.24	0.55		
Clearance Time (s)	5.5	5.5	5.5					3.5	3.5	4.5	4.5		
Vehicle Extension (s)	2.0	2.0	2.0					2.0	2.0	2.0	2.0		
Lane Grp Cap (vph)	545	1113	536					963	430	820	1024		
v/s Ratio Prot	c0.36	0.28	0.02					0.14		c0.26	0.26		
v/s Ratio Perm									c0.29				
v/c Ratio	1.07	1.02dl	0.05					0.50	1.05	1.07	0.47		
Uniform Delay, d1	29.8	27.3	20.0					27.6	32.8	34.2	12.3		
Progression Factor	0.90	0.90	0.77					1.00	1.00	1.31	1.87		
Incremental Delay, d2	57.3	4.9	0.0					1.8	58.3	49.6	0.1		
Delay (s)	84.1	29.4	15.4					29.4	91.1	94.6	23.1		
Level of Service	F	C	B					C	F	F	C		
Approach Delay (s)		48.7			0.0			63.2			69.4		
Approach LOS		D			A			E			E		
Intersection Summary													
HCM 2000 Control Delay			59.6									HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			1.06										
Actuated Cycle Length (s)			90.0							13.5			
Intersection Capacity Utilization			143.4%									ICU Level of Service	H
Analysis Period (min)			15										
dl Defacto Left Lane. Recode with 1 though lane as a left lane.													
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

11: Broadway & 6th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰	↶	↷	↰	↶			↶	↷
Volume (vph)	0	0	0	327	174	791	112	402	0	0	902	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1593	3185	1425	1593	3185			4547	
Flt Permitted				0.95	1.00	1.00	0.95	1.00			1.00	
Satd. Flow (perm)				1593	3185	1425	1593	3185			4547	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	327	174	791	112	402	0	0	902	41
RTOR Reduction (vph)	0	0	0	0	0	212	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	327	174	579	112	402	0	0	938	0
Turn Type				Split	NA	Prot	Prot	NA			NA	
Protected Phases				8	8	8	5	2			6	
Permitted Phases												
Actuated Green, G (s)				37.9	37.9	37.9	15.2	44.1			24.9	
Effective Green, g (s)				37.9	37.9	37.9	15.2	44.1			24.9	
Actuated g/C Ratio				0.42	0.42	0.42	0.17	0.49			0.28	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				670	1341	600	269	1560			1258	
v/s Ratio Prot				0.21	0.05	c0.41	c0.07	0.13			c0.21	
v/s Ratio Perm												
v/c Ratio				0.49	0.13	0.96	0.42	0.26			0.75	
Uniform Delay, d1				19.0	16.0	25.4	33.4	13.4			29.7	
Progression Factor				1.00	1.00	1.00	0.86	1.03			1.00	
Incremental Delay, d2				0.6	0.0	27.8	0.6	0.2			4.0	
Delay (s)				19.5	16.0	53.2	29.3	14.0			33.7	
Level of Service				B	B	D	C	B			C	
Approach Delay (s)		0.0			39.7			17.4			33.7	
Approach LOS		A			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			33.4									
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			90.0									
Intersection Capacity Utilization			143.4%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Broadway & 11th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	813	314	0	0	0	0	491	80	127	922	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.91	1.00					0.95		1.00	0.95	
Frt		1.00	0.85					0.98		1.00	1.00	
Flt Protected		0.99	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		4532	1425					3118		1593	3185	
Flt Permitted		0.99	1.00					1.00		0.37	1.00	
Satd. Flow (perm)		4532	1425					3118		621	3185	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	813	314	0	0	0	0	491	80	127	922	0
RTOR Reduction (vph)	0	0	56	0	0	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	1012	258	0	0	0	0	550	0	127	922	0
Turn Type	Split	NA	Perm					NA		pm+pt	NA	
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Actuated Green, G (s)		23.0	23.0					21.0		29.0	29.0	
Effective Green, g (s)		23.0	23.0					21.0		29.0	29.0	
Actuated g/C Ratio		0.38	0.38					0.35		0.48	0.48	
Clearance Time (s)		4.0	4.0					4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0					3.0		3.0	3.0	
Lane Grp Cap (vph)		1737	546					1091		364	1539	
v/s Ratio Prot		c0.22						0.18		0.02	c0.29	
v/s Ratio Perm			0.18							0.14		
v/c Ratio		0.58	0.47					0.50		0.35	0.60	
Uniform Delay, d1		14.7	13.9					15.4		12.2	11.3	
Progression Factor		1.00	1.00					1.00		0.72	0.77	
Incremental Delay, d2		0.5	0.6					1.7		0.4	1.3	
Delay (s)		15.2	14.6					17.1		9.2	10.0	
Level of Service		B	B					B		A	B	
Approach Delay (s)		15.0			0.0			17.1			9.9	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.6						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.64										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)		12.0		
Intersection Capacity Utilization		71.0%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

13: Broadway & 12th Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔↔↔	
Volume (vph)	0	0	0	215	692	127	136	484	0	0	801	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.91	
Frt					0.98		1.00	1.00			0.98	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					3094		1593	3185			4495	
Flt Permitted					0.99		0.23	1.00			1.00	
Satd. Flow (perm)					3094		378	3185			4495	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	215	692	127	136	484	0	0	801	109
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	0	1016	0	136	484	0	0	881	0
Turn Type				Split	NA		pm+pt	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Actuated Green, G (s)					26.0		26.0	26.0			18.0	
Effective Green, g (s)					26.0		26.0	26.0			18.0	
Actuated g/C Ratio					0.43		0.43	0.43			0.30	
Clearance Time (s)					4.0		4.0	4.0			4.0	
Lane Grp Cap (vph)					1340		244	1380			1348	
v/s Ratio Prot					c0.33		c0.04	0.15			c0.20	
v/s Ratio Perm							0.20					
v/c Ratio					0.76		0.56	0.35			0.65	
Uniform Delay, d1					14.3		17.8	11.4			18.3	
Progression Factor					1.00		0.46	0.50			1.53	
Incremental Delay, d2					4.1		7.7	0.6			1.5	
Delay (s)					18.4		16.0	6.3			29.5	
Level of Service					B		B	A			C	
Approach Delay (s)		0.0			18.4			8.4			29.5	
Approach LOS		A			B			A			C	
Intersection Summary												
HCM 2000 Control Delay			19.9				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)		12.0			
Intersection Capacity Utilization			71.0%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

14: Broadway & 14th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	328	112	5	582	175	2	569	39	0	998	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5			5.5			5.5	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frt		0.96			0.97			0.99			0.98	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3063			3075			3154			3131	
Flt Permitted		0.94			0.95			0.95			1.00	
Satd. Flow (perm)		2894			2928			3002			3131	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	328	112	5	582	175	2	569	39	0	998	127
RTOR Reduction (vph)	0	29	0	0	46	0	0	8	0	0	16	0
Lane Group Flow (vph)	0	417	0	0	716	0	0	602	0	0	1109	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Actuated Green, G (s)		23.5			23.5			25.5			25.5	
Effective Green, g (s)		23.5			23.5			25.5			25.5	
Actuated g/C Ratio		0.39			0.39			0.42			0.42	
Clearance Time (s)		5.5			5.5			5.5			5.5	
Lane Grp Cap (vph)		1133			1146			1275			1330	
v/s Ratio Prot											c0.35	
v/s Ratio Perm		0.14			c0.24			0.20				
v/c Ratio		0.37			0.62			0.47			0.83	
Uniform Delay, d1		13.0			14.7			12.4			15.4	
Progression Factor		1.00			1.00			1.42			1.00	
Incremental Delay, d2		0.9			2.6			1.2			6.3	
Delay (s)		13.9			17.3			18.8			21.6	
Level of Service		B			B			B			C	
Approach Delay (s)		13.9			17.3			18.8			21.6	
Approach LOS		B			B			B			C	
Intersection Summary												
HCM 2000 Control Delay			18.7			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			60.0			Sum of lost time (s)			11.0			
Intersection Capacity Utilization			72.4%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

15: Franklin Street & 2nd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	87	39	18	83	0	0	0	0	9	32	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	87	39	18	83	0	0	0	0	9	32	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					384							
pX, platoon unblocked												
vC, conflicting volume	83			126			260	226	106	226	245	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	83			126			260	226	106	226	245	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	100	99	95	98
cM capacity (veh/h)	1514			1460			649	665	948	723	649	976
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	126	101	25	34								
Volume Left	0	18	9	0								
Volume Right	39	0	0	18								
cSH	1700	1460	674	789								
Volume to Capacity	0.07	0.01	0.04	0.04								
Queue Length 95th (ft)	0	1	3	3								
Control Delay (s)	0.0	1.4	10.5	9.8								
Lane LOS		A	B	A								
Approach Delay (s)	0.0	1.4	10.1									
Approach LOS			B									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			25.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

16: Franklin Street & 3rd Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											 	
Volume (veh/h)	0	208	12	30	222	0	0	0	0	12	18	74
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	208	12	30	222	0	0	0	0	12	18	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		367			383							
pX, platoon unblocked												
vC, conflicting volume	222			220			579	496	214	496	502	222
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			220			579	496	214	496	502	222
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	97	96	91
cM capacity (veh/h)	1347			1349			370	465	826	476	461	818
Direction, Lane #	EB 1	WB 1	SB 1	SB 2								
Volume Total	220	252	21	83								
Volume Left	0	30	12	0								
Volume Right	12	0	0	74								
cSH	1700	1349	469	754								
Volume to Capacity	0.13	0.02	0.04	0.11								
Queue Length 95th (ft)	0	2	4	9								
Control Delay (s)	0.0	1.1	13.0	10.4								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	1.1	10.9									
Approach LOS			B									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			38.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	170	185	234	134	88	86
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	170	185	234	134	88	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)	385					
pX, platoon unblocked						
vC, conflicting volume	0		470	340	525	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		470	340	525	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	90		34	74	79	92
cM capacity (veh/h)	1623		357	521	410	1085
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	170	185	368	88	86	
Volume Left	170	0	234	0	0	
Volume Right	0	185	0	0	86	
cSH	1623	1700	403	410	1085	
Volume to Capacity	0.10	0.11	0.91	0.21	0.08	
Queue Length 95th (ft)	9	0	244	20	6	
Control Delay (s)	7.5	0.0	57.9	16.2	8.6	
Lane LOS	A		F	C	A	
Approach Delay (s)	3.6		57.9	12.4		
Approach LOS			F	B		
Intersection Summary						
Average Delay			27.6			
Intersection Capacity Utilization			42.8%	ICU Level of Service		A
Analysis Period (min)			15			

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #17
Webster Street / Embarcadero
Cumulative plus Commercial
PM Peak Hour

PART A or PART B satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

5.9

Yes ☒ No ☐

368

Yes ☒ No ☐

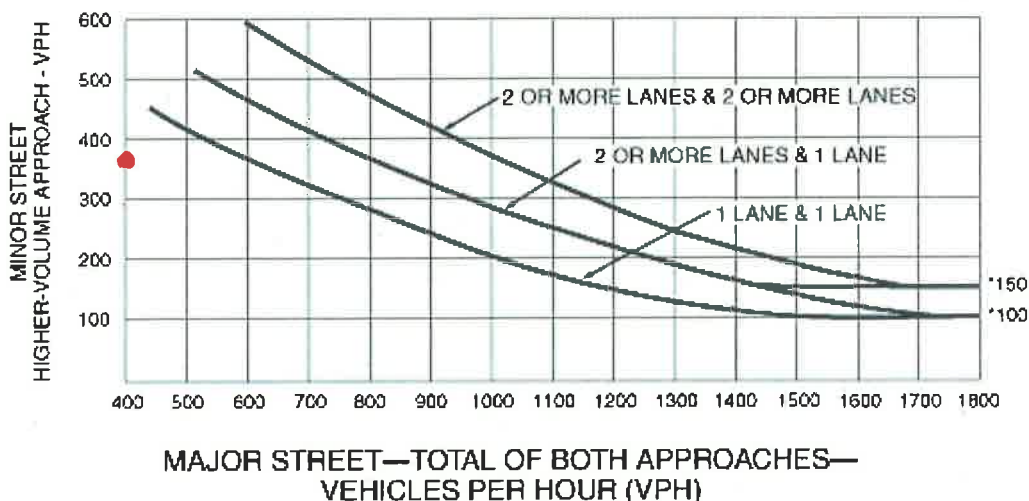
897

PART B

PART B satisfied YES ☐ NO ☒

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

18: Harrison Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	334	1529	0	0	0	0	0	688	1207	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0	5.0			
Lane Util. Factor		0.91						0.91	0.88			
Frt		1.00						1.00	0.85			
Flt Protected		0.99						1.00	1.00			
Satd. Flow (prot)		4536						4577	2508			
Flt Permitted		0.99						1.00	1.00			
Satd. Flow (perm)		4536						4577	2508			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	334	1529	0	0	0	0	0	688	1207	0	0	0
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	20	0	0	0
Lane Group Flow (vph)	0	1840	0	0	0	0	0	688	1187	0	0	0
Turn Type	Perm	NA						NA	custom			
Protected Phases		2						1				
Permitted Phases	2								5			
Actuated Green, G (s)		32.0						18.0	29.0			
Effective Green, g (s)		32.0						18.0	29.0			
Actuated g/C Ratio		0.53						0.30	0.48			
Clearance Time (s)		5.0						5.0	5.0			
Vehicle Extension (s)		3.0						3.0	3.0			
Lane Grp Cap (vph)		2419						1373	1212			
v/s Ratio Prot								0.15				
v/s Ratio Perm		0.41							c0.47			
v/c Ratio		0.76						0.50	0.98			
Uniform Delay, d1		11.0						17.3	15.2			
Progression Factor		1.00						1.00	1.00			
Incremental Delay, d2		2.3						1.3	21.3			
Delay (s)		13.3						18.6	36.5			
Level of Service		B						B	D			
Approach Delay (s)		13.3			0.0			30.0			0.0	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay		21.7						HCM 2000 Level of Service	C			
HCM 2000 Volume to Capacity ratio		0.93										
Actuated Cycle Length (s)		60.0						Sum of lost time (s)	10.0			
Intersection Capacity Utilization		95.6%						ICU Level of Service	F			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

19: Jackson Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	622	450	0	0	0	0	691	39	106	117	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5						5.5		5.5	5.5	
Lane Util. Factor		0.91						1.00		1.00	1.00	
Frt		0.95						0.99		1.00	1.00	
Flt Protected		0.99						1.00		0.95	1.00	
Satd. Flow (prot)		4783						1849		1770	1863	
Flt Permitted		0.99						1.00		0.14	1.00	
Satd. Flow (perm)		4783						1849		253	1863	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	298	622	450	0	0	0	0	691	39	106	117	0
RTOR Reduction (vph)	0	117	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	1253	0	0	0	0	0	728	0	106	117	0
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		4						2			6	
Permitted Phases	4									6		
Actuated Green, G (s)		34.5						29.5		29.5	29.5	
Effective Green, g (s)		34.5						29.5		29.5	29.5	
Actuated g/C Ratio		0.46						0.39		0.39	0.39	
Clearance Time (s)		5.5						5.5		5.5	5.5	
Lane Grp Cap (vph)		2200						727		99	732	
v/s Ratio Prot								0.39			0.06	
v/s Ratio Perm		0.26								c0.42		
v/c Ratio		0.57						1.00		1.07	0.16	
Uniform Delay, d1		14.8						22.8		22.8	14.7	
Progression Factor		1.00						1.00		0.69	0.70	
Incremental Delay, d2		1.1						33.6		110.1	0.5	
Delay (s)		15.9						56.3		125.8	10.7	
Level of Service		B						E		F	B	
Approach Delay (s)		15.9			0.0			56.3			65.4	
Approach LOS		B			A			E			E	
Intersection Summary												
HCM 2000 Control Delay		33.4						HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio		0.80										
Actuated Cycle Length (s)		75.0						Sum of lost time (s)		11.0		
Intersection Capacity Utilization		112.0%						ICU Level of Service		H		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Jackson Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	11	389	53	474	434	0	0	248	514
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.5	5.5	5.5	5.5	5.5			5.5	4.0
Lane Util. Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1593	1676	1425	1593	1676			1676	1425
Flt Permitted				0.95	1.00	1.00	0.61	1.00			1.00	1.00
Satd. Flow (perm)				1593	1676	1425	1014	1676			1676	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	11	389	53	474	434	0	0	248	514
RTOR Reduction (vph)	0	0	0	0	0	39	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	11	389	14	474	434	0	0	248	514
Turn Type				Split	NA	Perm	Perm	NA			NA	Free
Protected Phases				8	8			2			6	
Permitted Phases						8	2					Free
Actuated Green, G (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Effective Green, g (s)				19.5	19.5	19.5	44.5	44.5			44.5	75.0
Actuated g/C Ratio				0.26	0.26	0.26	0.59	0.59			0.59	1.00
Clearance Time (s)				5.5	5.5	5.5	5.5	5.5			5.5	
Lane Grp Cap (vph)				414	435	370	601	994			994	1425
v/s Ratio Prot				0.01	c0.23			0.26			0.15	
v/s Ratio Perm						0.01	c0.47					0.36
v/c Ratio				0.03	0.89	0.04	0.79	0.44			0.25	0.36
Uniform Delay, d1				20.7	26.8	20.7	11.7	8.4			7.3	0.0
Progression Factor				1.00	1.00	1.00	0.59	0.59			1.00	1.00
Incremental Delay, d2				0.1	23.4	0.2	4.8	0.6			0.6	0.7
Delay (s)				20.8	50.2	20.9	11.7	5.5			7.9	0.7
Level of Service				C	D	C	B	A			A	A
Approach Delay (s)		0.0			46.1			8.7			3.0	
Approach LOS		A			D			A			A	
Intersection Summary												
HCM 2000 Control Delay			14.7		HCM 2000 Level of Service					B		
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					11.0		
Intersection Capacity Utilization			112.0%		ICU Level of Service					H		
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: Jackson Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	41	1079	517	0	0	0	0	313	144	36	338	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	4.0					4.0			4.0		
Lane Util. Factor		0.86	0.86					1.00			1.00		
Frt		0.98	0.85					0.96			1.00		
Flt Protected		1.00	1.00					1.00			1.00		
Satd. Flow (prot)		4242	1226					1605			1668		
Flt Permitted		1.00	1.00					1.00			0.94		
Satd. Flow (perm)		4242	1226					1605			1572		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	41	1079	517	0	0	0	0	313	144	36	338	0	
RTOR Reduction (vph)	0	27	0	0	0	0	0	10	0	0	0	0	
Lane Group Flow (vph)	0	1243	367	0	0	0	0	447	0	0	374	0	
Turn Type	Split	NA	Free					NA		Perm	NA		
Protected Phases	4	4						2			6		
Permitted Phases			Free							6			
Actuated Green, G (s)		22.0	60.0					29.0			29.0		
Effective Green, g (s)		22.0	60.0					29.0			29.0		
Actuated g/C Ratio		0.37	1.00					0.48			0.48		
Clearance Time (s)		5.0						4.0			4.0		
Vehicle Extension (s)		3.0						3.0			3.0		
Lane Grp Cap (vph)		1555	1226					775			759		
v/s Ratio Prot		c0.29						c0.28					
v/s Ratio Perm			0.30								0.24		
v/c Ratio		0.80	0.30					0.58			0.49		
Uniform Delay, d1		17.0	0.0					11.1			10.5		
Progression Factor		1.00	1.00					1.00			1.00		
Incremental Delay, d2		4.4	0.6					3.1			2.3		
Delay (s)		21.4	0.6					14.2			12.8		
Level of Service		C	A					B			B		
Approach Delay (s)		16.8			0.0			14.2			12.8		
Approach LOS		B			A			B			B		
Intersection Summary													
HCM 2000 Control Delay			15.7									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.67										
Actuated Cycle Length (s)			60.0									Sum of lost time (s)	9.0
Intersection Capacity Utilization			89.0%									ICU Level of Service	E
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

22: Madison Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	725	35	0	0	0	0	0	0	931	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0								4.0	4.0	
Lane Util. Factor		0.91								0.91	0.91	
Frt		0.99								1.00	1.00	
Flt Protected		1.00								0.95	0.96	
Satd. Flow (prot)		5050								1610	3265	
Flt Permitted		1.00								0.95	0.96	
Satd. Flow (perm)		5050								1610	3265	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	725	35	0	0	0	0	0	0	931	142	0
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	0	35	35	0
Lane Group Flow (vph)	0	749	0	0	0	0	0	0	0	430	573	0
Turn Type		NA								Perm	NA	
Protected Phases		4									6	
Permitted Phases										6		
Actuated Green, G (s)		16.0								22.0	22.0	
Effective Green, g (s)		16.0								22.0	22.0	
Actuated g/C Ratio		0.35								0.48	0.48	
Clearance Time (s)		4.0								4.0	4.0	
Lane Grp Cap (vph)		1756								770	1561	
v/s Ratio Prot		c0.15										
v/s Ratio Perm										c0.27	0.18	
v/c Ratio		0.43								0.56	0.37	
Uniform Delay, d1		11.5								8.5	7.6	
Progression Factor		1.00								1.00	1.00	
Incremental Delay, d2		0.8								2.9	0.7	
Delay (s)		12.2								11.5	8.3	
Level of Service		B								B	A	
Approach Delay (s)		12.2			0.0			0.0			9.6	
Approach LOS		B			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		10.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		46.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		42.1%			ICU Level of Service			A				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Madison Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	18	210	0	0	0	0	0	1100	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0						4.0	
Lane Util. Factor					0.91						0.91	
Frt					1.00						0.97	
Flt Protected					1.00						1.00	
Satd. Flow (prot)					4559						4459	
Flt Permitted					1.00						1.00	
Satd. Flow (perm)					4559						4459	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	18	210	0	0	0	0	0	1100	227
RTOR Reduction (vph)	0	0	0	0	16	0	0	0	0	0	70	0
Lane Group Flow (vph)	0	0	0	0	212	0	0	0	0	0	1257	0
Turn Type				Split	NA						NA	
Protected Phases				8	8						6	
Permitted Phases												
Actuated Green, G (s)					15.0						22.0	
Effective Green, g (s)					15.0						22.0	
Actuated g/C Ratio					0.33						0.49	
Clearance Time (s)					4.0						4.0	
Lane Grp Cap (vph)					1519						2179	
v/s Ratio Prot					c0.05						c0.28	
v/s Ratio Perm												
v/c Ratio					0.14						0.58	
Uniform Delay, d1					10.5						8.2	
Progression Factor					0.88						1.00	
Incremental Delay, d2					0.1						1.1	
Delay (s)					9.3						9.3	
Level of Service					A						A	
Approach Delay (s)		0.0			9.3			0.0			9.3	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay			9.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.40									
Actuated Cycle Length (s)			45.0		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			42.1%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

24: Madison Street & 7th Street

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	1045	342	0	0	0	0	0	0	309	905	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0										4.0	
Lane Util. Factor		0.86										0.91	
Frt		0.96										1.00	
Flt Protected		1.00										0.99	
Satd. Flow (prot)		5554										4519	
Flt Permitted		1.00										0.99	
Satd. Flow (perm)		5554										4519	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1045	342	0	0	0	0	0	0	309	905	0	
RTOR Reduction (vph)	0	50	0	0	0	0	0	0	0	0	17	0	
Lane Group Flow (vph)	0	1337	0	0	0	0	0	0	0	0	1197	0	
Turn Type		NA								Perm	NA		
Protected Phases		4								6			
Permitted Phases										6			
Actuated Green, G (s)		24.0								28.0			
Effective Green, g (s)		24.0								28.0			
Actuated g/C Ratio		0.40								0.47			
Clearance Time (s)		4.0								4.0			
Vehicle Extension (s)		3.0								3.0			
Lane Grp Cap (vph)		2221								2108			
v/s Ratio Prot		c0.24											
v/s Ratio Perm										0.26			
v/c Ratio		0.60								0.57			
Uniform Delay, d1		14.2								11.6			
Progression Factor		0.37								1.00			
Incremental Delay, d2		0.9								1.1			
Delay (s)		6.1								12.7			
Level of Service		A								B			
Approach Delay (s)		6.1				0.0		0.0		12.7			
Approach LOS		A				A		A		B			
Intersection Summary													
HCM 2000 Control Delay			9.2		HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			56.3%		ICU Level of Service				B				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 			 	
Volume (veh/h)	230	0	83	5	0	1	263	679	0	0	736	251
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	230	0	83	5	0	1	263	679	0	0	736	251
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											563	
pX, platoon unblocked												
vC, conflicting volume	1728	2066	494	1656	2192	340	987			679		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1728	2066	494	1656	2192	340	987			679		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	84	87	100	100	62			100		
cM capacity (veh/h)	40	33	521	38	28	656	696			909		
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	230	83	263	340	340	491	496					
Volume Left	230	0	263	0	0	0	0					
Volume Right	0	83	0	0	0	0	251					
cSH	40	521	696	1700	1700	1700	1700					
Volume to Capacity	5.75	0.16	0.38	0.20	0.20	0.29	0.29					
Queue Length 95th (ft)	Err	14	44	0	0	0	0					
Control Delay (s)	Err	13.2	13.3	0.0	0.0	0.0	0.0					
Lane LOS	F	B	B									
Approach Delay (s)	7351.0		3.7			0.0						
Approach LOS	F											
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%		ICU Level of Service					H		
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

Intersection #25
Oak Street / Embarcadero
Cumulative plus Commercial
PM Peak Hour

PART A or **PART B** satisfied YES ☒ NO ☐

PART A

PART A satisfied YES ☒ NO ☐

(All parts 1, 2, and 3 below must be satisfied)

1. The total stopped time delay experienced by the traffic on one minor-street approach controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach; or 5 vehicle-hours for a two-lane approach, and
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

Yes ☒ No ☐

639.1

Yes ☒ No ☐

313

Yes ☒ No ☐

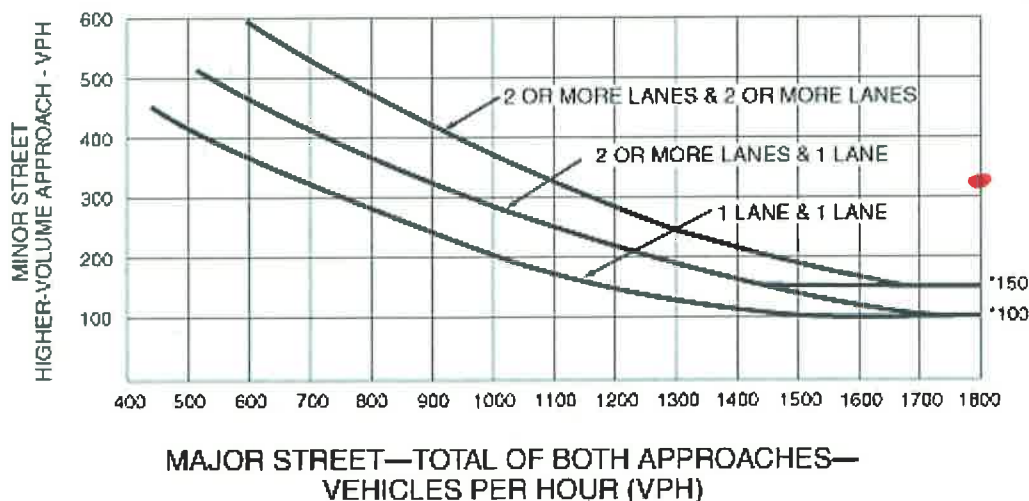
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PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



1929/313

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

HCM Signalized Intersection Capacity Analysis

26: Oak Street & 3rd Street

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	193	77	136	953	955	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1729		1770	1863	1863	1583
Flt Permitted	0.97		0.14	1.00	1.00	1.00
Satd. Flow (perm)	1729		270	1863	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	193	77	136	953	955	210
RTOR Reduction (vph)	26	0	0	0	0	77
Lane Group Flow (vph)	244	0	136	953	955	133
Turn Type	NA		Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	12.9		36.4	36.4	36.4	36.4
Effective Green, g (s)	12.9		36.4	36.4	36.4	36.4
Actuated g/C Ratio	0.23		0.64	0.64	0.64	0.64
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	389		171	1183	1183	1005
v/s Ratio Prot	c0.14			0.51	c0.51	
v/s Ratio Perm			0.50			0.08
v/c Ratio	0.63		0.80	0.81	0.81	0.13
Uniform Delay, d1	20.0		7.7	7.8	7.8	4.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1		30.7	5.9	6.0	0.3
Delay (s)	23.2		38.4	13.7	13.8	4.4
Level of Service	C		D	B	B	A
Approach Delay (s)	23.2			16.8	12.1	
Approach LOS	C			B	B	
Intersection Summary						
HCM 2000 Control Delay			15.3	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.76			
Actuated Cycle Length (s)			57.3	Sum of lost time (s)		8.0
Intersection Capacity Utilization			83.2%	ICU Level of Service		E
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

27: Oak Street & 5th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	1016	140	0	0	0	0	917	396	6	261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.91						0.95			1.00	
Frt		0.99						0.95			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		4966						3379			1861	
Flt Permitted		0.99						1.00			0.60	
Satd. Flow (perm)		4966						3379			1111	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	246	1016	140	0	0	0	0	917	396	6	261	0
RTOR Reduction (vph)	0	30	0	0	0	0	0	45	0	0	0	0
Lane Group Flow (vph)	0	1372	0	0	0	0	0	1268	0	0	267	0
Turn Type	Split	NA						NA		Perm	NA	
Protected Phases	4	4						2			6	
Permitted Phases										6		
Actuated Green, G (s)		22.0						15.0			15.0	
Effective Green, g (s)		22.0						15.0			15.0	
Actuated g/C Ratio		0.49						0.33			0.33	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		2427						1126			370	
v/s Ratio Prot		c0.28						c0.38				
v/s Ratio Perm											0.24	
v/c Ratio		0.57						1.13			0.72	
Uniform Delay, d1		8.1						15.0			13.2	
Progression Factor		1.00						1.00			1.24	
Incremental Delay, d2		1.0						68.4			11.3	
Delay (s)		9.1						83.4			27.6	
Level of Service		A						F			C	
Approach Delay (s)		9.1			0.0			83.4			27.6	
Approach LOS		A			A			F			C	
Intersection Summary												
HCM 2000 Control Delay		43.5						HCM 2000 Level of Service		D		
HCM 2000 Volume to Capacity ratio		0.79										
Actuated Cycle Length (s)		45.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		72.4%						ICU Level of Service		C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

28: Oak Street & 6th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	198	85	506	163	678	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0				
Lane Util. Factor					0.91	0.91		0.95				
Frt					0.93	0.85		1.00				
Flt Protected					0.98	1.00		0.99				
Satd. Flow (prot)					2784	1297		3155				
Flt Permitted					0.98	1.00		0.99				
Satd. Flow (perm)					2784	1297		3155				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	198	85	506	163	678	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	37	37	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	499	216	0	841	0	0	0	0
Turn Type				Split	NA	Perm	Split	NA				
Protected Phases				8	8		2	2				
Permitted Phases						8						
Actuated Green, G (s)					22.0	22.0		15.0				
Effective Green, g (s)					22.0	22.0		15.0				
Actuated g/C Ratio					0.49	0.49		0.33				
Clearance Time (s)					4.0	4.0		4.0				
Lane Grp Cap (vph)					1361	634		1051				
v/s Ratio Prot					c0.18			c0.27				
v/s Ratio Perm						0.17						
v/c Ratio					0.37	0.34		0.80				
Uniform Delay, d1					7.2	7.1		13.6				
Progression Factor					1.00	1.00		0.92				
Incremental Delay, d2					0.8	1.5		0.6				
Delay (s)					7.9	8.5		13.1				
Level of Service					A	A		B				
Approach Delay (s)		0.0			8.1			13.1			0.0	
Approach LOS		A			A			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.7				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			45.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			56.0%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

29: Oak Street & 7th Street

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	1035	0	0	0	0	0	1060	211	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.86						0.91				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		5729						4463				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		5729						4463				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	161	1035	0	0	0	0	0	1060	211	0	0	0
RTOR Reduction (vph)	0	18	0	0	0	0	0	28	0	0	0	0
Lane Group Flow (vph)	0	1178	0	0	0	0	0	1243	0	0	0	0
Turn Type	Perm	NA						NA				
Protected Phases		4						2				
Permitted Phases	4											
Actuated Green, G (s)		21.0						24.2				
Effective Green, g (s)		21.0						24.2				
Actuated g/C Ratio		0.39						0.45				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		3.0						3.0				
Lane Grp Cap (vph)		2219						1992				
v/s Ratio Prot								c0.28				
v/s Ratio Perm		0.21										
v/c Ratio		0.53						0.62				
Uniform Delay, d1		12.8						11.5				
Progression Factor		1.00						1.00				
Incremental Delay, d2		0.2						1.5				
Delay (s)		13.0						13.0				
Level of Service		B						B				
Approach Delay (s)		13.0			0.0			13.0			0.0	
Approach LOS		B			A			B			A	
Intersection Summary												
HCM 2000 Control Delay		13.0						HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio		0.58										
Actuated Cycle Length (s)		54.2						Sum of lost time (s)		9.0		
Intersection Capacity Utilization		75.1%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	74	885	57	56	734	623	39	19	27	750	40	97
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	74	885	57	56	734	623	39	19	27	750	40	97
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total (vph)	1016	790	623	85	887							
Volume Left (vph)	74	56	0	39	750							
Volume Right (vph)	57	0	623	27	97							
Hadj (s)	0.01	0.07	-0.67	-0.06	0.14							
Departure Headway (s)	7.7	8.1	7.4	9.5	7.7							
Degree Utilization, x	2.17	1.78	1.28	0.22	1.90							
Capacity (veh/h)	477	449	496	374	476							
Control Delay (s)	549.7	379.4	162.2	15.2	430.2							
Approach Delay (s)	549.7	283.6		15.2	430.2							
Approach LOS	F	F		C	F							
Intersection Summary												
Delay			394.6									
Level of Service			F									
Intersection Capacity Utilization			162.1%		ICU Level of Service					H		
Analysis Period (min)			15									

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways
Warrant 3 (Peak Hour) Traffic Signal Warrant Worksheet

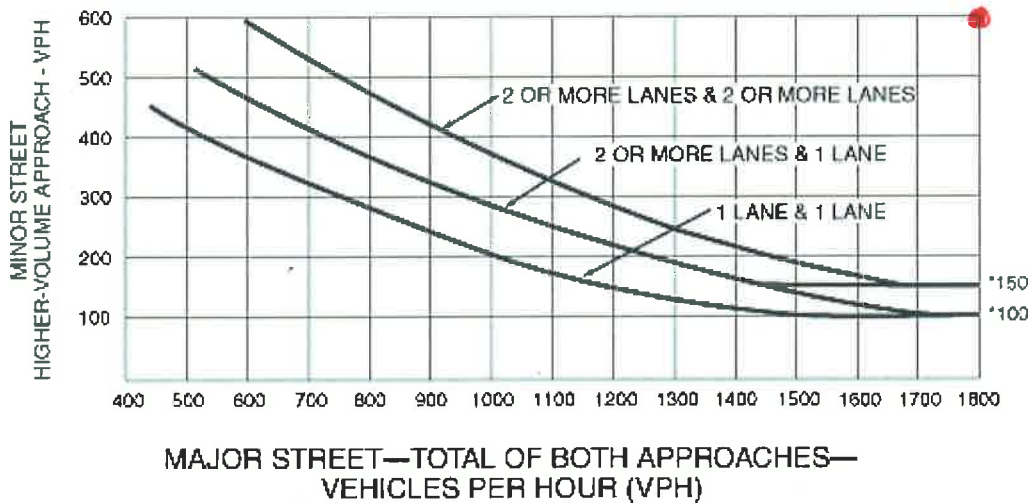
Intersection #30
5th Avenue / Embarcadero
Cumulative plus Commercial
PM Peak Hour

PART B

PART B satisfied YES ☒ NO ☐

The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in **Figure 4C-3** for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

2429/887

HCM Signalized Intersection Capacity Analysis

31: Webster Street & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	242	216	59	166	581	113	33	534	49	89	815	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	1770	3453		1770	3495		1770	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	263	235	64	180	632	123	36	580	53	97	886	180
RTOR Reduction (vph)	0	0	48	0	15	0	0	6	0	0	0	155
Lane Group Flow (vph)	263	235	16	180	740	0	36	627	0	97	886	25
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	Over
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									
Actuated Green, G (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Effective Green, g (s)	11.7	20.4	20.4	13.7	22.4		4.6	25.4		7.9	28.7	11.7
Actuated g/C Ratio	0.14	0.24	0.24	0.16	0.27		0.06	0.30		0.09	0.34	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	481	865	387	290	927		97	1064		167	1217	222
v/s Ratio Prot	0.08	0.07		c0.10	c0.21		0.02	0.18		c0.05	c0.25	0.02
v/s Ratio Perm			0.01									
v/c Ratio	0.55	0.27	0.04	0.62	0.80		0.37	0.59		0.58	0.73	0.11
Uniform Delay, d1	33.4	25.5	24.0	32.4	28.4		38.0	24.6		36.2	23.9	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.2	0.0	4.1	4.8		2.4	2.4		5.1	3.8	0.2
Delay (s)	34.7	25.7	24.1	36.5	33.2		40.4	27.0		41.2	27.8	31.5
Level of Service	C	C	C	D	C		D	C		D	C	C
Approach Delay (s)		29.7			33.9			27.7			29.5	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.4			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			65.8%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

32: Constitution Way & Atlantic Avenue

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	321	448	315	89	240	170	87	566	39	130	1150	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	0.94		1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3320		1770	3319		3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	487	342	97	261	185	95	615	42	141	1250	129
RTOR Reduction (vph)	0	115	0	0	141	0	0	0	30	0	0	69
Lane Group Flow (vph)	349	714	0	97	305	0	95	615	12	141	1250	60
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Effective Green, g (s)	20.5	26.3		8.5	14.3		6.3	25.2	25.2	8.9	27.8	27.8
Actuated g/C Ratio	0.24	0.31		0.10	0.17		0.07	0.30	0.30	0.10	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	427	1028		177	559		254	1050	469	359	1158	518
v/s Ratio Prot	c0.20	c0.21		0.05	0.09		0.03	0.17		c0.04	c0.35	
v/s Ratio Perm									0.01			0.04
v/c Ratio	0.82	0.69		0.55	0.55		0.37	0.59	0.03	0.39	1.08	0.12
Uniform Delay, d1	30.4	25.8		36.4	32.3		37.4	25.4	21.2	35.5	28.6	20.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.5	2.1		3.4	1.1		0.9	2.4	0.1	0.7	50.7	0.5
Delay (s)	41.9	27.8		39.8	33.4		38.4	27.8	21.3	36.2	79.2	20.4
Level of Service	D	C		D	C		D	C	C	D	E	C
Approach Delay (s)		32.0			34.6			28.8			70.2	
Approach LOS		C			C			C			E	
Intersection Summary												
HCM 2000 Control Delay			46.3			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			84.9			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			78.3%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Existing plus Project (Maximum Commercial Scenario) Conditions
AM and PM Peak Hours

MITIGATED INTERSECTIONS

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	51	151	130	45	87	127
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	51	151	130	45	87	127
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	51	151	175	87	127	
Volume Left (vph)	51	0	130	0	0	
Volume Right (vph)	0	151	0	0	127	
Hadj (s)	0.53	-0.67	0.18	0.03	-0.67	
Departure Headway (s)	6.0	4.8	5.2	5.2	4.5	
Degree Utilization, x	0.08	0.20	0.25	0.13	0.16	
Capacity (veh/h)	566	707	660	654	755	
Control Delay (s)	8.3	7.8	10.0	7.8	7.2	
Approach Delay (s)	7.9		10.0	7.4		
Approach LOS	A		B	A		
Intersection Summary						
Delay			8.4			
Level of Service			A			
Intersection Capacity Utilization			26.2%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

12/11/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	51	151	130	45	87	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Flt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.96	1.00	1.00
Satd. Flow (prot)	1770	1583		1796	1863	1583
Flt Permitted	0.95	1.00		0.76	1.00	1.00
Satd. Flow (perm)	1770	1583		1425	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	151	130	45	87	127
RTOR Reduction (vph)	0	122	0	0	0	61
Lane Group Flow (vph)	51	29	0	175	87	66
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	5.3	5.3		14.2	14.2	14.2
Effective Green, g (s)	5.3	5.3		14.2	14.2	14.2
Actuated g/C Ratio	0.19	0.19		0.52	0.52	0.52
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	341	305		735	961	817
v/s Ratio Prot	c0.03				0.05	
v/s Ratio Perm		0.02		c0.12		0.04
v/c Ratio	0.15	0.10		0.24	0.09	0.08
Uniform Delay, d1	9.2	9.1		3.7	3.4	3.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		0.2	0.0	0.0
Delay (s)	9.4	9.3		3.8	3.4	3.4
Level of Service	A	A		A	A	A
Approach Delay (s)	9.3			3.8	3.4	
Approach LOS	A			A	A	

Intersection Summary

HCM 2000 Control Delay	5.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	27.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	179	217	209	120	101	99
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	179	217	209	120	101	99
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	179	217	329	101	99	
Volume Left (vph)	179	0	209	0	0	
Volume Right (vph)	0	217	0	0	99	
Hadj (s)	0.53	-0.67	0.16	0.03	-0.67	
Departure Headway (s)	6.5	5.3	5.8	6.1	5.4	
Degree Utilization, x	0.32	0.32	0.53	0.17	0.15	
Capacity (veh/h)	527	645	592	555	625	
Control Delay (s)	11.4	9.6	15.2	9.2	8.2	
Approach Delay (s)	10.4		15.2	8.7		
Approach LOS	B		C	A		
Intersection Summary						
Delay			11.7			
Level of Service			B			
Intersection Capacity Utilization			41.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

12/11/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	179	217	209	120	101	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.97	1.00	1.00
Satd. Flow (prot)	1770	1583		1805	1863	1583
Flt Permitted	0.95	1.00		0.76	1.00	1.00
Satd. Flow (perm)	1770	1583		1420	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	179	217	209	120	101	99
RTOR Reduction (vph)	0	174	0	0	0	35
Lane Group Flow (vph)	179	43	0	329	101	64
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	10.5	10.5		34.2	34.2	34.2
Effective Green, g (s)	10.5	10.5		34.2	34.2	34.2
Actuated g/C Ratio	0.20	0.20		0.65	0.65	0.65
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	352	315		921	1209	1027
v/s Ratio Prot	c0.10				0.05	
v/s Ratio Perm		0.03		c0.23		0.04
v/c Ratio	0.51	0.14		0.36	0.08	0.06
Uniform Delay, d1	18.8	17.4		4.2	3.4	3.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.2		1.1	0.1	0.1
Delay (s)	20.0	17.6		5.3	3.6	3.5
Level of Service	B	B		A	A	A
Approach Delay (s)	18.7			5.3	3.5	
Approach LOS	B			A	A	

Intersection Summary

HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	52.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Level Of Service Computation Report

Cumulative plus Project (Maximum Residential Scenario) Conditions
AM and PM Peak Hours

MITIGATED INTERSECTIONS

HCM Signalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	197	0	79	2	0	0	382	579	0	0	325	164	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0		4.0		4.0		4.0	4.0			4.0		
Lane Util. Factor	1.00		1.00		1.00		1.00	0.95			0.95		
Frt	1.00		0.85		1.00		1.00	1.00			0.95		
Flt Protected	0.95		1.00		0.95		0.95	1.00			1.00		
Satd. Flow (prot)	1770		1583		1770		1770	3539			3361		
Flt Permitted	0.76		1.00		0.95		0.47	1.00			1.00		
Satd. Flow (perm)	1409		1583		1770		882	3539			3361		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	197	0	79	2	0	0	382	579	0	0	325	164	
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	0	0	59	0	
Lane Group Flow (vph)	197	0	16	0	2	0	382	579	0	0	430	0	
Turn Type	custom		custom		Perm	NA		Perm		NA		NA	
Protected Phases					8				2				6
Permitted Phases	4		4		8		2						
Actuated Green, G (s)	9.8		9.8		9.8		31.8		31.8		31.8		
Effective Green, g (s)	9.8		9.8		9.8		31.8		31.8		31.8		
Actuated g/C Ratio	0.20		0.20		0.20		0.64		0.64		0.64		
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0		
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	278		312		349		565		2268		2154		
v/s Ratio Prot									0.16		0.13		
v/s Ratio Perm	c0.14		0.01		0.00		c0.43						
v/c Ratio	0.71		0.05		0.01		0.68		0.26		0.20		
Uniform Delay, d1	18.6		16.1		16.0		5.6		3.8		3.7		
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00		
Incremental Delay, d2	8.0		0.1		0.0		3.2		0.1		0.0		
Delay (s)	26.6		16.2		16.0		8.8		3.9		3.7		
Level of Service	C		B		B		A		A		A		
Approach Delay (s)	23.6				16.0				5.9				3.7
Approach LOS	C				B				A				A
Intersection Summary													
HCM 2000 Control Delay			8.1		HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio			0.68										
Actuated Cycle Length (s)			49.6		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			55.6%		ICU Level of Service				B				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	209	0	76	5	0	1	273	679	0	0	736	290	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0		4.0		4.0		4.0	4.0			4.0		
Lane Util. Factor	1.00		1.00		1.00		1.00	0.95			0.95		
Frt	1.00		0.85		0.98		1.00	1.00			0.96		
Flt Protected	0.95		1.00		0.96		0.95	1.00			1.00		
Satd. Flow (prot)	1770		1583		1748		1770	3539			3389		
Flt Permitted	0.75		1.00		0.96		0.24	1.00			1.00		
Satd. Flow (perm)	1404		1583		1748		454	3539			3389		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	209	0	76	5	0	1	273	679	0	0	736	290	
RTOR Reduction (vph)	0	0	60	0	5	0	0	0	0	0	61	0	
Lane Group Flow (vph)	209	0	16	0	1	0	273	679	0	0	965	0	
Turn Type	custom		custom		Perm	NA		Perm		NA		NA	
Protected Phases					8				2				6
Permitted Phases	4		4		8		2						
Actuated Green, G (s)	13.2		13.2		13.2		39.7		39.7		39.7		
Effective Green, g (s)	13.2		13.2		13.2		39.7		39.7		39.7		
Actuated g/C Ratio	0.22		0.22		0.22		0.65		0.65		0.65		
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0		
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	304		343		378		295		2307		2209		
v/s Ratio Prot									0.19		0.28		
v/s Ratio Perm	c0.15		0.01		0.00		c0.60						
v/c Ratio	0.69		0.05		0.00		0.93		0.29		0.44		
Uniform Delay, d1	22.0		18.9		18.7		9.3		4.6		5.2		
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00		
Incremental Delay, d2	6.3		0.1		0.0		33.2		0.1		0.1		
Delay (s)	28.3		18.9		18.7		42.5		4.6		5.3		
Level of Service	C		B		B		D		A		A		
Approach Delay (s)	25.8				18.7				15.5				5.3
Approach LOS	C				B				B				A
Intersection Summary													
HCM 2000 Control Delay			12.2		HCM 2000 Level of Service				B				
HCM 2000 Volume to Capacity ratio			0.86										
Actuated Cycle Length (s)			60.9		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			67.6%		ICU Level of Service				C				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	431	19	20	649	436	75	45	56	390	16	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		0.95			0.95	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.96			0.97	
Flt Protected		0.99			1.00	1.00		0.98			0.97	
Satd. Flow (prot)		3496			3534	1583		1746			1737	
Flt Permitted		0.81			0.93	1.00		0.75			0.71	
Satd. Flow (perm)		2842			3307	1583		1332			1278	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	431	19	20	649	436	75	45	56	390	16	137
RTOR Reduction (vph)	0	5	0	0	0	273	0	26	0	0	19	0
Lane Group Flow (vph)	0	515	0	0	669	164	0	150	0	0	524	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		19.8			19.8	19.8		25.0			25.0	
Effective Green, g (s)		19.8			19.8	19.8		25.0			25.0	
Actuated g/C Ratio		0.38			0.38	0.38		0.47			0.47	
Clearance Time (s)		4.0			4.0	4.0		4.0			4.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		1065			1240	593		630			605	
v/s Ratio Prot												
v/s Ratio Perm		0.18			c0.20	0.10		0.11			c0.41	
v/c Ratio		0.48			0.54	0.28		0.24			0.87	
Uniform Delay, d1		12.6			12.9	11.5		8.2			12.4	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.3			0.5	0.3		0.2			12.4	
Delay (s)		12.9			13.4	11.8		8.4			24.8	
Level of Service		B			B	B		A			C	
Approach Delay (s)		12.9			12.7			8.4			24.8	
Approach LOS		B			B			A			C	
Intersection Summary												
HCM 2000 Control Delay		15.3			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.72										
Actuated Cycle Length (s)		52.8			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		80.5%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	879	57	56	744	623	39	19	27	750	40	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		0.95			0.95	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.96			0.99	
Flt Protected		1.00			1.00	1.00		0.98			0.96	
Satd. Flow (prot)		3496			3527	1583		1743			1761	
Flt Permitted		0.74			0.71	1.00		0.71			0.71	
Satd. Flow (perm)		2606			2503	1583		1257			1303	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	74	879	57	56	744	623	39	19	27	750	40	97
RTOR Reduction (vph)	0	5	0	0	0	374	0	13	0	0	5	0
Lane Group Flow (vph)	0	1005	0	0	800	249	0	72	0	0	882	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		36.0			36.0	36.0		46.0			46.0	
Effective Green, g (s)		36.0			36.0	36.0		46.0			46.0	
Actuated g/C Ratio		0.40			0.40	0.40		0.51			0.51	
Clearance Time (s)		4.0			4.0	4.0		4.0			4.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		1042			1001	633		642			665	
v/s Ratio Prot												
v/s Ratio Perm		c0.39			0.32	0.16		0.06			c0.68	
v/c Ratio		0.96			0.80	0.39		0.11			1.33	
Uniform Delay, d1		26.4			23.8	19.2		11.4			22.0	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		19.7			4.5	0.4		0.1			157.2	
Delay (s)		46.1			28.4	19.6		11.5			179.2	
Level of Service		D			C	B		B			F	
Approach Delay (s)		46.1			24.5			11.5			179.2	
Approach LOS		D			C			B			F	
Intersection Summary												
HCM 2000 Control Delay			70.9				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			1.17									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			116.7%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

Level Of Service Computation Report

Cumulative plus Project (Maximum Commercial Scenario) Conditions
AM and PM Peak Hours

MITIGATED INTERSECTIONS

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	64	184	157	52	77	101
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	64	184	157	52	77	101
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	64	184	209	77	101	
Volume Left (vph)	64	0	157	0	0	
Volume Right (vph)	0	184	0	0	101	
Hadj (s)	0.53	-0.67	0.18	0.03	-0.67	
Departure Headway (s)	6.0	4.8	5.3	5.4	4.7	
Degree Utilization, x	0.11	0.25	0.31	0.12	0.13	
Capacity (veh/h)	564	705	649	629	722	
Control Delay (s)	8.5	8.2	10.7	7.9	7.2	
Approach Delay (s)	8.3		10.7	7.5		
Approach LOS	A		B	A		
Intersection Summary						
Delay			8.9			
Level of Service			A			
Intersection Capacity Utilization			28.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

12/11/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	64	184	157	52	77	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Fr _t	1.00	0.85		1.00	1.00	0.85
Fl _t Protected	0.95	1.00		0.96	1.00	1.00
Satd. Flow (prot)	1770	1583		1795	1863	1583
Fl _t Permitted	0.95	1.00		0.75	1.00	1.00
Satd. Flow (perm)	1770	1583		1405	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	64	184	157	52	77	101
RTOR Reduction (vph)	0	147	0	0	0	50
Lane Group Flow (vph)	64	37	0	209	77	51
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	5.4	5.4		13.5	13.5	13.5
Effective Green, g (s)	5.4	5.4		13.5	13.5	13.5
Actuated g/C Ratio	0.20	0.20		0.50	0.50	0.50
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	355	317		705	934	794
v/s Ratio Prot	c0.04				0.04	
v/s Ratio Perm		0.02		c0.15		0.03
v/c Ratio	0.18	0.12		0.30	0.08	0.06
Uniform Delay, d ₁	8.9	8.8		3.9	3.5	3.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d ₂	0.2	0.2		0.2	0.0	0.0
Delay (s)	9.2	9.0		4.2	3.5	3.5
Level of Service	A	A		A	A	A
Approach Delay (s)	9.0			4.2	3.5	
Approach LOS	A			A	A	

Intersection Summary

HCM 2000 Control Delay	5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	26.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	170	185	234	134	88	86
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	170	185	234	134	88	86
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total (vph)	170	185	368	88	86	
Volume Left (vph)	170	0	234	0	0	
Volume Right (vph)	0	185	0	0	86	
Hadj (s)	0.53	-0.67	0.16	0.03	-0.67	
Departure Headway (s)	6.5	5.3	5.7	6.1	5.3	
Degree Utilization, x	0.31	0.27	0.58	0.15	0.13	
Capacity (veh/h)	524	639	608	560	631	
Control Delay (s)	11.2	9.1	16.3	8.9	7.9	
Approach Delay (s)	10.1		16.3	8.4		
Approach LOS	B		C	A		
Intersection Summary						
Delay			12.3			
Level of Service			B			
Intersection Capacity Utilization			42.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

17: Webster Street & 1st Street / Embarcadero

12/11/2013



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	170	185	234	134	88	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.97	1.00	1.00
Satd. Flow (prot)	1770	1583		1805	1863	1583
Flt Permitted	0.95	1.00		0.76	1.00	1.00
Satd. Flow (perm)	1770	1583		1424	1863	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	170	185	234	134	88	86
RTOR Reduction (vph)	0	150	0	0	0	29
Lane Group Flow (vph)	170	35	0	368	88	57
Turn Type	NA	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	10.4	10.4		35.9	35.9	35.9
Effective Green, g (s)	10.4	10.4		35.9	35.9	35.9
Actuated g/C Ratio	0.19	0.19		0.66	0.66	0.66
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	339	303		941	1231	1046
v/s Ratio Prot	c0.10				0.05	
v/s Ratio Perm		0.02		c0.26		0.04
v/c Ratio	0.50	0.12		0.39	0.07	0.05
Uniform Delay, d1	19.6	18.2		4.2	3.3	3.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.2		1.2	0.1	0.1
Delay (s)	20.8	18.3		5.4	3.4	3.3
Level of Service	C	B		A	A	A
Approach Delay (s)	19.5			5.4	3.4	
Approach LOS	B			A	A	

Intersection Summary

HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	54.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis 25: Oak Street & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	0	75	2	0	0	396	579	0	0	325	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00		1.00		1.00		1.00	0.95			0.95	
Frt	1.00		0.85		1.00		1.00	1.00			0.94	
Flt Protected	0.95		1.00		0.95		0.95	1.00			1.00	
Satd. Flow (prot)	1770		1583		1770		1770	3539			3336	
Flt Permitted	0.76		1.00		0.95		0.46	1.00			1.00	
Satd. Flow (perm)	1409		1583		1770		851	3539			3336	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	139	0	75	2	0	0	396	579	0	0	325	201
RTOR Reduction (vph)	0	0	62	0	0	0	0	0	0	0	66	0
Lane Group Flow (vph)	139	0	13	0	2	0	396	579	0	0	460	0
Turn Type	custom		custom	Perm	NA		Perm		NA		NA	
Protected Phases					8		2				6	
Permitted Phases	4		4		8		2					
Actuated Green, G (s)	8.6		8.6		8.6		33.9		33.9		33.9	
Effective Green, g (s)	8.6		8.6		8.6		33.9		33.9		33.9	
Actuated g/C Ratio	0.17		0.17		0.17		0.67		0.67		0.67	
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0	
Lane Grp Cap (vph)	239		269		301		571		2375		2239	
v/s Ratio Prot							0.16				0.14	
v/s Ratio Perm	c0.10		0.01		0.00		c0.47					
v/c Ratio	0.58		0.05		0.01		0.69		0.24		0.21	
Uniform Delay, d1	19.3		17.5		17.4		5.1		3.3		3.2	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00	
Incremental Delay, d2	3.6		0.1		0.0		3.6		0.1		0.0	
Delay (s)	22.9		17.6		17.4		8.7		3.3		3.2	
Level of Service	C		B		B		A		A		A	
Approach Delay (s)	21.0				17.4		5.5				3.2	
Approach LOS	C				B		A				A	
Intersection Summary												
HCM 2000 Control Delay			6.8		HCM 2000 Level of Service				A			
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			50.5		Sum of lost time (s)				8.0			
Intersection Capacity Utilization			54.6%		ICU Level of Service				A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

25: Oak Street & 1st Street / Embarcadero

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	230	0	83	5	0	1	263	679	0	0	736	251	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0		4.0		4.0		4.0	4.0			4.0		
Lane Util. Factor	1.00		1.00		1.00		1.00	0.95			0.95		
Frt	1.00		0.85		0.98		1.00	1.00			0.96		
Flt Protected	0.95		1.00		0.96		0.95	1.00			1.00		
Satd. Flow (prot)	1770		1583		1748		1770	3539			3404		
Flt Permitted	0.75		1.00		0.96		0.25	1.00			1.00		
Satd. Flow (perm)	1404		1583		1748		474	3539			3404		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	230	0	83	5	0	1	263	679	0	0	736	251	
RTOR Reduction (vph)	0	0	64	0	5	0	0	0	0	0	50	0	
Lane Group Flow (vph)	230	0	19	0	1	0	263	679	0	0	937	0	
Turn Type	custom		custom		Perm	NA		Perm		NA		NA	
Protected Phases					8				2				6
Permitted Phases	4		4		8		2						
Actuated Green, G (s)	13.7		13.7		13.7		38.8		38.8		38.8		
Effective Green, g (s)	13.7		13.7		13.7		38.8		38.8		38.8		
Actuated g/C Ratio	0.23		0.23		0.23		0.64		0.64		0.64		
Clearance Time (s)	4.0		4.0		4.0		4.0		4.0		4.0		
Vehicle Extension (s)	3.0		3.0		3.0		3.0		3.0		3.0		
Lane Grp Cap (vph)	317		358		395		303		2269		2183		
v/s Ratio Prot									0.19		0.28		
v/s Ratio Perm	c0.16		0.01		0.00		c0.56						
v/c Ratio	0.73		0.05		0.00		0.87		0.30		0.43		
Uniform Delay, d1	21.7		18.3		18.1		8.8		4.8		5.4		
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00		
Incremental Delay, d2	8.0		0.1		0.0		22.1		0.1		0.1		
Delay (s)	29.7		18.4		18.1		30.9		4.9		5.5		
Level of Service	C		B		B		C		A		A		
Approach Delay (s)	26.7				18.1				12.1				5.5
Approach LOS	C				B				B				A
Intersection Summary													
HCM 2000 Control Delay			11.3		HCM 2000 Level of Service				B				
HCM 2000 Volume to Capacity ratio			0.83										
Actuated Cycle Length (s)			60.5		Sum of lost time (s)				8.0				
Intersection Capacity Utilization			67.1%		ICU Level of Service				C				
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	426	19	20	664	436	75	45	56	390	16	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		0.95			0.95	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.96			0.97	
Flt Protected		0.99			1.00	1.00		0.98			0.97	
Satd. Flow (prot)		3496			3534	1583		1746			1737	
Flt Permitted		0.76			0.93	1.00		0.73			0.70	
Satd. Flow (perm)		2672			3306	1583		1297			1264	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	70	426	19	20	664	436	75	45	56	390	16	137
RTOR Reduction (vph)	0	3	0	0	0	284	0	22	0	0	16	0
Lane Group Flow (vph)	0	512	0	0	684	152	0	154	0	0	527	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		22.0			22.0	22.0		33.2			33.2	
Effective Green, g (s)		22.0			22.0	22.0		33.2			33.2	
Actuated g/C Ratio		0.35			0.35	0.35		0.53			0.53	
Clearance Time (s)		4.0			4.0	4.0		4.0			4.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		930			1150	551		681			664	
v/s Ratio Prot												
v/s Ratio Perm		0.19			0.21	0.10		0.12			0.42	
v/c Ratio		0.55			0.59	0.28		0.23			0.79	
Uniform Delay, d1		16.6			16.9	14.9		8.1			12.2	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.7			0.8	0.3		0.2			6.5	
Delay (s)		17.3			17.8	15.1		8.2			18.7	
Level of Service		B			B	B		A			B	
Approach Delay (s)		17.3			16.7			8.2			18.7	
Approach LOS		B			B			A			B	
Intersection Summary												
HCM 2000 Control Delay		16.7			HCM 2000 Level of Service			B				
HCM 2000 Volume to Capacity ratio		0.71										
Actuated Cycle Length (s)		63.2			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		80.8%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

30: 5th Avenue & 1st Street / Embarcadero

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	885	57	56	734	623	39	19	27	750	40	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0			4.0	
Lane Util. Factor		0.95			0.95	1.00		1.00			1.00	
Frt		0.99			1.00	0.85		0.96			0.99	
Flt Protected		1.00			1.00	1.00		0.98			0.96	
Satd. Flow (prot)		3497			3527	1583		1743			1761	
Flt Permitted		0.75			0.70	1.00		0.71			0.71	
Satd. Flow (perm)		2622			2492	1583		1257			1303	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	74	885	57	56	734	623	39	19	27	750	40	97
RTOR Reduction (vph)	0	5	0	0	0	374	0	13	0	0	5	0
Lane Group Flow (vph)	0	1011	0	0	790	249	0	72	0	0	882	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		36.0			36.0	36.0		46.0			46.0	
Effective Green, g (s)		36.0			36.0	36.0		46.0			46.0	
Actuated g/C Ratio		0.40			0.40	0.40		0.51			0.51	
Clearance Time (s)		4.0			4.0	4.0		4.0			4.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)		1048			996	633		642			665	
v/s Ratio Prot												
v/s Ratio Perm		c0.39			0.32	0.16		0.06			c0.68	
v/c Ratio		0.96			0.79	0.39		0.11			1.33	
Uniform Delay, d1		26.4			23.7	19.2		11.4			22.0	
Progression Factor		1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2		19.7			4.4	0.4		0.1			157.2	
Delay (s)		46.1			28.1	19.6		11.5			179.2	
Level of Service		D			C	B		B			F	
Approach Delay (s)		46.1			24.4			11.5			179.2	
Approach LOS		D			C			B			F	
Intersection Summary												
HCM 2000 Control Delay			70.9				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			1.17									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			116.6%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

Memorandum

Date	July 12, 2013	Page	1 of 10
To	Catherine Payne, City of Oakland Jamie Parks, City of Oakland Iris Starr, City of Oakland		
From	Bill Burton, PE Ryan Niblock		
Subject	Jack London Square Redevelopment Project Update Traffic Volumes and Trip Generation Calculations		

This memorandum has been prepared to compare data provided in the 2004 Jack London Square Redevelopment Project Final Environmental Impact Report (FEIR) with current information and methodologies intended for use to analyze transportation and circulation impacts of the 2013 Project. This memo was requested by the City of Oakland, and its purpose is to detail establish baseline assumptions that will be used in completing the Jack London Square Redevelopment Project Update transportation analyses. Specifically, intersection traffic volumes and trip generation characteristics are examined.

Intersection Turning Movement Volume Comparison

As part of the FEIR traffic analysis, intersection turning movement counts were collected at 32 study intersections during the weekday AM and PM peak hours, between the years 1999 and 2002. These intersections were:

1. Market Street / 3rd Street;
2. Market Street / 5th Street;
3. Market Street / 6th Street;
4. Market Street / 7th Street;
5. Castro Street / 11th Street;
6. Castro Street / 12th Street;
7. Broadway / Embarcadero;
8. Broadway / 2nd Street;
9. Broadway / 3rd Street;
10. Broadway / 5th Street;
11. Broadway / 6th Street;
12. Broadway / 11th Street;
13. Broadway / 12th Street;
14. Broadway / 14th Street;
15. Franklin Street / 2nd Street;
16. Franklin Street / 3rd Street;
17. Webster Street / Embarcadero;
18. Harrison Street / 7th Street;
19. Jackson Street / 5th Street;
20. Jackson Street / 6th Street;
21. Jackson Street / 7th Street;
22. Madison Street / 5th Street;
23. Madison Street / 6th Street;
24. Madison Street / 7th Street;
25. Oak Street / Embarcadero;
26. Oak Street / 3rd Street;
27. Oak Street / 5th Street;
28. Oak Street / 6th Street;
29. Oak Street / 7th Street;
30. 5th Avenue / Embarcadero;
31. Webster Street / Atlantic Avenue (Alameda); and
32. Constitution Way / Atlantic Avenue (Alameda).

Intersection turning movement volumes were collected at half of these intersections on Tuesday, January 15, 2013, and the remainder were collected on Thursday, February 14, 2013. These 2013 total intersection volumes are compared with total intersection traffic volumes as evaluated in the FEIR in **Table 1**. As shown, since the time of FEIR data collection (between the years 1999 and 2002), 29 of the 32 intersections experienced decreases in traffic volumes during both peak hours. The Oak Street / 3rd

Street intersection experienced an increase in traffic volume during the weekday AM peak hour, and a decrease during the weekday PM peak hour. The Market Street / 5th Street and the Franklin Street / 3rd Street intersections experienced an increase in traffic volumes during the weekday PM peak hour, and a decrease during the weekday AM peak hour.

Table 1: Existing Conditions Traffic Volume Comparison

Intersection		Intersection Volume Total				Volume Difference			
		FEIR		2013 Count		AM Peak Hour		PM Peak Hour	
		AM	PM	AM	PM	Total	%	Total	%
1	Market St / 3 rd St	863	771	555	665	-308	-36%	-106	-14%
2	Market St / 5 th St	849	981	838	1,011	-11	-1%	30	3%
3	Market St / 6 th St	1,467	1,260	838	691	-629	-43%	-569	-45%
4	Market St / 7 th St	2,046	1,984	1,437	1,745	-609	-30%	-239	-12%
5	Castro St / 11 th St	2,473	2,314	1,479	1,865	-994	-40%	-449	-19%
6	Castro St / 12 th St	1,092	2,858	909	2,341	-183	-17%	-517	-18%
7	Broadway / Embarcadero	502	742	249	330	-253	-50%	-412	-56%
8	Broadway / 2 nd St	527	828	331	666	-196	-37%	-162	-20%
9	Broadway / 3 rd St	772	1,103	503	908	-269	-35%	-195	-18%
10	Broadway / 5 th St	2,417	3,182	1,901	2,715	-516	-21%	-467	-15%
11	Broadway / 6 th St	2,058	2,334	1,732	1,988	-326	-16%	-346	-15%
12	Broadway / 11 th St	1,887	2,681	1,668	2,083	-219	-12%	-598	-22%
13	Broadway / 12 th St	1,820	2,730	1,316	1,990	-504	-28%	-740	-27%
14	Broadway / 14 th St	2,064	2,677	1,644	2,279	-420	-20%	-398	-15%
15	Franklin St / 2 nd St	243	290	133	282	-110	-45%	-8	-3%
16	Franklin St / 3 rd St	166	374	73	519	-93	-56%	145	39%
17	Webster St / Embarcadero	403	486	206	179	-197	-49%	-307	-63%
18	Harrison St / 7 th St	3,435	3,884	1,954	1,844	-1,481	-43%	-2,040	-53%
19	Jackson St / 5 th St	1,886	2,259	1,290	1,585	-596	-32%	-674	-30%
20	Jackson St / 6 th St	3,260	3,402	2,204	1,615	-1,056	-32%	-1,787	-53%
21	Jackson St / 7 th St	2,713	3,167	2,162	1,894	-551	-20%	-1,273	-40%
22	Madison St / 5 th St	1,464	1,804	1,048	1,371	-416	-28%	-433	-24%
23	Madison St / 6 th St	1,209	1,563	984	1,215	-225	-19%	-348	-22%
24	Madison St / 7 th St	1,667	2,256	1,192	1,929	-475	-28%	-327	-14%
25	Oak St / Embarcadero	768	858	672	621	-96	-13%	-237	-28%
26	Oak St / 3 rd St	665	854	666	595	1	0%	-259	-30%
27	Oak St / 5 th St	1,717	2,405	1,252	1,645	-465	-27%	-760	-32%
28	Oak St / 6 th St	1,660	1,519	1,150	1,191	-510	-31%	-328	-22%
29	Oak St / 7 th St	1,776	2,386	1,310	1,858	-466	-26%	-528	-22%
30	5th Ave / Embarcadero	1,279	1,425	1,027	1,227	-252	-20%	-198	-14%
31	Webster St / Atlantic Ave	3,197	2,949	2,466	2,218	-731	-23%	-731	-25%
32	Constitution Way / Atlantic Ave	2,061	2,664	1,961	2,578	-100	-5%	-86	-3%

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM 2013.

Notes: Values in **bold** represent volume increases as compared with the FEIR.

Project Description Comparison

Differences in Project land use makeup between the FEIR Project and the 2013 Project as currently proposed are summarized in **Table 2**. As in the FEIR, the transportation study will analyze maximum-build scenarios (that is, a combination of land uses that creates a worst-case impact) in order to allow flexibility among possible site-specific variants. As shown, the Maximum Residential Scenario would substantially reduce the amount of office and retail space provided, eliminate the theater space, and provide 666 residential units. The Maximum Commercial Scenario would replace 55,000 square feet of retail space with 55,000 square feet of office space, as compared with the FEIR Project Description.

Table 2: Project Description Summary

Land Use	FEIR Description		Max Residential Scenario			Max Commercial Scenario		
			Total		Difference	Total		Difference
Office	386,300	SF	217,300	SF	-169,000 SF	441,300	SF	+55,000 SF
Retail	323,400	SF	194,400	SF	-129,000 SF	268,400	SF	-55,000 SF
Theater	1,700	Se	----	----	-1,700 Se	1,700	Se	0 Se
Residential	----	----	666	DU	+666 DU	----	----	0 DU
Hotel	250	Rm	250	Rm	0 Rm	250	Rm	0 Rm
Conference/Banquet	15,000	SF	15,000	SF	0 SF	15,000	SF	0 SF

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM, 2013.

Notes: SF = Square Feet, DU = Dwelling Units, Se = Seats, Rm = Rooms.

Trip Generation Comparison

FEIR Trip Generation

Vehicle trip generation totals as analyzed in the FEIR are summarized in **Table 3**. FEIR trip generation estimates were made using a combination of the Institute of Transportation Engineers (ITE) *Trip Generation* (Sixth Edition, 1997), the San Diego Association of Governments (SANDAG) *Traffic Generators* (2002), as well as the findings of the Jack London District Transportation Improvement Study with respect to internal trips and modal split characteristics. As shown in **Table 3**, the Project as analyzed in the FEIR was calculated to generate 20,424 daily vehicle trips, including 1,485 trips during the weekday AM peak hour and 2,550 trips during the weekday PM peak hour.

Table 3: FEIR Vehicle Trip Generation Summary

Land Use ⁽¹⁾	FEIR Project Description		Vehicle Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	386,300	SF	3,129	700	96	796	126	613	739
Retail	323,400	SF	13,974	264	169	433	584	773	1,357
Theater	1,700	Seats	1,206	9	6	15	108	96	204
Residential	----	----	0	0	0	0	0	0	0
Hotel	250	Rooms	1,646	68	44	112	65	57	122
Conference/Banquet	15,000	SF	468	79	50	129	68	60	128
Total	----	----	20,424	1,120	365	1,485	951	1,599	2,550

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004.

Currently Proposed Project Trip Generation

Trip generation estimates for the 2013 Project analysis are developed from rates given in the ITE *Trip Generation* (Ninth Edition, 2012). Both a weighted average rate and a regression equation with which to calculate trip generation for each land use are provided. Generally, in cases where ITE has surveyed at least 20 sites for a particular land use, where the proposed project is within the range of sizes of the surveyed sites, and where the coefficient of determination¹ is greater or equal to 0.75, the regression equation is used to determine that land use's trip generation. In cases where ITE studied fewer than 20 sites, the coefficient of determination is less than 0.75, or the project provides a level of land use below a reasonable quantity, the weighted average is used to determine the land use's trip generation. Using the appropriate trip generation equation or rate, total vehicle trip generation estimates are calculated. The trip generation rates and regression equations used in this analysis are presented in **Table 4**. Trip generation estimates based on ITE values alone are summarized in **Tables 5 and 6**.

¹ The coefficient of determination (R^2) is an estimate of the accuracy of the fit of the regression equation.

Table 4: ITE Trip Generation Rates and Regression Equations

Land Use	ITE Land Use Code	Trip Generation Rate or Regression Equation		
		Daily	AM Peak Hour	PM Peak Hour
Office	General Office (710)	$\ln(T) = 0.76 \cdot \ln(X) + 3.68$	$\ln(T) = 0.8 \cdot \ln(X) + 1.57$	$T = 1.12 \cdot (X) + 78.45$
Retail	Shopping Center (820)	$\ln(T) = 0.65 \cdot \ln(X) + 5.83$	$\ln(T) = 0.61 \cdot \ln(X) + 2.24$	$\ln(T) = 0.67 \cdot \ln(X) + 3.31$
Theater	Multiplex Movie Theater (445)	0.8 Trips / Seat	0.1 Trips / Seat	0.08 Trips / Seat
Residential	Apartment (220)*	$T = 6.06 \cdot (X) + 123.56$	$T = 0.49 \cdot (X) + 3.73$	$T = 0.55 \cdot (X) + 17.65$
Hotel	Hotel (310)	$T = 8.95 \cdot (X) - 373.16$	0.53 Trips / Room	0.6 Trips / Room
Conference / Banquet	Quality Restaurant (931)	89.95 Trips / KSF	0.81 Trips / KSF	7.49 Trips / KSF

Source: ITE *Trip Generation* (Ninth Edition, 2012).

Notes: Where regression equations are presented, "T" stands for "Trips," and "X" stands for land use size. The office and retail land uses are evaluated per 1,000 square feet, the residential land use is evaluated per dwelling unit, and the hotel land use is evaluated per room.

* At this time, it has not been determined whether Project residential space will be apartments or condominiums / townhouses. As such, the Apartment land use is used, as it is a larger trip generator, allowing for a conservative analysis of residential trip generation.

Table 5: ITE Vehicle Trip Generation Summary – Max Residential Scenario

Land Use	Current Project Description		Vehicle Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	217,300	SF	2,368	313	43	356	55	267	322
Retail	194,400	SF	10,461	145	89	234	449	486	935
Theater	----	----	0	0	0	0	0	0	0
Residential	666	DU	4,160	66	264	330	250	134	384
Hotel	250	Rm	1,864	78	55	133	76	74	150
Conference/Banquet	15,000	SF	1,349	6	6	12	75	37	112
Total	----	----	20,202	608	457	1,065	906	998	1,903

Source: AECOM, 2013.

Table 6: ITE Vehicle Trip Generation Summary – Max Commercial Scenario

Land Use	Current Project Description		Vehicle Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	441,300	SF	4,057	553	75	628	97	476	573
Retail	268,400	SF	12,902	177	108	285	557	604	1,161
Theater	1,700	Seats	1,360	11	6	17	49	87	136
Residential	----	----	0	0	0	0	0	0	0
Hotel	250	Rm	1,864	78	55	133	76	74	150
Conference/Banquet	15,000	SF	1,349	6	6	12	75	37	112
Total	----	----	21,532	825	250	1,075	855	1,278	2,132

Source: AECOM, 2013.

Research has shown that *ITE Trip Generation* over-estimates motor vehicle trips when applied to dense, urban environments such as the Jack London Square neighborhood in Oakland. In fact, *ITE Trip Generation* acknowledges that most of the underlying data for the Handbook were collected in suburban settings with few, if any, alternatives to driving. Moreover, mixed-use developments that combine origins and destinations in close proximity may encourage “internal” trips made entirely within a given development and placing no burden on the external transportation network. For these reasons, the City of Oakland requires that mode split and internal capture are accounted for as part of the trip generation process using factors derived from observed travel data for Alameda County from the Metropolitan Transportation Commission’s (MTC) 2000 Bay Area Travel Survey (BATS). Based on the Project’s location between 0.5 and 1.0 miles of the nearest BART station, appropriate modal split adjustment factors per the 2000 BATS data are applied to the ITE Trip Generation totals. The results of this calculation are provided in **Table 7**.

Table 7: Trip Generation Summary, by Mode

Mode of Travel	Modal Split Adjustment Factors	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Maximum Residential Scenario								
Automobile	0.786	15,880	479	358	837	710	785	1,495
Transit	0.118	2,388	72	54	126	107	118	225
Bike	0.056	1,122	34	25	59	50	56	105
Walk/Other	0.201	4,489	135	101	237	201	222	423
Total Trips	1.161	23,879	720	538	1,258	1,068	1,181	2,248
Maximum Commercial Scenario								
Automobile	0.786	16,926	648	197	845	672	1,003	1,675
Transit	0.118	2,545	97	30	127	101	151	252
Bike	0.056	1,196	46	14	60	47	71	118
Walk/Other	0.201	4,785	183	56	239	190	284	474
Total Trips	1.161	25,602	974	297	1,271	1,010	1,509	2,519

Source: Metropolitan Transportation Commission, 2000 Bay Area Travel Survey, Table K9, Total Trips; AECOM, 2013.

A comparison of vehicle trip generation estimates for the Project as analyzed in the FEIR and the Project as currently proposed is provided in **Table 8**.

Table 8: Vehicle Trip Generation Comparison

Trip Generation Comparison	Vehicle Trip Generation						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
FEIR Vehicle Trip Generation Total	20,424	1,120	365	1,485	951	1,599	2,550
Max Residential Scenario Vehicle Trips	15,880	479	358	837	710	785	1,495
Difference	-4,544	-641	-7	-648	-241	-814	-1,055
FEIR Vehicle Trip Generation Total	20,424	1,120	365	1,485	951	1,599	2,550
Max Commercial Scenario Vehicle Trips	16,926	648	197	845	672	1,003	1,675
Difference	-3,498	-472	-168	-640	-279	-596	-875

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM 2013.

As shown, due to changes in the land use totals as well as changes in methodology, both the Maximum Residential Project Scenario and the Maximum Commercial Project Scenario would generate fewer vehicle trips over the course of the day as compared with the Project as analyzed in the FEIR.

Currently Proposed Project Trip Generation, Accounting for Active Uses

Since the completion of the FEIR, some portions of the Project have been constructed and are active uses. Trips associated with these uses are accounted for in existing turning movement counts collected in 2013. Thus, trip generation calculations for the proposed Maximum Residential Project Scenario and the Maximum Commercial Project Scenario must subtract out square footage associated with any currently active uses. A summary of the proposed Project, less active components, is provided in **Table 9**.

Table 9: Project Description Summary, Less Active Components

Land Use	Project as Proposed in FEIR		Max Residential Scenario		Max Commercial Scenario	
	Total	Active Components ⁽¹⁾	Total	Less Active Components ⁽²⁾	Total	Less Active Components ⁽²⁾
Office	386,300 SF	111,000 SF	217,300 SF	106,300 SF	441,300 SF	330,300 SF
Retail	323,400 SF	4,000 SF	194,400 SF	190,400 SF	268,400 SF	264,400 SF
Theater	1,700 Se	-- --	-- --	-- --	1,700 Se	1,700 Se
Residential	-- --	-- --	666 DU	666 DU	-- --	-- --
Hotel	250 Rm	-- --	250 Rm	250 Rm	250 Rm	250 Rm
Conference	15,000 SF	-- --	15,000 SF	15,000 SF	15,000 SF	15,000 SF

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM 2013.

Notes: SF = Square Feet, DU = Dwelling Units, Rm = Rooms.

⁽¹⁾ "Active Components" are portions of the Project as identified in the FEIR that are built and occupied.

⁽²⁾ Represents the Project alternative as proposed, minus the portions of the Project that were built and occupied.

Trip generation estimates for the Project, accounting for active uses, follows the same methodology laid out in the previous section of this memorandum. First, trip generation estimates using ITE rates are calculated. The results are summarized in **Tables 10** and **11**.

Table 10: ITE Vehicle Trip Generation – Max Residential Scenario, Less Active Components

Land Use	Current Project Description		Vehicle Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	106,300	SF	1,375	177	24	201	34	164	198
Retail	190,400	SF	10,321	143	88	231	443	479	922
Theater	----	----	0	0	0	0	0	0	0
Residential	666	DU	4,160	66	264	330	250	134	384
Hotel	250	Rm	1,864	78	55	133	76	74	150
Conference/Banquet	15,000	SF	1,349	6	6	12	75	37	112
Total	----	----	19,069	470	437	907	879	888	1,766

Source: AECOM, 2013.

Table 11: ITE Vehicle Trip Generation – Max Commercial Scenario, Less Active Components

Land Use	Current Project Description		Vehicle Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Office	330,300	SF	3,255	438	60	498	76	372	448
Retail	264,400	SF	12,776	175	107	282	552	597	1,149
Theater	1,700	Seats	1,360	11	6	17	49	87	136
Residential	----	----	0	0	0	0	0	0	0
Hotel	250	Rm	1,864	78	55	133	76	74	150
Conference/Banquet	15,000	SF	1,349	6	6	12	75	37	112
Total	----	----	20,604	708	234	942	828	1,167	1,995

Source: AECOM, 2013.

Next, the 2000 BATS modal split adjustment factors are applied to the ITE Trip Generation totals. The results of this calculation are provided in **Table 12**. A comparison of vehicle trip generation estimates for the Project as analyzed in the FEIR and the Project as currently proposed (less active components) is provided in **Table 13**. It should be noted that the trip totals presented within **Table 13** correspond to the total number of vehicles to be layered over existing traffic counts in developing Existing plus Project Conditions.

Table 12: Trip Generation Summary, by Mode, Less Active Components

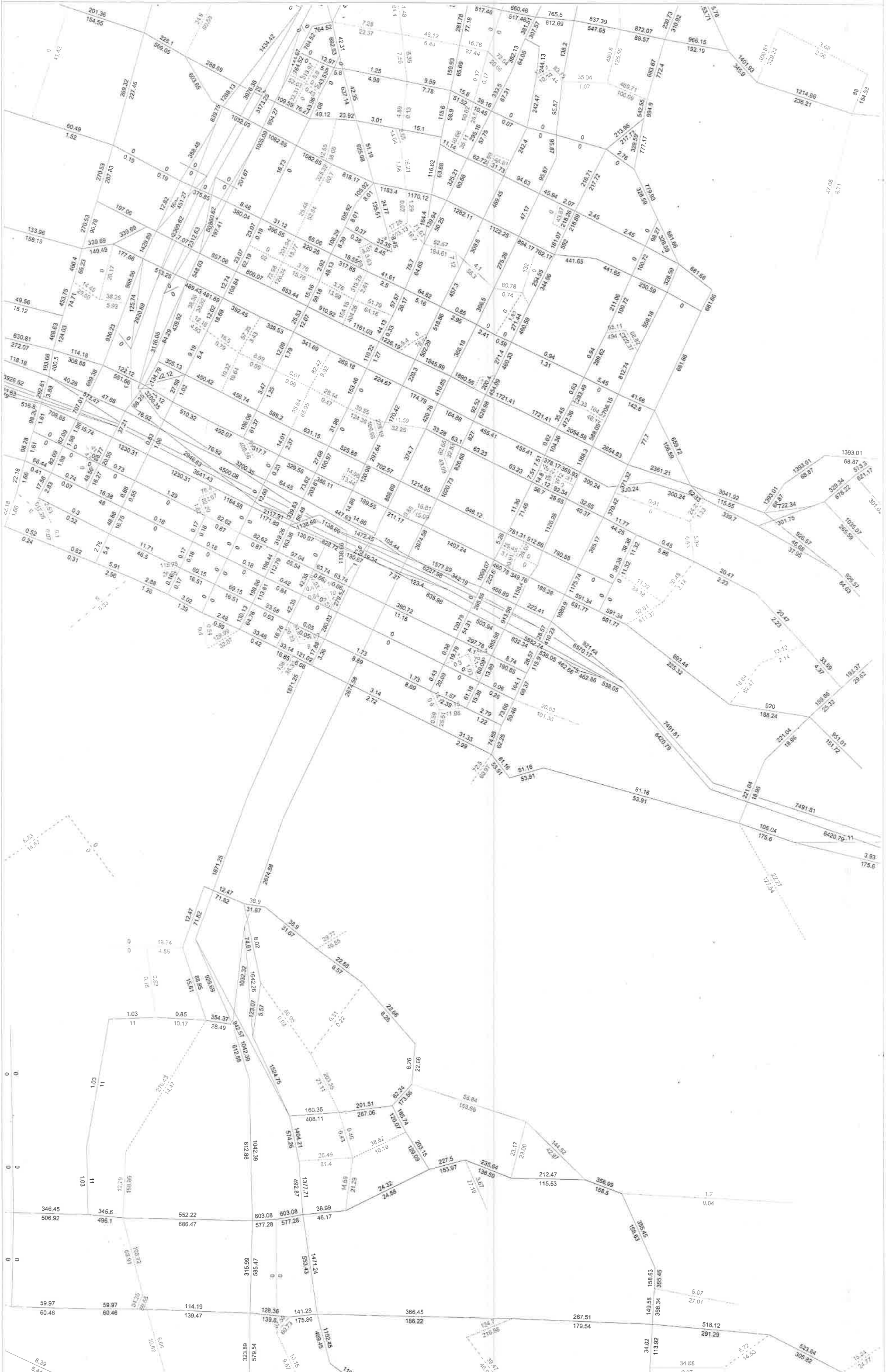
Mode of Travel	Modal Split Adjustment Factors	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Maximum Residential Scenario								
Automobile	0.786	14,989	370	343	713	689	699	1,388
Transit	0.118	2,254	56	52	108	104	105	209
Bike	0.056	1,059	26	24	50	49	49	98
Walk/Other	0.201	4,238	105	97	202	195	198	393
Total Trips	1.161	22,540	557	516	1,073	1,037	1,051	2,088
Maximum Commercial Scenario								
Automobile	0.786	16,197	556	184	740	650	918	1,568
Transit	0.118	2,436	84	28	112	98	138	236
Bike	0.056	1,145	39	13	52	46	65	111
Walk/Other	0.201	4,579	157	52	209	184	259	443
Total Trips	1.161	24,357	836	277	1,113	978	1,380	2,358

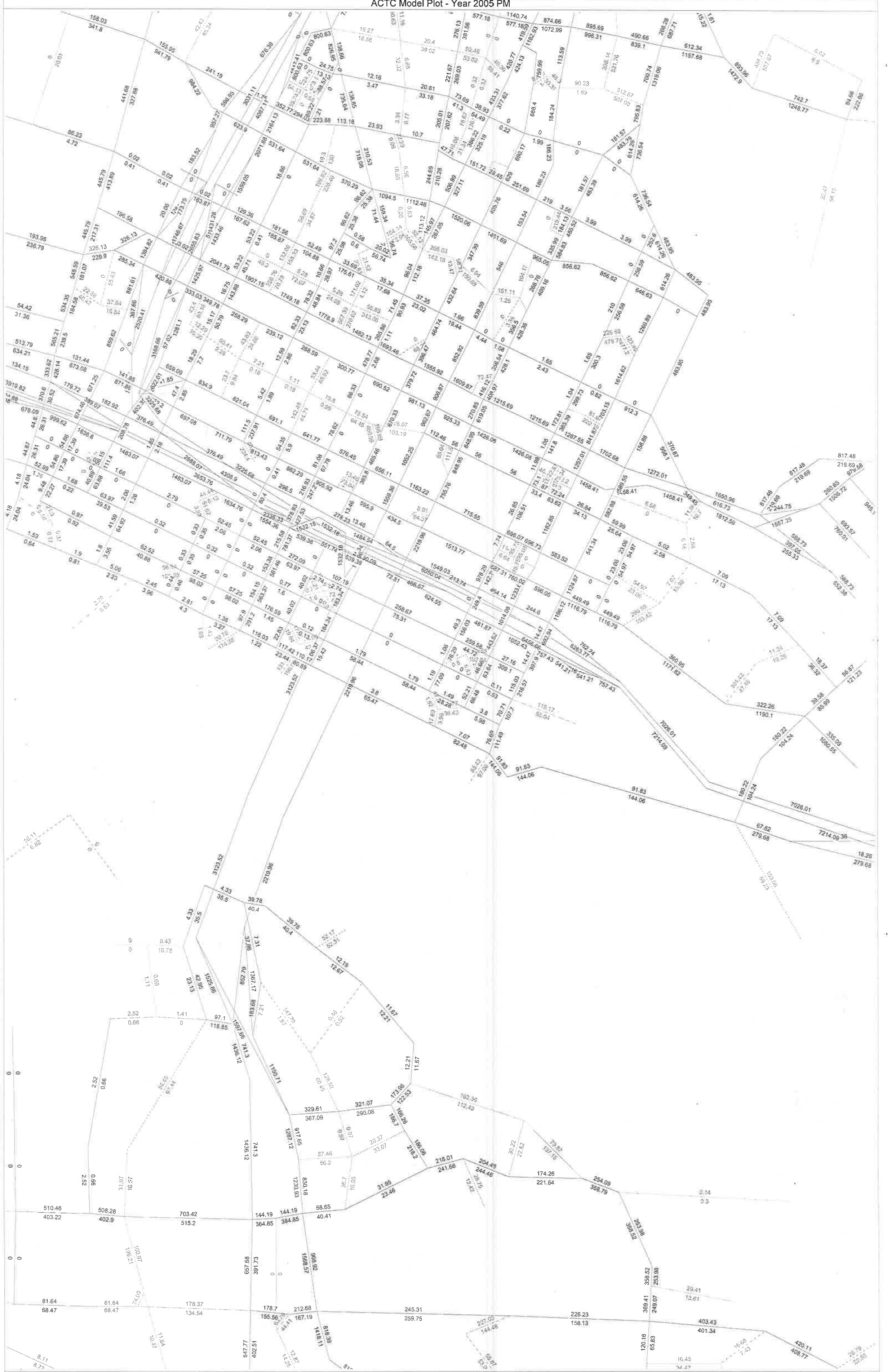
Source: AECOM, 2013.

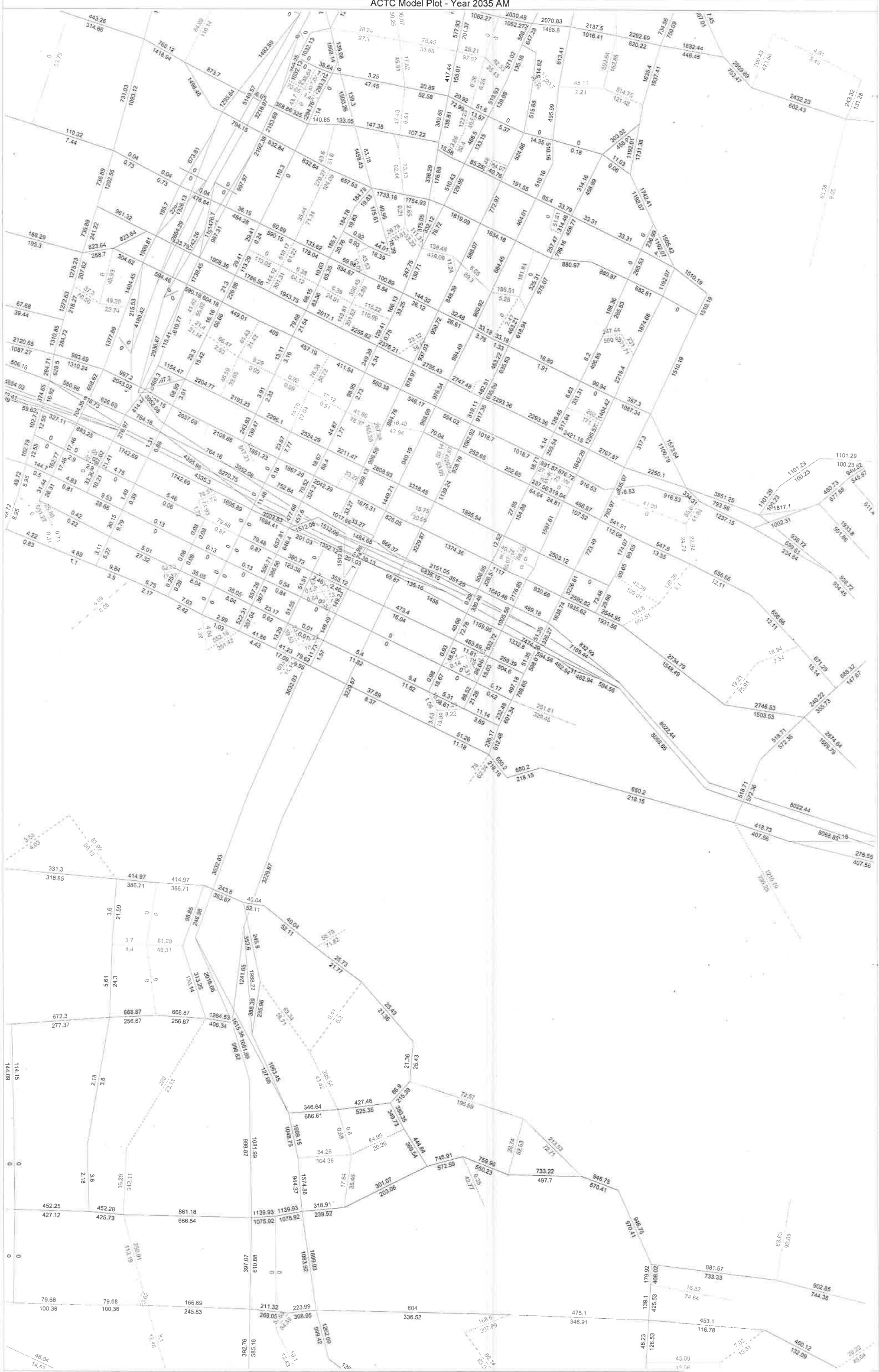
Table 13: Vehicle Trip Generation Comparison

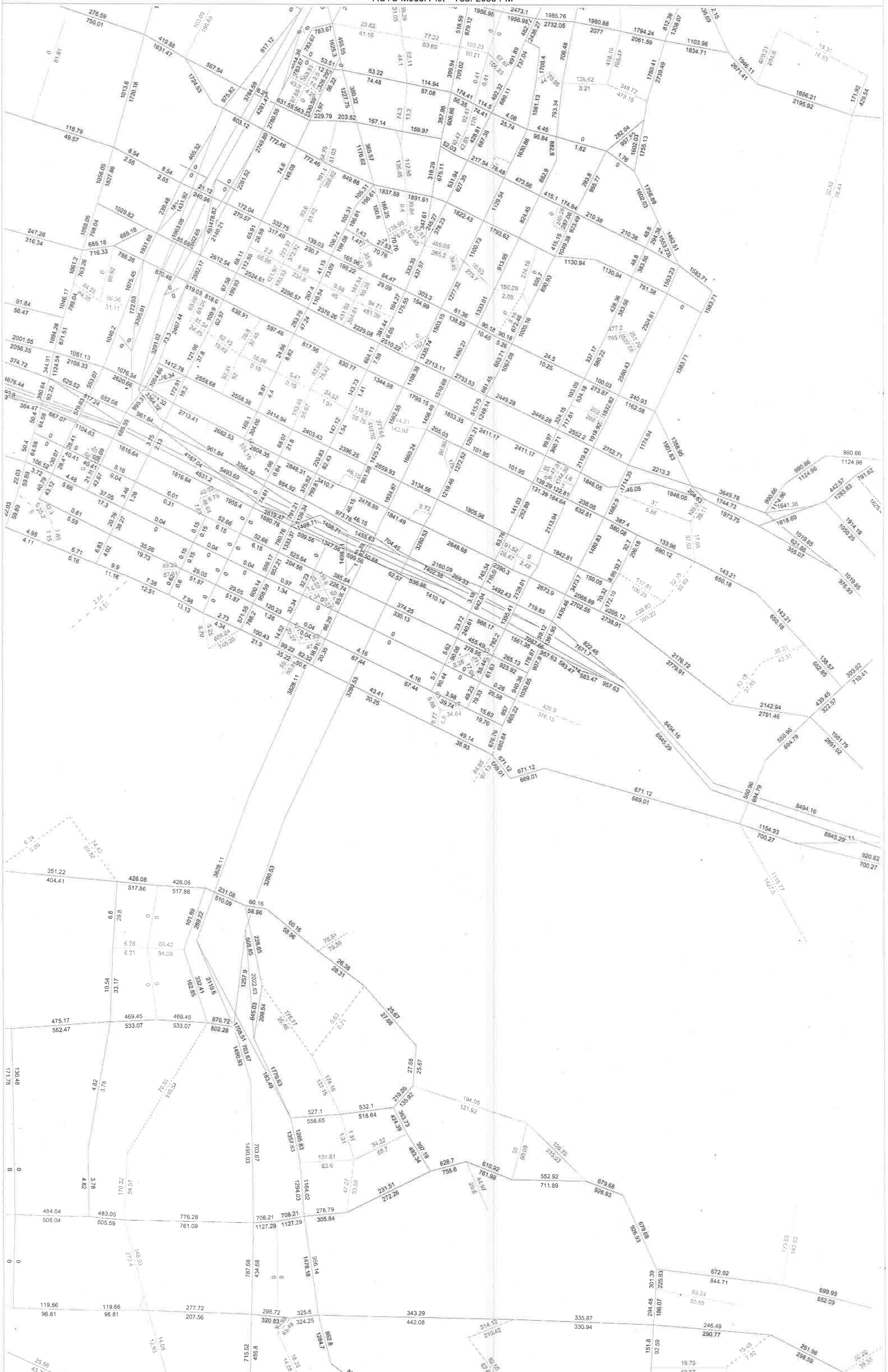
Trip Generation Comparison	Vehicle Trip Generation						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
FEIR Vehicle Trip Generation Total	20,424	1,120	365	1,485	951	1,599	2,550
Max Residential Scenario Vehicle Trips	14,989	370	343	713	689	699	1,388
Difference	-5,435	-750	-22	-772	-262	-900	-1,162
FEIR Vehicle Trip Generation Total	20,424	1,120	365	1,485	951	1,599	2,550
Max Commercial Scenario Vehicle Trips	16,197	556	184	740	650	918	1,568
Difference	-4,227	-564	-181	-745	-301	-681	-982

Source: Jack London Square Redevelopment Project Final Environmental Impact Report, 2004; AECOM 2013.









City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Market St / 3rd St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 10

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2781586	8/21/06	14:19	6	South	Sideswipe	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Improper Turning	0	0
2917411	11/22/06	11:50	46	West	Rear-End	Parked Motor Vehicle	East	Backing	West	Parked	Unsafe Starting or Backing	0	0
3246225	6/29/07	13:59	0	In Int.	Sideswipe	Other Motor Vehicle	Not Stated	Making Right Turn	South	Making Right Turn	Improper Turning	0	0
3259307	7/10/07	10:50	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Making U Turn	Auto R/W Violation	0	0
3600245	2/28/08	6:55	0	In Int.	Sideswipe	Other Motor Vehicle	West	Passing Other Vehicle	West	Making Left Turn	Improper Passing	0	0
3890131	9/20/08	19:30	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4123122	3/2/09	15:05	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Auto R/W Violation	1	0
4313288	6/24/09	8:30	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Auto R/W Violation	1	0
4920192	11/1/10	8:15	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	West	Making Right Turn	Improper Passing	0	0
5240226	6/28/11	14:00	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Auto R/W Violation	2	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Market St / 3rd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 10

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 10

Settings Used For Query

Parameter

Setting

Street Name

MARKET ST

Cross Street

3RD ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Market St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 28

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2916370	11/18/06	10:55	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
2916382	11/18/06	11:00	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
2908610	11/27/06	9:20	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
2946051	12/17/06	12:25	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3029781	1/31/07	16:20	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3126469	3/29/07	22:04	4	Not Stated	Not Stated	Not Stated	South	Proceeding Straight			Improper Turning	0	0
3171894	4/20/07	15:30	0	In Int.	Broadside	Other Motor Vehicle	West	Traveling Wrong Way	North	Proceeding Straight	Auto R/W Violation	0	0
3179790	5/12/07	14:29	0	In Int.	Broadside	Motor Vehicle on Other	South	Proceeding Straight	East	Stopped in Road	Traffic Signals and Signs	0	0
3184236	5/15/07	13:36	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3373814	9/17/07	15:15	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	2	0
3570786	1/18/08	18:14	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Other Improper Driving	0	0
3998700	11/14/08	17:58	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4474835	10/22/09	10:06	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4511079	11/22/09	2:54	30	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Driving Under Influence	0	0
4527447	12/8/09	11:55	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Making Left Turn	Unsafe Lane Change	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Market St / 5th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 28

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4666613	4/11/10	16:12	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
4735940	6/7/10	14:36	0	In Int.	Sideswipe	Other Motor Vehicle	East	Passing Other Vehicle	East	Making Right Turn	Improper Passing	1	0
4845189	8/6/10	19:59	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
4874530	8/30/10	13:00	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
4906749	9/20/10	13:04	0	In Int.	Broadside	Not Stated	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
4899239	10/5/10	8:45	20	West	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Improper Turning	0	0
4949556	10/19/10	10:50	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
4938387	10/21/10	20:51	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
5015353	12/28/10	18:46	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
5205388	5/5/11	17:21	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
5235576	7/1/11	15:22	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
5214917	7/19/11	18:27	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
5305060	8/26/11	2:52	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	3	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Market St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 28

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 28

Settings Used For Query

Parameter

Setting

Street Name

MARKET ST

Cross Street

5TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Market St / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 14

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3056524	2/18/07	9:20	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	North	Proceeding Straight	Traffic Signals and Signs	0	0
3283199	7/13/07	17:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3514379	12/21/07	8:30	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3546350	12/22/07	22:30	0	In Int.	Hit Object	Fixed Object	South	Proceeding Straight			Hazardous Parking	0	0
3597284	1/25/08	13:59	20	West	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3545155	1/29/08	14:27	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unknown	0	0
3685569	4/22/08	12:00	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Left Turn	West	Making Left Turn	Improper Turning	0	0
3743057	5/11/08	15:00	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4208493	4/9/09	16:58	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4243147	4/27/09	8:23	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
4375663	8/21/09	13:32	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Left Turn	West	Proceeding Straight	Improper Turning	0	0
4571096	2/23/10	19:36	40	North	Hit Object	Fixed Object	West	Other	South	Parked	Other Improper Driving	1	0
4991474	12/21/10	17:19	50	South	Other	Bicycle	South	Making Right Turn	South	Proceeding Straight	Improper Turning	1	0
5240218	6/24/11	17:36	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Market St / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 14

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 14

Settings Used For Query

Parameter

Setting

Street Name

MARKET ST

Cross Street

6TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Market St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 27

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
9000286	8/25/06	13:55	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
2788597	9/5/06	19:27	0	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	0	0
2901436	11/14/06	18:09	0	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	2	0
2914077	11/25/06	23:00	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Auto R/W Violation	0	0
3004412	12/9/06	18:54	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0
3011296	1/24/07	8:30	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unsafe Lane Change	0	0
3075863	3/1/07	19:20	0	In Int.	Head-On	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	2	0
3196844	5/30/07	15:50	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3256525	7/6/07	18:50	0	In Int.	Head-On	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
3325392	8/8/07	16:59	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3388683	9/13/07	6:45	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	2	0
3657063	3/20/08	21:49	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	2	0
3743094	5/16/08	20:19	40	North	Sideswipe	Other Motor Vehicle	South	Entering Traffic	South	Proceeding Straight	Unsafe Starting or Backing	0	0
3995908	10/26/08	14:31	0	In Int.	Head-On	Other Motor Vehicle	South	Proceeding Straight	North	Proceeding Straight	Auto R/W Violation	0	0
4148917	3/4/09	19:26	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Unknown	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Market St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 27

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4197149	3/10/09	8:19	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
4165528	3/11/09	20:11	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4257876	5/11/09	13:53	20	North	Sideswipe	Parked Motor Vehicle	South	Other	South	Parked	Improper Turning	0	0
4312297	5/31/09	17:15	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
4296790	6/19/09	9:50	0	In Int.	Other	Other Motor Vehicle	South	Entering Traffic	South	Proceeding Straight	Improper Turning	0	0
4317138	6/25/09	11:36	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
4542980	12/2/09	1:06	0	In Int.	Other	Non-Collision	South	Proceeding Straight			Improper Turning	0	0
4789816	6/14/10	9:30	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	0	0
4919031	8/17/10	9:05	0	In Int.	Sideswipe	Other Motor Vehicle	West	Changing Lanes	West	Proceeding Straight	Improper Turning	0	0
4886331	9/10/10	19:13	40	North	Sideswipe	Parked Motor Vehicle	South	Proceeding Straight	South	Parked	Other Hazardous Movement	0	0
4875082	9/13/10	8:22	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Improper Turning	0	0
4947775	10/27/10	11:15	12	South	Sideswipe	Other Motor Vehicle	North	Passing Other Vehicle	North	Making Right Turn	Improper Passing	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 3

Location: Market St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 27

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 27

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	MARKET ST
Cross Street	7TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Castro St / 11th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 29

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2749557	8/1/06	18:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	2	0
2759241	8/8/06	10:54	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
2942464	12/7/06	18:05	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unsafe Speed	0	0
2942469	12/12/06	11:40	0	In Int.	Broadside	Motor Vehicle on Other	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3145344	4/11/07	16:59	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3197965	5/31/07	13:00	6	East	Other	Bicycle	East	Proceeding Straight	East	Proceeding Straight	Improper Turning	1	0
3250395	7/2/07	9:44	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3315271	8/14/07	20:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3624870	2/16/08	8:00	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	North	Making Left Turn	Traffic Signals and Signs	0	0
3610683	2/17/08	17:42	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Making Left Turn	East	Not Stated	Ped R/W Violation	1	0
3620669	2/19/08	16:10	15	North	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
3881852	8/17/08	16:45	50	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Other	0	0
3904921	8/28/08	7:00	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Other	1	0
3945876	10/9/08	6:30	0	In Int.	Other	Non-Collision	North	Proceeding Straight			Unsafe Starting or Backing	0	0
4148913	3/4/09	1:31	0	In Int.	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Castro St / 11th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 29

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4209111	3/30/09	0:14	0	In Int.	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4208557	4/21/09	15:30	20	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Slowing/Stopping	Unsafe Speed	0	0
4271175	5/20/09	6:35	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4317198	6/30/09	11:52	4	South	Rear-End	Other Motor Vehicle	North	Stopped in Road	North	Stopped in Road	Unsafe Starting or Backing	0	0
4543084	12/18/09	10:46	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4633033	2/10/10	16:00	10	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	1	0
4611748	2/26/10	17:33	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	2	0
4687571	3/9/10		0	In Int.	Hit Object	Fixed Object	East	Passing Other Vehicle			Unsafe Speed	0	0
4760137	4/2/10	20:09	15	South	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Driving Under Influence	1	0
4689140	4/21/10	6:55	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
4695275	4/24/10	0:54	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4772417	5/23/10	2:05	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4972291	11/15/10	20:58	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
5006522	12/19/10	1:50	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	3	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

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Page 3

Location: Castro St / 11th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 29

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 29

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	CASTRO ST
Cross Street	11TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Castro St / 12th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 38

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2798191	9/18/06	9:30	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	North	Making Right Turn	Improper Turning	0	0
2971258	12/16/06	15:00	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Unsafe Lane Change	0	0
3010361	1/14/07	20:50	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3011300	1/19/07	23:00	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3092866	3/8/07	11:10	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Auto R/W Violation	0	0
3255844	7/3/07	16:40	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
3283201	7/20/07	10:59	27	West	Broadside	Other Motor Vehicle	West	Making Right Turn	North	Proceeding Straight	Auto R/W Violation	0	0
3283205	7/20/07	14:00	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
3325130	7/28/07	17:10	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
3612458	3/1/08	8:29	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Making Right Turn	Traffic Signals and Signs	1	0
3675724	3/25/08	11:40	0	In Int.	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Stopped in Road	Unsafe Speed	0	0
3739616	5/7/08	10:32	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Improper Turning	0	0
3866218	8/2/08	9:40	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4015557	12/12/08	9:01	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4038335	1/20/09	16:52	0	In Int.	Sideswipe	Other Motor Vehicle	North	Changing Lanes	North	Proceeding Straight	Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Castro St / 12th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 38

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4135496	1/29/09	12:15	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4243951	5/8/09	17:11	0	In Int.	Broadside	Other Motor Vehicle	North	Other Unsafe Turning	West	Proceeding Straight	Traffic Signals and Signs	0	0
4269292	6/3/09	17:15	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Unknown	0	0
4296342	6/8/09	19:50	15	North	Head-On	Fixed Object	West	Proceeding Straight			Improper Turning	0	0
4332038	7/17/09	13:40	0	In Int.	Sideswipe	Other Motor Vehicle	North	Changing Lanes	North	Proceeding Straight	Improper Turning	0	0
4331632	7/23/09	16:50	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
4359878	7/28/09	22:06	0	In Int.	Broadside	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0
4336157	7/29/09	10:45	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0
4370774	8/20/09	17:58	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	5	0
4457455	10/21/09	15:35	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
4489427	10/30/09	16:46	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4454340	10/31/09	9:53	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unsafe Lane Change	0	0
4485795	11/20/09	9:43	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
4527451	12/2/09	12:25	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4666581	4/1/10	9:36	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 3

Location: Castro St / 12th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 38

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4768924	4/27/10	19:00	0	In Int.	Sideswipe	Not Stated	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
4974516	11/21/10	15:11	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4989577	12/3/10	15:55	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Making Right Turn	Traffic Signals and Signs	0	0
5015433	12/29/10	23:15	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
5226275	5/16/11	23:15	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
5226396	6/1/11	3:35	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Left Turn	North	Proceeding Straight	Improper Turning	0	0
5288295	7/15/11	22:35	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
5272734	8/22/11	15:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 4

Location: Castro St / 12th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 38

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 38

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	CASTRO ST
Cross Street	12TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Broadway / Embarcadero West

Date Range Reported: 7/31/2006 - 8/31/2011

Total Number of Collisions: 8

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2841017	10/9/06	12:50	3	West	Vehicle - Pedestrian	Pedestrian	East	Proceeding Straight	North	Proceeding Straight	Ped R/W Violation	1	0
2922010	12/1/06	19:33	0	In Int.	Broadside	Train	East	Making Left Turn			Traffic Signals and Signs	0	0
3042886	2/19/07	9:42	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
3063625	2/27/07	18:10	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3638697	3/4/08	14:35	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Auto R/W Violation	0	0
3765889	4/21/08	19:01	20	South	Sideswipe	Other Motor Vehicle	South	Entering Traffic	South	Proceeding Straight	Other Improper Driving	0	0
3844577	8/15/08	13:32	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Stopped in Road	Improper Turning	0	0
4130904	2/15/09	12:15	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Auto R/W Violation	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Broadway / Embarcadero West

Date Range Reported: 7/31/2006 - 8/31/2011

Total Number of Collisions: 8

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 8

Settings Used For Query

ParameterSetting

Street Name

BROADWAY

Cross Street

EMBARCADERO WEST

Starting Date

7/31/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
 Page 1

Location: Broadway / 2nd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 7

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3442839	10/22/07	19:20	25	West	Other	Parked Motor Vehicle	West	Backing	East	Parked	Unsafe Starting or Backing	0	0
3582839	1/25/08	14:02	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Auto R/W Violation	0	0
3625946	2/13/08	14:24	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Auto R/W Violation	0	0
3720249	4/25/08	19:55	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Making Left Turn	Unknown	0	0
3743088	5/15/08	19:05	0	In Int.	Other	Non-Collision	West	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
4778298	5/13/10	10:18	0	In Int.	Other	Bicycle	West	Proceeding Straight	North	Proceeding Straight	Auto R/W Violation	2	0
5298070	8/21/11	12:00	0	In Int.	Broadside	Bicycle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0

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Traffic Engineering Department

Traffic Collision History Report

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Page 2

Location: Broadway / 2nd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 7

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 7

Settings Used For Query

Parameter

Setting

Street Name

BROADWAY

Cross Street

2ND ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Broadway / 3rd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 10

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
9000282	8/22/06	12:10	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
2879920	11/4/06	13:50	30	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Speed	2	0
2986300	12/23/06	0:18	0	In Int.	Head-On	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Auto R/W Violation	0	0
3184191	5/11/07	20:59	50	East	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unsafe Speed	0	0
3505540	12/8/07	13:40	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
4001697	11/15/08	19:19	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4042427	1/4/09	1:55	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Auto R/W Violation	0	0
4398105	9/17/09	23:19	15	East	Rear-End	Parked Motor Vehicle	West	Backing	Not Stated	Parked	Unsafe Starting or Backing	0	0
4778294	5/19/10	17:36	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4778274	5/23/10	22:51	50	North	Rear-End	Parked Motor Vehicle	North	Backing	South	Parked	Unsafe Starting or Backing	0	0

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Traffic Engineering Department

Traffic Collision History Report

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Page 2

Location: Broadway / 3rd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 10

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 10

Settings Used For Query

Parameter

Setting

Street Name

BROADWAY

Cross Street

3RD ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Broadway / 5th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 79

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2759201	8/7/06	10:45	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unknown	0	0
2762379	8/8/06	22:05	0	In Int.	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
2798198	9/4/06	1:45	0	In Int.	Broadside	Parked Motor Vehicle	North	Proceeding Straight	Not Stated	Parked	Driving Under Influence	0	0
2797980	9/18/06	13:45	0	In Int.	Broadside	Other Motor Vehicle	Not Stated	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
2864391	10/24/06	13:20	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	2	0
2917423	11/29/06	10:15	32	South	Sideswipe	Parked Motor Vehicle	South	Proceeding Straight	South	Parked	Improper Turning	0	0
2942547	12/7/06	17:40	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Traffic Signals and Signs	0	0
2968618	12/30/06	2:15	0	In Int.	Head-On	Not Stated	North	Ran Off Road	Not Stated	Other	Driving Under Influence	0	0
3002111	1/19/07	15:35	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	East	Making Right Turn	Unknown	0	0
3059087	2/17/07	19:46	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Unknown	0	0
3077764	3/11/07	23:20	25	East	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
3152807	4/21/07	23:37	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	South	Making Left Turn	Improper Turning	0	0
3145339	4/23/07	14:30	50	North	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Improper Turning	0	0
3236439	6/6/07	21:36	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	North	Making Right Turn	Unknown	0	0
3227474	6/14/07	20:45	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Unknown	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Broadway / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 79

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3230664	6/18/07	8:02	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
3240778	6/21/07	12:45	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	0	0
3283180	7/20/07	17:23	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	North	Making Right Turn	Auto R/W Violation	0	0
3302877	7/23/07	1:56	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
3284025	7/23/07	20:45	20	North	Other	Other Motor Vehicle	South	Backing	South	Stopped in Road	Unsafe Starting or Backing	0	0
3297075	7/27/07	16:20	0	In Int.	Sideswipe	Other Motor Vehicle	South	Changing Lanes	South	Making Left Turn	Unsafe Lane Change	0	0
3359565	8/30/07	21:25	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Traffic Signals and Signs	0	0
3368904	9/12/07	6:30	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	North	Proceeding Straight	Other	0	0
3403043	10/2/07	11:20	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	East	Making Left Turn	Improper Turning	1	0
3403095	10/2/07	11:45	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	South	Making Right Turn	Unknown	0	0
3403099	10/4/07	17:20	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3376452	10/8/07	13:50	10	North	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Stopped in Road	Improper Turning	0	0
3479151	11/10/07	3:15	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Making Left Turn	Traffic Signals and Signs	0	0
3472272	11/16/07	11:55	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3492570	12/4/07	6:35	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Slowing/Stopping	Unsafe Speed	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Broadway / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 79

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3511789	12/8/07	17:10	15	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Slowing/Stopping	Unsafe Speed	2	0
3518541	12/15/07	2:03	40	North	Sideswipe	Not Stated	South	Changing Lanes	South	Proceeding Straight	Improper Turning	0	0
3511812	12/16/07	20:30	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	North	Making Left Turn	Improper Turning	0	0
3574260	1/2/08	22:00	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Other Hazardous Movement	0	0
3617315	1/6/08	1:10	25	North	Other	Other Motor Vehicle	South	Backing	South	Stopped in Road	Driving Under Influence	0	0
3640352	2/15/08	18:25	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Making Left Turn	Driving Under Influence	1	0
3632387	2/26/08	18:45	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	0	0
3656492	3/12/08	10:24	39	South	Vehicle - Pedestrian	Pedestrian	East	Proceeding Straight	North	Proceeding Straight	Pedestrian Violation	1	0
3732558	3/30/08	10:59	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
3694772	4/12/08	7:44	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unsafe Lane Change	0	0
3721847	4/19/08	19:30	0	In Int.	Broadside	Other Motor Vehicle	North	Making Right Turn	North	Stopped in Road	Improper Turning	0	0
3724392	5/2/08	9:35	20	South	Other	Other Motor Vehicle	South	Backing	Not Stated	Stopped in Road	Unsafe Starting or Backing	0	0
3735865	5/3/08	22:30	0	In Int.	Sideswipe	Other Motor Vehicle	North	Changing Lanes	North	Proceeding Straight	Improper Turning	0	0
3768356	6/3/08	14:24	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Improper Turning	0	0
3840287	8/25/08	14:41	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 4

Location: Broadway / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 79

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3931387	9/17/08	1:05	0	In Int.	Sideswipe	Other Motor Vehicle	East	Merging	East	Proceeding Straight	Improper Turning	0	0
3950043	11/2/08	8:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4003982	12/21/08	0:30	20	West	Rear-End	Motor Vehicle on Other	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
4013980	12/31/08	19:35	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Making Left Turn	Traffic Signals and Signs	0	0
4083021	1/16/09	22:57	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	0	0
4133038	2/2/09	16:06	0	In Int.	Overtaken	Not Stated	East	Merging	East	Proceeding Straight	Improper Turning	0	0
4105535	2/5/09	15:07	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	0	0
4105531	2/5/09	18:35	0	In Int.	Sideswipe	Other Motor Vehicle	North	Changing Lanes	North	Proceeding Straight	Unsafe Lane Change	0	0
4105555	2/13/09	3:08	0	In Int.	Sideswipe	Motor Vehicle on Other	South	Proceeding Straight	East	Making Left Turn	Improper Turning	0	0
4216378	3/6/09	12:50	0	In Int.	Rear-End	Other Motor Vehicle	North	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
4234692	3/14/09	14:45	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Making Left Turn	Improper Turning	0	0
4209169	4/2/09	10:30	60	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
4190643	4/4/09	21:11	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Making Left Turn	Improper Turning	0	0
4246478	4/9/09	16:18	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Making Right Turn	South	Not Stated	Ped R/W Violation	1	0
4271943	6/2/09	13:35	40	East	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 5

Location: Broadway / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 79

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4266741	6/9/09	13:23	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Making Left Turn	Improper Turning	0	0
4266737	6/9/09	15:24	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Making Left Turn	Improper Turning	0	0
4345335	8/8/09	1:06	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	South	Making Left Turn	Improper Turning	0	0
4386912	9/2/09	10:33	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Improper Turning	0	0
4398104	9/17/09	12:00	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unknown	0	0
4420808	9/25/09	23:09	0	In Int.	Rear-End	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	1	0
4444934	11/3/09	10:01	0	In Int.	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Making Right Turn	Improper Passing	0	0
4547439	11/7/09	18:32	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Unknown	1	0
4477053	11/12/09	18:32	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
4508775	12/7/09	20:01	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Improper Turning	0	0
4529987	12/30/09	11:25	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	North	Proceeding Straight	Traffic Signals and Signs	0	0
4577881	1/23/10	20:35	0	In Int.	Sideswipe	Other Motor Vehicle	South	Other Unsafe Turning	South	Making Left Turn	Improper Turning	0	0
4693012	3/22/10	11:50	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Making Left Turn	Traffic Signals and Signs	0	0
4731873	5/26/10	3:40	0	In Int.	Broadside	Motor Vehicle on Other	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4868545	8/16/10	19:25	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	East	Making Left Turn	Improper Turning	1	0

City of Oakland**Traffic Engineering Department****Traffic Collision History Report**

7/30/2013

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Location: Broadway / 5th St**Date Range Reported: 8/1/2006 - 8/31/2011****Total Number of Collisions: 79**

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4917332	9/18/10	13:14	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Making Left Turn	Improper Turning	0	0
4908106	9/24/10	10:39	9	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
5258167	2/27/11	0:24	30	East	Hit Object	Fixed Object	East	Ran Off Road			Driving Under Influence	0	0
5264455	6/29/11	2:17	15	South	Hit Object	Fixed Object	South	Proceeding Straight			Driving Under Influence	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 7

Location: Broadway / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 79

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 79

Settings Used For Query

Parameter

Setting

Street Name

BROADWAY

Cross Street

5TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Broadway / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 30

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2878186	10/31/06	15:00	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
2903735	11/12/06	4:30	18	East	Head-On	Fixed Object	West	Making Right Turn			Unsafe Speed	0	0
2926180	11/23/06	12:19	9	North	Broadside	Motor Vehicle on Other	South	Making Right Turn	South	Proceeding Straight	Improper Turning	0	0
2942461	12/11/06	9:27	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
2984063	12/31/06	14:49	0	In Int.	Vehicle - Pedestrian	Pedestrian	West	Making Right Turn	South	Not Stated	Ped R/W Violation	1	0
2985761	1/12/07	8:26	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3046186	2/4/07	2:25	0	In Int.	Rear-End	Other Motor Vehicle	West	Stopped in Road	West	Making U Turn	Driving Under Influence	0	0
3042884	2/6/07	7:10	36	South	Hit Object	Fixed Object	South	Making Left Turn			Improper Turning	0	0
3063677	2/23/07	19:09	40	North	Rear-End	Other Motor Vehicle	North	Proceeding Straight	South	Stopped in Road	Unsafe Speed	2	0
3093336	3/11/07	16:30	0	In Int.	Sideswipe	Other Motor Vehicle	South	Changing Lanes	South	Proceeding Straight	Unsafe Lane Change	0	0
3126174	4/9/07	18:17	60	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Speed	0	0
3211383	6/7/07	7:00	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	0	0
3472374	11/16/07		30	West	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Parked	Improper Turning	0	0
3476319	11/24/07	23:47	1	North	Sideswipe	Other Motor Vehicle	South	Making Right Turn	South	Proceeding Straight	Improper Turning	1	0
3575749	2/22/08	14:30	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Left Turn	West	Making Left Turn	Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Broadway / 6th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 30

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3638636	3/4/08	14:40	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Unsafe Lane Change	0	0
3765343	5/31/08	9:50	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making U Turn	North	Making U Turn	Unsafe Speed	0	0
3838648	8/26/08	18:50	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Improper Turning	0	0
3898625	9/7/08	16:30	20	North	Rear-End	Other Motor Vehicle	North	Merging	North	Stopped in Road	Unsafe Speed	0	0
4165602	2/28/09	16:24	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0
4283267	5/20/09	18:52	40	South	Sideswipe	Other Motor Vehicle	South	Changing Lanes	South	Proceeding Straight	Unsafe Lane Change	1	0
4312706	6/5/09	16:13	42	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
4296394	6/26/09	23:01	20	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	2	0
4662465	3/1/10	8:56	50	North	Sideswipe	Other Motor Vehicle	South	Changing Lanes	South	Proceeding Straight	Unsafe Lane Change	0	0
4624510	3/2/10	12:28	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4855033	7/24/10	22:46	50	West	Head-On	Parked Motor Vehicle	West	Proceeding Straight	West	Parked	Driving Under Influence	0	0
4933178	10/16/10	15:29	10	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Speed	1	0
4968494	11/17/10	21:02	0	In Int.	Broadside	Other Motor Vehicle	South	Making Right Turn	South	Proceeding Straight	Improper Turning	0	0
5219558	6/8/11	11:34	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
5277382	8/26/11	11:36	100	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Following Too Closely	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Broadway / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 30

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 30

Settings Used For Query

Parameter

Setting

Street Name

BROADWAY

Cross Street

6TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Broadway / 11th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 17

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2775954	8/16/06	7:30	38	East	Vehicle - Pedestrian	Pedestrian	South	Proceeding Straight	East	Making Left Turn	Pedestrian Violation	1	0
3587687	1/31/08	10:15	0	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3541717	2/1/08	11:08	19	South	Broadside	Other Motor Vehicle	North	Passing Other Vehicle	North	Proceeding Straight	Improper Passing	0	0
3698709	4/20/08	20:03	60	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	1	0
3755449	6/3/08	15:04	100	West	Rear-End	Parked Motor Vehicle	East	Backing	East	Parked	Unsafe Starting or Backing	0	0
3859807	7/30/08	18:59	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Improper Turning	0	0
4105749	2/3/09	6:03	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
4117768	2/12/09	11:35	0	In Int.	Other	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Wrong Side of Road	1	0
4366947	8/2/09	14:18	17	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Other Improper Driving	0	0
4404730	9/16/09	7:39	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Other	North	Proceeding Straight	Pedestrian Violation	0	0
4421188	9/29/09	15:45	50	South	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Slowing/Stopping	Other Improper Driving	0	0
4710303	5/5/10	12:51	35	West	Sideswipe	Other Motor Vehicle	East	Entering Traffic	East	Proceeding Straight	Improper Turning	0	0
4809285	6/8/10	11:50	0	In Int.	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
4782856	6/11/10	2:50	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
4936668	10/13/10	14:30	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	East	Proceeding Straight	Traffic Signals and Signs	1	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Broadway / 11th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 17

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
5270025	7/6/11	18:31	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Entering Traffic	South	Proceeding Straight	Ped R/W Violation	1	0
5254888	7/14/11	13:30	40	South	Vehicle - Pedestrian	Pedestrian	South	Stopped in Road	South	Proceeding Straight	Unsafe Starting or Backing	1	0

Total Number of Collisions: 17

Settings Used For Query

Parameter

Setting

Street Name	BROADWAY
Cross Street	11TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Broadway / 12th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 18

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2834277	8/12/06	16:00	10	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	1	0
2985895	12/13/06	18:00	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3039380	2/14/07	2:03	0	In Int.	Broadside	Motor Vehicle on Other	West	Proceeding Straight	South	Proceeding Straight	Auto R/W Violation	3	0
3049374	2/20/07	16:42	50	East	Sideswipe	Other Motor Vehicle	East	Backing	West	Stopped in Road	Unsafe Starting or Backing	0	0
3472338	11/10/07	11:35	40	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	3	0
3543416	12/29/07	7:37	0	In Int.	Vehicle - Pedestrian	Pedestrian	West	Making Left Turn	East	Not Stated	Ped R/W Violation	1	0
3624824	2/19/08	13:05	25	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Starting or Backing	1	0
3640368	2/21/08	19:15	0	In Int.	Rear-End	Other Motor Vehicle	South	Slowing/Stopping	South	Stopped in Road	Unsafe Speed	0	0
3660579	4/8/08	10:37	15	North	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Improper Turning	0	0
3744891	5/24/08	21:35	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4039969	1/15/09	12:18	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	South	Proceeding Straight	Unsafe Lane Change	0	0
4282832	6/10/09	11:10	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Other	North	Proceeding Straight	Pedestrian Violation	1	0
4340617	6/29/09	11:30	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Improper Turning	0	0
4317193	6/30/09	9:30	0	In Int.	Sideswipe	Bicycle	North	Making Left Turn	South	Proceeding Straight	Improper Turning	0	0
4458122	10/16/09	22:28	5	North	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Unsafe Speed	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Broadway / 12th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 18

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4698303	4/30/10	21:13	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4839583	7/7/10	12:02	0	In Int.	Vehicle - Pedestrian	Pedestrian	West	Making Left Turn	West	Not Stated	Ped R/W Violation	1	0
5266796	6/28/11	16:00	5	South	Vehicle - Pedestrian	Pedestrian	East	Other	North	Proceeding Straight	Pedestrian Violation	1	0

Total Number of Collisions: 18

Settings Used For Query

Parameter

Setting

Street Name

BROADWAY

Cross Street

12TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Broadway / 14th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 32

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2834260	10/9/06	14:53	0	In Int.	Broadside	Other Motor Vehicle	West	Changing Lanes	West	Proceeding Straight	Improper Turning	0	0
2881277	11/7/06	15:45	45	West	Rear-End	Other Motor Vehicle	West	Changing Lanes	West	Stopped in Road	Unknown	0	0
2891445	11/11/06	11:41	0	In Int.	Head-On	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
3143497	4/20/07	16:29	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Proceeding Straight	North	Proceeding Straight	Ped R/W Violation	1	0
3240676	6/22/07	17:15	10	West	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Unsafe Lane Change	0	0
3283108	7/21/07	3:11	15	South	Sideswipe	Other Motor Vehicle	Not Stated	Proceeding Straight	North	Proceeding Straight	Improper Turning	0	0
3297023	7/25/07	17:30	15	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
3391463	9/27/07	14:00	20	South	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Lane Change	0	0
3415686	10/12/07	16:45	0	In Int.	Other	Other Motor Vehicle	Not Stated	Other	North	Proceeding Straight	Unknown	1	0
3610729	2/28/08	12:18	30	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
3675737	3/31/08	11:37	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
3698679	4/17/08	7:35	25	East	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Changing Lanes	Unsafe Lane Change	0	0
3769703	5/21/08	9:30	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
3975214	10/15/08	7:07	0	In Int.	Vehicle - Pedestrian	Pedestrian	West	Not Stated	North	Proceeding Straight	Pedestrian Violation	1	0
3994414	11/14/08	9:05	10	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Broadway / 14th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 32

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3973615	12/11/08	8:20	20	East	Sideswipe	Parked Motor Vehicle	West	Proceeding Straight	West	Parked	Improper Turning	0	0
4208533	4/2/09	13:15	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Improper Turning	0	0
4402393	9/20/09	11:22	50	North	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
4505281	12/15/09	9:57	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Improper Turning	0	0
4602751	2/17/10	12:31	15	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Speed	0	0
4788234	5/20/10	16:49	10	East	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Proceeding Straight	Improper Turning	0	0
4733643	6/17/10	11:44	50	West	Hit Object	Fixed Object	South	Backing			Unsafe Starting or Backing	0	0
4825800	6/29/10	10:15	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Making Right Turn	Unsafe Speed	2	0
4854412	8/15/10	18:30	20	North	Rear-End	Not Stated	South	Changing Lanes	South	Stopped in Road	Unsafe Speed	0	0
4949564	10/19/10	7:39	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	2	0
5228414	3/17/11	10:30	0	In Int.	Sideswipe	Other Motor Vehicle	South	Changing Lanes	South	Proceeding Straight	Unsafe Lane Change	0	0
5198687	5/9/11	16:40	0	In Int.	Broadside	Bicycle	South	Making Left Turn	West	Proceeding Straight	Other Hazardous Movement	1	0
5226400	6/13/11	19:49	0	In Int.	Rear-End	Other Motor Vehicle	West	Making Right Turn	West	Stopped in Road	Following Too Closely	1	0
5266740	6/18/11	2:28	3	North	Vehicle - Pedestrian	Pedestrian	West	Making Right Turn	West	Not Stated	Ped R/W Violation	1	0
5214937	7/19/11	14:16	12	South	Sideswipe	Other Motor Vehicle	North	Making Right Turn	North	Stopped in Road	Improper Turning	3	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Broadway / 14th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 32

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
5261336	7/19/11	16:55	50	North	Rear-End	Other Motor Vehicle	North	Changing Lanes	North	Proceeding Straight	Unsafe Lane Change	0	0
5272723	8/5/11	18:36	6	East	Vehicle - Pedestrian	Pedestrian	West	Proceeding Straight	East	Proceeding Straight	Unknown	1	0

Total Number of Collisions: 32

Settings Used For Query

Parameter

Setting

Street Name

BROADWAY

Cross Street

14TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland**Traffic Engineering Department****Traffic Collision History Report**

7/30/2013

Page 1

Location: Franklin St / 2nd St**Date Range Reported: 8/1/2006 - 8/31/2011****Total Number of Collisions: 5**

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3002145	1/12/07	8:07	45	North	Vehicle - Pedestrian	Pedestrian	East	Proceeding Straight	Not Stated	Stopped in Road	Other	1	0
3782333	6/16/08	18:39	50	West	Other	Other Motor Vehicle	West	Backing	East	Stopped in Road	Unsafe Starting or Backing	0	0
3933149	10/11/08	17:48	40	East	Rear-End	Parked Motor Vehicle	East	Proceeding Straight	East	Parked	Improper Turning	0	0
3971445	10/27/08	4:50	45	South	Sideswipe	Other Motor Vehicle	Not Stated	Parking Maneuver	Not Stated	Parked	Improper Turning	0	0
3987353	11/4/08	17:30	50	West	Rear-End	Parked Motor Vehicle	West	Entering Traffic	West	Parked	Unsafe Starting or Backing	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Franklin St / 2nd St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 5

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 5

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	FRANKLIN ST
Cross Street	2ND ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Franklin St / 3rd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 8

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2749537	8/3/06	14:00	25	South	Sideswipe	Parked Motor Vehicle	South	Proceeding Straight	South	Parked	Improper Turning	0	0
2788686	9/11/06	8:14	0	In Int.	Broadside	Other Motor Vehicle	East	Backing	East	Making Right Turn	Other	0	0
3152854	4/20/07	23:53	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Auto R/W Violation	0	0
3472358	11/16/07	8:00	3	South	Rear-End	Parked Motor Vehicle	South	Backing	South	Parked	Improper Turning	0	0
3817144	6/23/08	11:02	15	South	Sideswipe	Other Object	East	Making Right Turn	South	Proceeding Straight	Improper Turning	0	0
4105559	2/13/09	19:42	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4477140	11/7/09	21:55	0	In Int.	Other	Parked Motor Vehicle	East	Backing	West	Parked	Other Improper Driving	0	0
5221108	7/11/11	10:50	0	In Int.	Sideswipe	Other Motor Vehicle	South	Slowing/Stopping	West	Proceeding Straight	Other Improper Driving	1	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Franklin St / 3rd St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 8

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 8

Settings Used For Query

Parameter

Setting

Street Name

FRANKLIN ST

Cross Street

3RD ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Webster St / Embarcadero West

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 3

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2908613	11/22/06	22:04	0	In Int.	Other	Fixed Object	East	Ran Off Road			Unsafe Speed	0	0
3315239	8/14/07	17:55	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Slowing/Stopping	Unsafe Speed	1	0
3648268	3/7/08	13:36	0	In Int.	Other	Other Object	West	Stopped in Road			Other Improper Driving	0	0

Total Number of Collisions: 3

Settings Used For Query

Parameter

Street Name
Cross Street
Starting Date
Ending Date
Intersection

Setting

WEBSTER ST
EMBARCADERO WEST
8/1/2006
8/31/2011
Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Harrison St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 43

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2798456	9/7/06	8:50	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Other	0	0
2821966	9/30/06	23:36	69	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
2901424	11/3/06	11:12	30	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Unsafe Speed	0	0
2916327	11/19/06	10:26	0	In Int.	Rear-End	Other Motor Vehicle	East	Making Right Turn	East	Making Right Turn	Following Too Closely	0	0
2908601	11/20/06	16:46	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unsafe Speed	0	0
2968637	12/28/06	16:15	50	East	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
3123363	4/6/07	11:00	22	South	Sideswipe	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Improper Turning	0	0
3165842	4/19/07	16:30	20	East	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
3193791	5/25/07	16:10	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Proceeding Straight	Not Stated	Not Stated	Other	1	0
3236991	6/18/07	15:14	100	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	1	0
3250375	7/3/07	7:30	42	South	Rear-End	Other Motor Vehicle	North	Making Right Turn	North	Stopped in Road	Unsafe Speed	0	0
3256513	7/9/07	14:30	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Improper Turning	0	0
3392367	10/2/07	18:05	30	Not Stated	Sideswipe	Other Motor Vehicle	Not Stated	Backing	East	Proceeding Straight	Unknown	0	0
3698642	4/17/08	10:43	0	In Int.	Sideswipe	Motor Vehicle on Other	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3699250	4/18/08	14:07	30	West	Rear-End	Other Motor Vehicle	East	Backing	East	Proceeding Straight	Unsafe Starting or Backing	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Harrison St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 43

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3803851	7/15/08	9:50	0	In Int.	Hit Object	Fixed Object	North	Making Right Turn			Improper Turning	0	0
3830993	7/19/08	19:30	30	East	Rear-End	Other Motor Vehicle	East	Merging	East	Stopped in Road	Unsafe Speed	0	0
3860321	7/30/08	15:52	0	In Int.	Rear-End	Other Motor Vehicle	North	Making Right Turn	East	Stopped in Road	Unsafe Speed	0	0
3931687	9/22/08	8:10	70	South	Rear-End	Other Motor Vehicle	North	Changing Lanes	North	Stopped in Road	Unsafe Speed	2	0
3975218	10/28/08	18:56	0	In Int.	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Unsafe Speed	0	0
3998746	12/10/08	18:08	4	North	Rear-End	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Unsafe Speed	0	0
4020530	12/12/08	9:32	10	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
4065807	12/17/08	16:00	0	In Int.	Rear-End	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Unsafe Speed	0	0
4042439	1/7/09	14:57	25	East	Hit Object	Fixed Object	East	Not Stated			Unknown	0	0
4038592	1/22/09	15:45	50	East	Rear-End	Other Motor Vehicle	East	Merging	East	Slowing/Stopping	Unsafe Speed	0	0
4130700	1/30/09	11:19	10	South	Rear-End	Not Stated	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
4138378	2/20/09	7:06	0	In Int.	Sideswipe	Other Motor Vehicle	East	Merging	East	Proceeding Straight	Unsafe Lane Change	0	0
4136957	2/20/09	15:00	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Changing Lanes	Improper Turning	0	0
4168694	3/13/09	21:50	12	South	Hit Object	Fixed Object	Not Stated	Ran Off Road			Improper Turning	0	0
4340920	7/1/09	18:00	15	South	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 3

Location: Harrison St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 43

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4353647	8/9/09	7:42	15	South	Head-On	Fixed Object	North	Proceeding Straight			Improper Turning	0	0
4404738	9/16/09	17:56	0	In Int.	Rear-End	Other Motor Vehicle	East	Making Right Turn	East	Making Right Turn	Following Too Closely	1	0
4406058	9/24/09	14:17	0	In Int.	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
4406319	9/25/09	15:30	0	In Int.	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	1	0
4427857	10/1/09	6:10	0	In Int.	Hit Object	Fixed Object	Not Stated	Proceeding Straight			Unsafe Speed	0	0
4430375	10/6/09	21:56	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Driving Under Influence	2	0
4464490	10/20/09	11:36	12	East	Rear-End	Other Motor Vehicle	East	Making Right Turn	East	Proceeding Straight	Unsafe Speed	0	0
4527524	12/18/09	15:30	35	West	Sideswipe	Other Motor Vehicle	East	Entering Traffic	East	Proceeding Straight	Unsafe Starting or Backing	0	0
4691445	3/31/10	18:02	2	South	Vehicle - Pedestrian	Pedestrian	North	Making Right Turn	West	Not Stated	Auto R/W Violation	1	0
4678203	4/14/10	12:42	0	In Int.	Rear-End	Other Motor Vehicle	East	Making Right Turn	East	Making Right Turn	Following Too Closely	0	0
4818213	7/16/10	6:50	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	4	0
4859920	8/23/10	10:20	0	In Int.	Rear-End	Other Motor Vehicle	East	Slowing/Stopping	Not Stated	Backing	Following Too Closely	0	0
4886322	9/5/10	3:25	0	In Int.	Hit Object	Not Stated	East	Ran Off Road			Unsafe Speed	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 4

Location: Harrison St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 43

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 43

Settings Used For Query

Parameter

Setting

Street Name

HARRISON ST

Cross Street

7TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Jackson St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 23

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2864399	10/24/06	13:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
3010325	1/18/07	7:50	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Making Left Turn	South	Not Stated	Ped R/W Violation	0	0
3184241	5/15/07	13:30	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	Not Stated	Proceeding Straight	Traffic Signals and Signs	1	0
3388599	9/26/07	16:00	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3524813	1/2/08	11:25	15	West	Sideswipe	Other Motor Vehicle	East	Making Right Turn	East	Proceeding Straight	Unknown	0	0
3918331	9/12/08	9:12	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	2	0
4047616	1/10/09	2:45	5	South	Hit Object	Fixed Object	South	Ran Off Road			Improper Turning	0	0
4182814	3/31/09	14:37	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
4271790	6/11/09	9:48	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	North	Stopped in Road	Improper Turning	0	0
4332866	7/15/09	20:17	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	West	Proceeding Straight	Improper Turning	0	0
4445851	9/3/09	19:55	31	West	Sideswipe	Parked Motor Vehicle	East	Making Right Turn	East	Parked	Driving Under Influence	0	0
4439477	9/18/09	21:20	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4477073	11/12/09	10:53	0	In Int.	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	0	0
4578359	1/7/10	8:54	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
4772469	5/10/10	14:32	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	2	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Jackson St / 5th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 23

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4778406	6/11/10	8:25	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Making Left Turn	East	Not Stated	Ped R/W Violation	1	0
4818217	7/16/10	8:37	60	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	1	0
4874626	9/5/10	13:11	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
4880496	9/11/10	18:25	50	South	Head-On	Other Motor Vehicle	South	Crossed Into Opposing	North	Proceeding Straight	Unsafe Speed	2	0
4894972	9/22/10	12:25	0	In Int.	Vehicle - Pedestrian	Pedestrian	South	Making Left Turn	North	Proceeding Straight	Ped R/W Violation	1	0
5230397	5/1/11	13:20	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
5253742	6/30/11	9:00	100	West	Rear-End	Other Motor Vehicle	East	Slowing/Stopping	East	Slowing/Stopping	Unsafe Speed	1	0
5298868	8/18/11	12:05	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 3

Location: Jackson St / 5th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 23

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 23

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	JACKSON ST
Cross Street	5TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Jackson St / 6th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 30

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2804367	9/17/06	16:50	0	In Int.	Not Stated	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
2845846	10/13/06	1:00	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
2845916	10/15/06	14:00	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
3009851	1/3/07	22:55	60	East	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Stopped in Road	Unsafe Speed	0	0
3026970	1/30/07	13:49	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3078715	3/10/07	11:25	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
3092653	3/16/07	18:45	0	In Int.	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3145287	4/10/07	18:10	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
3240672	6/18/07	21:15	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3422767	10/13/07	21:14	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
3490930	11/22/07	8:24	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
3490958	11/30/07	21:31	0	In Int.	Broadside	Motor Vehicle on Other	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	2	0
3671417	3/21/08	7:09	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3746640	5/17/08	9:11	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3895365	7/22/08	17:30	0	In Int.	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Other	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Jackson St / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 30

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3850635	7/26/08	9:12	0	In Int.	Broadside	Motor Vehicle on Other	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3953059	10/22/08	9:15	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Passing Other Vehicle	Improper Turning	0	0
4078982	1/18/09	11:50	20	East	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Stopped in Road	Unsafe Speed	0	0
4229123	4/2/09	15:50	50	North	Rear-End	Other Motor Vehicle	North	Making Right Turn	North	Proceeding Straight	Unsafe Speed	0	0
4245684	5/10/09	17:00	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4251240	5/17/09	23:04	15	North	Rear-End	Parked Motor Vehicle	South	Making Left Turn	South	Parked	Improper Turning	0	0
4401880	9/21/09	11:40	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4464963	10/10/09	7:26	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
4476992	11/24/09	15:36	40	Not Stated	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Stopped in Road	Unsafe Speed	0	0
4577853	1/29/10	7:14	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
4839571	7/3/10	19:45	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4826285	7/22/10	12:42	25	East	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Slowing/Stopping	Following Too Closely	0	0
4880524	9/17/10	10:34	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	1	0
5295030	2/24/11	13:35	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
5194059	6/24/11	13:21	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Jackson St / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 30

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 30

Settings Used For Query

Parameter

Setting

Street Name

JACKSON ST

Cross Street

6TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Jackson St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 26

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2916374	11/18/06	10:29	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Making Right Turn	Traffic Signals and Signs	1	0
3025164	1/31/07	7:33	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3249904	6/30/07	23:20	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3284037	7/23/07	9:42	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
3466433	10/19/07	21:49	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Making Right Turn	Improper Turning	0	0
3463170	11/7/07	17:10	0	In Int.	Broadside	Pedestrian	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
3472280	11/15/07	9:00	20	West	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Unsafe Lane Change	0	0
3743086	5/20/08	12:11	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3821644	7/10/08	8:09	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
3893421	9/2/08	9:15	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Making Left Turn	West	Proceeding Straight	Ped R/W Violation	3	0
3967403	11/20/08	14:04	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3967398	11/24/08	10:22	0	In Int.	Sideswipe	Other Motor Vehicle	East	Passing Other Vehicle	East	Proceeding Straight	Improper Passing	0	0
4047612	1/3/09	15:21	12	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Slowing/Stopping	Unsafe Speed	0	0
4207123	3/31/09	13:10	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Improper Turning	0	0
4222592	4/25/09	20:57	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Making Left Turn	North	Not Stated	Ped R/W Violation	1	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Jackson St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 26

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4231053	5/1/09	17:00	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
4243796	5/5/09	18:54	50	West	Sideswipe	Parked Motor Vehicle	East	Other	East	Parked	Improper Turning	0	0
4317181	6/25/09	9:39	15	North	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	2	0
4452682	10/11/09	14:42	0	In Int.	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	1	0
4625253	3/5/10	22:47	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Making Right Turn	West	Proceeding Straight	Other	0	0
4765708	6/12/10	2:00	10	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	0	0
4826261	7/11/10	11:20	79	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Stopped in Road	Unsafe Speed	1	0
4942885	10/17/10	3:51	30	West	Rear-End	Parked Motor Vehicle	East	Proceeding Straight	East	Parked	Improper Turning	0	0
5006807	10/26/10	2:43	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Making Left Turn	Traffic Signals and Signs	0	0
4975959	12/15/10	14:45	0	In Int.	Other	Bicycle	East	Making Right Turn	East	Proceeding Straight	Improper Turning	1	0
5298860	8/18/11	11:25	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	2	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Jackson St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 26

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 26

Settings Used For Query

Parameter

Setting

Street Name

JACKSON ST

Cross Street

7TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Madison St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 10

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2871783	10/26/06	19:46	0	In Int.	Broadside	Other Motor Vehicle	South	Stopped in Road	East	Stopped in Road	Traffic Signals and Signs	2	0
2988920	1/6/07	15:26	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Making Left Turn	Traffic Signals and Signs	0	0
3340045	9/3/07	10:20	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Making Left Turn	Improper Turning	0	0
3638685	3/3/08	10:28	0	In Int.	Broadside	Other Motor Vehicle	East	Making Right Turn	East	Proceeding Straight	Improper Turning	0	0
3870538	5/27/08	15:54	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
3866194	8/2/08	16:22	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	East	Proceeding Straight	Traffic Signals and Signs	0	0
4014595	11/4/08	17:21	0	In Int.	Vehicle - Pedestrian	Non-Collision	West	Making U Turn	Not Stated	Other	Unsafe Starting or Backing	0	0
4452705	10/21/09	14:21	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4928911	9/12/10	16:36	0	In Int.	Hit Object	Fixed Object	East	Making Left Turn			Improper Turning	0	0
5269073	7/8/11	7:45	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	West	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Madison St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 10

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 10

Settings Used For Query

Parameter

Setting

Street Name

MADISON ST

Cross Street

5TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Madison St / 6th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 19

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2885285	11/7/06	16:45	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3150860	4/26/07	16:58	35	East	Rear-End	Other Motor Vehicle	West	Stopped in Road	West	Merging	Unsafe Starting or Backing	0	0
3250344	7/2/07	21:50	20	North	Rear-End	Other Motor Vehicle	South	Stopped in Road	South	Proceeding Straight	Unsafe Speed	0	0
3490869	12/3/07	8:53	0	In Int.	Head-On	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
3491400	12/6/07	13:30	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
3551646	12/29/07	9:01	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3850627	7/26/08	17:10	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4106631	1/22/09	22:31	0	In Int.	Broadside	Other Motor Vehicle	South	Making Right Turn	South	Proceeding Straight	Improper Turning	0	0
4120375	2/21/09	10:23	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4198690	3/11/09	9:48	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4206936	3/20/09	18:23	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4314188	7/10/09	7:59	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4475225	11/8/09	6:29	15	South	Rear-End	Parked Motor Vehicle	Not Stated	Other Unsafe Turning	Not Stated	Not Stated	Improper Turning	0	0
4735932	6/23/10	1:47	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4827458	7/17/10	20:13	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland**Traffic Engineering Department****Traffic Collision History Report**

7/30/2013

Page 2

Location: Madison St / 6th St**Date Range Reported: 8/1/2006 - 8/31/2011****Total Number of Collisions: 19**

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4846767	7/22/10	11:48	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4845122	8/6/10	13:54	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
5038164	12/15/10	12:41	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	1	0
5213257	5/30/11	19:52	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 3

Location: Madison St / 6th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 19

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 19

Settings Used For Query

Parameter

Setting

Street Name

MADISON ST

Cross Street

6TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Madison St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 33

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2775962	8/14/06	13:45	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Right Turn	East	Proceeding Straight	Traffic Signals and Signs	0	0
2985892	1/13/07	14:26	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3042915	2/3/07	12:53	0	In Int.	Sideswipe	Other Motor Vehicle	East	Changing Lanes	East	Proceeding Straight	Unsafe Lane Change	0	0
3260257	7/7/07	7:40	30	South	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Improper Turning	0	0
3388414	9/22/07	15:49	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	4	0
3442835	10/17/07	21:16	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	East	Proceeding Straight	Auto R/W Violation	0	0
3467813	11/1/07	9:30	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
3467805	11/1/07	21:10	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
3572592	1/31/08	18:37	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Right Turn	South	Making Right Turn	Improper Turning	0	0
3657094	3/13/08	14:30	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3675710	3/22/08	8:48	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3826900	6/12/08	17:53	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3865357	6/12/08	19:02	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3823450	7/5/08	0:01	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4019401	12/1/08	16:56	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Madison St / 7th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 33

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4345347	8/3/09	22:10	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
4377897	8/20/09	10:14	10	North	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Unsafe Lane Change	0	0
4376834	8/25/09	11:41	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Auto R/W Violation	2	0
4455371	10/14/09	17:50	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
4471119	11/8/09	20:53	5	West	Rear-End	Other Motor Vehicle	East	Slowing/Stopping	East	Stopped in Road	Unsafe Speed	0	0
4512071	11/21/09	16:26	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4510493	11/21/09	17:44	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4527567	12/26/09	13:19	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4624717	2/24/10	22:51	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4638898	3/10/10	16:35	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4765707	6/10/10	23:35	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4834211	7/13/10	13:00	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
4894352	10/5/10	13:29	7	South	Sideswipe	Parked Motor Vehicle	South	Making Right Turn	South	Parked	Improper Turning	0	0
4941730	10/30/10	10:23	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0
5194287	5/25/11	14:00	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 3

Location: Madison St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 33

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
5219283	7/3/11	9:44	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
5214905	7/19/11	13:38	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0
5272770	8/15/11	10:00	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0

Total Number of Collisions: 33

Settings Used For Query

Parameter

Setting

Street Name

MADISON ST

Cross Street

7TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Oak St / Embarcadero

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 9

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2753872	8/3/06	16:45	0	In Int.	Other	Other Object	North	Stopped in Road			Other Than Driver or Ped	1	0
2881234	11/2/06	21:50	0	In Int.	Hit Object	Fixed Object	East	Stopped in Road			Unsafe Speed	2	0
3376448	10/10/07	8:30	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0
4120425	9/5/08	17:50	25	East	Overtaken	Non-Collision	East	Slowing/Stopping			Other Than Driver or Ped	0	0
3908991	9/8/08	9:00	0	In Int.	Sideswipe	Pedestrian	East	Making Right Turn	North	Proceeding Straight	Ped R/W Violation	1	0
4245736	5/21/09	19:45	0	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0
4452683	10/13/09	3:45	0	In Int.	Hit Object	Fixed Object	West	Making Left Turn			Other Improper Driving	0	0
4538189	11/28/09	0:59	50	East	Hit Object	Fixed Object	West	Proceeding Straight			Unsafe Speed	0	0
4678219	4/14/10	17:54	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Oak St / Embarcadero

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 9

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 9

Settings Used For Query

Parameter

Setting

Street Name

OAK ST

Cross Street

EMBARCADERO

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Oak St / Embarcadero West
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 9

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2753872	8/3/06	16:45	0	In Int.	Other	Other Object	North	Stopped in Road			Other Than Driver or Ped	1	0
2881234	11/2/06	21:50	0	In Int.	Hit Object	Fixed Object	East	Stopped in Road			Unsafe Speed	2	0
3376448	10/10/07	8:30	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0
4120425	9/5/08	17:50	25	East	Overtaken	Non-Collision	East	Slowing/Stopping			Other Than Driver or Ped	0	0
3908991	9/8/08	9:00	0	In Int.	Sideswipe	Pedestrian	East	Making Right Turn	North	Proceeding Straight	Ped R/W Violation	1	0
4245736	5/21/09	19:45	0	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	1	0
4452683	10/13/09	3:45	0	In Int.	Hit Object	Fixed Object	West	Making Left Turn			Other Improper Driving	0	0
4538189	11/28/09	0:59	50	East	Hit Object	Fixed Object	West	Proceeding Straight			Unsafe Speed	0	0
4678219	4/14/10	17:54	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	0	0

City of Oakland

Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Oak St / Embarcadero West

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 9

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 9

Settings Used For Query

Parameter

Setting

Street Name

OAK ST

Cross Street

EMBARCADERO WEST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland**Traffic Engineering Department****Traffic Collision History Report**

7/30/2013

Page 1

Location: Oak St / 3rd St**Date Range Reported: 8/1/2006 - 8/31/2011****Total Number of Collisions: 3**

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2770327	8/11/06	3:38	50	West	Broadside	Parked Motor Vehicle	South	Backing	North	Parked	Unsafe Starting or Backing	0	0
9023155	8/26/06	1:50	0	In Int.	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Driving Under Influence	1	0
4663868	4/21/10	10:16	125	West	Rear-End	Other Motor Vehicle	East	Backing	East	Stopped in Road	Unsafe Starting or Backing	0	0

Total Number of Collisions: 3

Settings Used For Query

Parameter**Setting****Street Name****OAK ST****Cross Street****3RD ST****Starting Date****8/1/2006****Ending Date****8/31/2011****Intersection****Intersection Related**

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 1

Location: Oak St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 15

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2782747	8/21/06	10:50	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
2871796	10/23/06	9:14	0	In Int.	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
2942459	12/1/06	12:40	0	In Int.	Hit Object	Fixed Object	South	Proceeding Straight			Other Hazardous Movement	0	0
3122713	4/4/07	7:40	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	2	0
3641508	2/27/08	17:21	0	In Int.	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Improper Turning	0	0
3694405	3/29/08	11:53	0	In Int.	Sideswipe	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Improper Turning	0	0
4206928	3/18/09	9:45	19	West	Sideswipe	Other Motor Vehicle	East	Proceeding Straight	East	Making Right Turn	Improper Passing	0	0
4209075	3/21/09	12:01	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
4208345	4/11/09	10:44	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	North	Proceeding Straight	Improper Turning	0	0
4736644	6/17/10	7:30	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Right Turn	North	Proceeding Straight	Unknown	0	0
4972252	11/25/10	9:34	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	2	0
4953403	12/3/10	1:47	50	South	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Other Than Driver or Ped	0	0
5228418	3/17/11	9:04	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
5219297	7/3/11	18:44	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	1	0
5251236	7/26/11	19:00	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Traffic Signals and Signs	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013

Page 2

Location: Oak St / 5th St

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 15

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 15

Settings Used For Query

Parameter

Setting

Street Name

OAK ST

Cross Street

5TH ST

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Oak St / 6th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 17

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2871807	10/31/06	19:00	0	In Int.	Broadside	Not Stated	West	Proceeding Straight	North	Proceeding Straight	Unsafe Speed	0	0
3143495	4/21/07	13:44	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
3152830	4/30/07	12:00	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	West	Making Right Turn	Improper Turning	0	0
3331298	8/17/07	10:45	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Right Turn	North	Making Right Turn	Unknown	0	0
3732655	3/30/08	14:20	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
3817148	6/19/08	19:55	20	North	Sideswipe	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Unsafe Lane Change	0	0
3915826	8/26/08	11:02	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	West	Proceeding Straight	Traffic Signals and Signs	0	0
4007387	10/26/08	16:30	20	North	Sideswipe	Parked Motor Vehicle	South	Backing	North	Parked	Unsafe Starting or Backing	0	0
4349209	7/16/09	13:50	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0
4344777	8/5/09	12:13	0	In Int.	Broadside	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0
4402361	9/24/09	15:10	0	In Int.	Broadside	Other Motor Vehicle	North	Making Right Turn	West	Stopped in Road	Improper Turning	0	0
4527411	11/29/09	14:00	0	In Int.	Sideswipe	Other Motor Vehicle	West	Changing Lanes	West	Proceeding Straight	Unsafe Lane Change	0	0
4782302	5/7/10	22:50	15	West	Rear-End	Motor Vehicle on Other	East	Proceeding Straight	East	Slowing/Stopping	Driving Under Influence	0	0
4933168	10/10/10	12:31	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Unknown	1	0
4938364	10/31/10	11:47	0	In Int.	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Making Right Turn	Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: Oak St / 6th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 17

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
5258006	7/27/11	6:55	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
5277437	8/16/11	18:15	0	In Int.	Vehicle - Pedestrian	Pedestrian	West	Making Left Turn	South	Proceeding Straight	Ped R/W Violation	2	0

Total Number of Collisions: 17

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	OAK ST
Cross Street	6TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: Oak St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 21

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2749530	8/1/06	19:50	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
2822896	10/3/06	4:50	0	In Int.	Broadside	Motor Vehicle on Other	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
3002151	1/20/07	10:05	0	In Int.	Sideswipe	Other Motor Vehicle	Not Stated	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3184362	4/29/07	16:42	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Making Left Turn	East	Not Stated	Ped R/W Violation	1	0
3246209	6/30/07	21:25	0	In Int.	Sideswipe	Other Motor Vehicle	North	Changing Lanes	North	Proceeding Straight	Unsafe Lane Change	0	0
3412191	10/9/07	14:20	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3494932	11/3/07	9:28	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Making Left Turn	East	Other	Ped R/W Violation	1	0
3590212	1/25/08	18:42	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Making Left Turn	East	Other	Ped R/W Violation	1	0
3639555	3/5/08	11:17	0	In Int.	Sideswipe	Other Motor Vehicle	North	Making Right Turn	East	Proceeding Straight	Auto R/W Violation	0	0
3648274	3/5/08	20:39	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
3658527	3/19/08	12:08	0	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3731284	4/26/08	0:03	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
3766463	5/31/08	17:30	20	West	Rear-End	Parked Motor Vehicle	East	Proceeding Straight	East	Parked	Improper Turning	0	0
3798645	7/6/08	15:10	0	In Int.	Sideswipe	Other Motor Vehicle	East	Making Left Turn	East	Proceeding Straight	Improper Turning	0	0
3970022	11/6/08	21:25	40	West	Rear-End	Parked Motor Vehicle	East	Proceeding Straight	East	Parked	Unsafe Speed	1	0

City of Oakland**Traffic Engineering Department****Traffic Collision History Report**

7/30/2013

Page 2

Location: Oak St / 7th St**Date Range Reported: 8/1/2006 - 8/31/2011****Total Number of Collisions: 21**

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
4042432	1/8/09	17:34	10	West	Rear-End	Other Motor Vehicle	East	Slowing/Stopping	East	Slowing/Stopping	Unsafe Speed	0	0
4133595	1/23/09	8:00	0	In Int.	Not Stated	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4427443	10/3/09	9:44	0	In Int.	Other	Other Motor Vehicle	South	Backing	North	Stopped in Road	Unsafe Starting or Backing	0	0
4452647	10/24/09	12:32	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
4936490	10/4/10	9:04	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	1	0
5214909	7/19/11	13:30	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 3

Location: Oak St / 7th St
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 21

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 21

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	OAK ST
Cross Street	7TH ST
Starting Date	8/1/2006
Ending Date	8/31/2011
Intersection	Intersection Related

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 1

Location: 5th Av / Embarcadero

Date Range Reported: 8/1/2006 - 8/31/2011

Total Number of Collisions: 11

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2798166	9/16/06	20:30	0	In Int.	Broadside	Other Motor Vehicle	West	Making U Turn	West	Proceeding Straight	Improper Turning	0	0
2879977	11/3/06	11:00	50	West	Head-On	Other Motor Vehicle	East	Backing	West	Proceeding Straight	Unsafe Starting or Backing	0	0
3237554	6/7/07	18:49	6	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unsafe Speed	0	0
3415733	10/13/07	16:40	0	In Int.	Sideswipe	Bicycle	East	Proceeding Straight	South	Proceeding Straight	Auto R/W Violation	1	0
3474041	10/20/07	7:46	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	South	Making Left Turn	Auto R/W Violation	1	0
3639523	3/5/08	14:49	3	North	Vehicle - Pedestrian	Pedestrian	East	Backing	Not Stated	Not Stated	Unsafe Starting or Backing	1	0
4405618	8/31/09	12:30	2	North	Rear-End	Other Motor Vehicle	Not Stated	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
4402338	9/28/09	18:06	0	In Int.	Broadside	Other Motor Vehicle	West	Proceeding Straight	South	Making Left Turn	Auto R/W Violation	0	0
4565213	1/4/10	3:30	45	North	Hit Object	Fixed Object	South	Ran Off Road			Driving Under Influence	0	0
5014897	12/10/10	12:00	20	West	Rear-End	Other Motor Vehicle	East	Slowing/Stopping	East	Stopped in Road	Unsafe Speed	1	0
5210501	5/17/11	19:35	0	In Int.	Hit Object	Fixed Object	East	Making Left Turn			Improper Turning	0	0

City of Oakland
Traffic Engineering Department

Traffic Collision History Report

7/30/2013
Page 2

Location: 5th Av / Embarcadero
Date Range Reported: 8/1/2006 - 8/31/2011
Total Number of Collisions: 11

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
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Total Number of Collisions: 11

Settings Used For Query

Parameter

Setting

Street Name

5TH AV

Cross Street

EMBARCADERO

Starting Date

8/1/2006

Ending Date

8/31/2011

Intersection

Intersection Related

Atlantic Avenue, sometimes referred to as Ralph Appezatto Memorial Parkway (RAMP) at the Webster Street intersection

At the intersections of Webster Street and Constitution Way

Collision Analysis

2008/06/01 - 2013/05/31

At or near Webster Street

Location	Rpt #	Acc-Date	Acc-Time	Viol-1	Inj	Ped	Bicycle	Kill	Remarks
2100 WEBSTER ST	80006649	9/10/2008	1834	21658A	0			0	WEBSTER .3N ATLANTIC - 2N - S/SWIPE - 2 STRAIGHT
WEBSTER ST/ATLANTIC AV	80007393	10/7/2008	2142	22350	0			0	WEBSTER 17S ATLANTIC - 2N - REAR END - STRAIGHT,STOPPED
WEBSTER ST/RALPH APPEZZATO MEMO PK	80008144	11/5/2008	1856	22107	0			0	WEBSTER X RALPH APPEZZATO - 2E - S/SWIPE - 2 L/TURN
2100 WEBSTER ST	80008340	11/12/2008	1736	22350	0			0	WEBSTER .5N RALPH APPEZZATO - 2S - R/END - STRAIGHT,STOPPED
600 RALPH APPEZZATO MEMO PK	80008878	12/5/2008	843	22350	0			0	RALPH APPEZZATO 23.8W WEBSTER - 2E - R/END - STRAIGHT,SLOWING
2100 WEBSTER ST	80008979	12/9/2008	1258	22350	0			0	WEBSTER 111N ATLANTIC - 2S - R/END - STRAIGHT,STOPPED
2100 WEBSTER ST	90000310	1/13/2009	1504	22107	0			0	WEBSTER 1N ATLANTIC - 2S - S/SWIPE - CHANGING LANES,STRAIGHT
2100 WEBSTER ST	90000757	1/30/2009	1217	22350	0			0	WEBSTER 53W ATLANTIC - 2E - R/END - STRAIGHT,STOPPED
WEBSTER ST/RALPH APPEZZATO MEMO PK	90002109	3/25/2009	1343	21453A	1		Y	0	WEBSTER X RALPH APPEZZATO - S,E - B/SIDE - R/TURN,ENTERING TRAFFIC
2100 WEBSTER ST	90002786	4/20/2009	2105	22350	0			0	WEBSTER 42S ATLANTIC - 2N - R/END - STRAIGHT,STOPPED
2499 WEBSTER ST	90003193	5/6/2009	2125	23152	0			0	WEBSTER .6N ATLANTIC - N - S/SWIPE - CHANGING LANES
2100 WEBSTER ST	90005011	7/18/2009	149	21658A	0			0	WEBSTER 48S ATLANTIC - E,S - B/SIDE - MAKING L/TURN,STRAIGHT
2100 WEBSTER ST	90005107	7/21/2009	1331	22350	0			0	WEBSTER 54S ATLANTIC - 3N - R/END - STRAIGHT, 2 STOPPED
2101 WEBSTER ST	090005852	8/19/2009	1252	22350	0			0	WEBSTER 51N RALPH APPEZZATO MEM PK - 2S - REAREND - STRAIGHT,STOPPED
2400 WEBSTER ST	090006769	9/24/2009	1850	22107	0			0	WEBSTER .35N ATLANTIC - 2N - S/SWIPE - CHANGING/STRAIGHT
2100 WEBSTER ST	090007216	10/13/2009	1028	22350	0			0	WEBSTER .5N ATLANTIC - 2N - S/SWIPE - SLOWING,STRAIGHT
2100 WEBSTER ST	090007424	10/21/2009	1327	21801	0			0	WEBSTER 128S ATLANTIC - S,N - B/SIDE - LEFT TURN,STRAIGHT
1900 WEBSTER ST	090008570	12/10/2009	2108	22107	0			0	WEBSTER 114S ATLANTIC - 3S - S/SWIPE - 2 STRAIGHT,STOPPED
WEBSTER ST/ATLANTIC AV	100000808	2/5/2010	0717	22350	0			0	WEBSTER X ATLANTIC - N - SIDE SWIPE/LIGHTPOLE - LEFT TURN
2000 WEBSTER ST	100001272	2/22/2010	1703	22107	0			0	WEBSTER .25N ATLANTIC - 2N - SIDE SWIPE - MERGING,STRAIGHT
2100 WEBSTER ST	100002378	4/18/2010	0130	22350	0			0	WEBSTER 24N ATLANTIC - 2S - R/END - STRAIGHT,STOPPED
1900 WEBSTER ST	100002487	4/22/2010	1705	22107	0			0	WEBSTER 60S ATLANTIC - 2S - S/SWIPE - 2 STRAIGHT
600 RALPH APPEZZATO MEMO PK	100006371	10/4/2010	1300	21658A	0			0	RALPH APPEZZATO 50W WEBSTER - 2E - S/SWIPE - CHANGING LANES,STRAIGHT
700 ATLANTIC AV	100006424	10/6/2010	1125	22107	0			0	ATLANTIC 290E WEBSTER - 2S - S/SWIPE - 2 MAKING RIGHT TURN
2100 WEBSTER ST	100007314	11/13/2010	0831	22350	0			0	WEBSTER 92S ATLANTIC - 2D - R/END - STRAIGHT,STOPPED
2000 WEBSTER ST	100007353	11/14/2010	1904	22107	0			0	WEBSTER 12E ATLANTIC - W - HIT OBJECT - MAKING RIGHT TURN
700 ATLANTIC AV	100007366	11/15/2010	0959	22107	0			0	ATLANTIC 22E WEBSTER - E - HIT OBJECT - RAN OFF ROAD
720 ATLANTIC AV	110003030	5/21/2011	0833	21804	0			0	ATLANTIC AV 154E WEBSTER - N,E - BROADSIDE - 2 STRAIGHT
700 ATLANTIC AV	110004564	7/26/2011	1050	21804	2		Y	0	ATLANTIC 247E WEBSTER - S,E - B/SIDE - 2 STRAIGHT
2100 WEBSTER ST	110004712	8/1/2011	1504	22350	1			0	WEBSTER 5N ATLANTIC - 2N - R/END - STRAIGHT,STOPPED
WEBSTER ST/RALPH APPEZZATO MEMO PK	110006255	10/9/2011	0932	21658A	0			0	WEBSTER X RAMP - 3S - R/END - 1 CHANGING LANES, 2 STRAIGHT
2100 WEBSTER ST	110006188	10/6/2011	0853	22350	1			0	WEBSTER 19N RAMP - 2S - R/END - STRAIGHT,STOPPED
2100 WEBSTER ST	110007370	12/2/2011	0645	22350	0			0	WEBSTER 52N RALPH APPEZZATO - 2S - R/END - STRAIGHT,STOPPED
2100 WEBSTER ST	120000048	1/3/2012	1314	22350	1			0	WEBSTER 56S RALPH APPEZZATO - 2N - REAR END - STRAIGHT, STOPPED
2100 WEBSTER ST	120001241	2/27/2012	1851	23152	0			0	WEBSTER 42N ATLANTIC - 2S - R/END - STRAIGHT,STOPPED
2000 WEBSTER ST	120002601	5/1/2012	1756	22350	0			0	WEBSTER 6N ATLANTIC - 2S - R/END - 2 STRAIGHT
WEBSTER ST/ATLANTIC AV	130001232	3/8/2013	1149	22350	1			0	WEBSTER X ATLANTIC - 2N - R/END - STRAIGHT,CHANGING LANES
WEBSTER ST/RALPH APPEZZATO MEMO PK	130001376	3/15/2013	1146	22107	0			0	WEBSTER X RALPH APPEZZATO - W - HIT OBJ/SIGNAL LT - R/TURN
700 RALPH APPEZZATO	130001984	4/16/2013	1555	22350	0			0	RALPH APPEZZATO 12E WEBSTER - 2W - R/END - STRAIGHT,STOPPED
700 ATLANTIC AV	130002020	4/18/2013	0909	21804	0			0	ATLANTIC 175E WEBSTER - N,E - BROADSIDE - ENTER TRAFFIC,STRAIGHT

At or near Constitution Way

Location	Rpt #	Acc-Date	Acc-Time	Viol-1	Inj	Ped	Bicycle	Kill	Remarks
ATLANTIC AV/CONSTITUTION WY	080005526	7/28/2008	1125	21801	1			0	ATLANTIC X CONSTITUTION - E,W - B/SIDE - L/TURN,STRAIGHT
CONSTITUTION WY/ATLANTIC AV	080005020	7/10/2008	0714	21950A	1	Y		0	CONSTITUTION 12N ATLANTIC - E,W - VEH/PED - L/TURN,STRAIGHT <i>ped</i>
CONSTITUTION WY/ATLANTIC AV	80007118	9/27/2008	1938	21801	0			0	ATLANTIC X CONSTITUTION - E,W - HEAD ON - LFT/TRN,STRAIGHT
1900 CONSTITUTION WY	90000487	1/20/2009	754	21802	1			0	CONSTITUTION 6N ATLANTIC - S,W - B/SIDE - MAKING R/TURN, STRAIGHT
ATLANTIC AV/CONSTITUTION WY	90002323	4/2/2009	2001	UNK	0			0	ATLANTIC 300W CONSTITUTION - UNK,S - S/SWIPE - BACKING,PARKED
CONSTITUTION WY/ATLANTIC AV	090007061	10/6/2009	1605	22107	0			0	CONSTITUTION X ATLANTIC - N,W - B/SIDE - L/TURN,STRAIGHT
2000 CONSTITUTION WY	100000505	1/24/2010	0246	UNK	0			0	CONSTITUTION 0.1N ATLANTIC - S - HEAD ON/TRFC SIGN/TREE - RAN OFF RD
CONSTITUTION WY/ATLANTIC AV	100000559	1/26/2010	1224	21453A	1			0	CONSTITUTION X ATLANTIC - S,E,N - SIDE SWIPE - 2 STRAIGHT,STOPPED
ATLANTIC AV/CONSTITUTION WY	100003219	5/25/2010	1744	21801	0			0	ATLANTIC X CONSTITUTION - E,W - B/SIDE - MAKING LEFT TURN,STRAIGHT
CONSTITUTION WY/ATLANTIC AV	100004504	7/19/2010	1317	21950A	1	Y		0	CONSTITUTION X ATLANTIC - S,E - S/SWIPE - UNK,UNK
1900 CONSTITUTION WY	100007888	12/9/2010	1448	22350	0			0	CONSTITUTION 25S ATLANTIC - 2N - R/END - STRAIGHT,STOPPED
ATLANTIC AV/CONSTITUTION WY	110000680	2/1/2011	1825	21800	0			0	ATLANTIC X CONSTITUTION - W,E - B/SIDE - MAKING LEFT TURN, STRAIGHT
700 ATLANTIC AV	110006276	10/10/2011	1420	22107	0			0	ATLANTIC 22E CONSTITUTION - E - HIT OBJECT - MAKING LEFT TURN
1900 CONSTITUTION WY	120001330	3/3/2012	0243	22107	0			0	CONSTITUTION 60.8S ATLANTIC - S - HIT OBJECT - STRAIGHT
ATLANTIC AV/CONSTITUTION WY	120005583	10/4/2012	2237	21801	1			0	ATLANTIC X CONSTITUTION - E,W - HEAD ON - L/TURN,STRAIGHT
1900 CONSTITUTION WY	120006258	11/9/2012	1335	22106	0			0	CONSTITUTION 38N ATLANTIC - 2S - R/END - STRAIGHT,STOPPED

APPENDIX C

Air Quality Technical Data

Jack London Square - 2004 Construction Emissions
Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	90	1000sqft
General Office Building	134	1000sqft
Movie Theater (No Matinee)	41	1000sqft
Regional Shopping Center	59	1000sqft
Regional Shopping Center	15	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

Project Characteristics -

Land Use - Proposed uses on Sites D and F2.

Construction Phase - Anticipated two-year construction schedule period for 2004 Project .

Demolition - Sites D and F footprints = 38,000 sf + 57,000 sf = 95,000 sf

Debris weight to area ration = 0.046 ton/sf (from USEPA); 95,000 sf x 0.046 tons/sf = 4,370 tons

Grading - Total footprints of Sites D and F2: 38,000 sf + 57,000 sf = 95,000 sf = 2.18 acres.

Assumes 6 ft of excavation, resulting in approximately 21,100 cy of soil excavation.

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Assumes standard BMPs such as daily watering and limiting of construction vehicle speeds.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.97	77.83	46.06	0.12	67.99	3.40	71.39	9.94	3.40	13.24	0.00	12,065.41	0.00	0.80	0.00	12,082.27
2016	33.63	36.90	36.94	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,436.40	0.00	0.50	0.00	7,446.97
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.97	77.83	46.06	0.12	64.23	3.40	67.63	3.88	3.40	7.18	0.00	12,065.41	0.00	0.80	0.00	12,082.27
2016	33.63	36.90	36.94	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,436.40	0.00	0.50	0.00	7,446.97
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.83	0.00	2.83	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92		7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	2.83	2.92	5.75	0.00	2.92	2.92		7,510.81		0.71		7,525.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.50	5.86	2.56	0.01	10.09	0.19	10.28	0.04	0.19	0.23		1,089.03		0.02		1,089.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	0.60	5.95	3.57	0.01	10.31	0.20	10.51	0.05	0.20	0.25		1,264.21		0.03		1,264.92

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.11	0.00	1.11	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92	0.00	7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	1.11	2.92	4.03	0.00	2.92	2.92	0.00	7,510.81		0.71		7,525.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.50	5.86	2.56	0.01	10.09	0.19	10.28	0.04	0.19	0.23		1,089.03		0.02		1,089.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	0.60	5.95	3.57	0.01	10.31	0.20	10.51	0.05	0.20	0.25		1,264.21		0.03		1,264.92

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.20	0.00	18.20	9.93	0.00	9.93						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29		7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	18.20	3.29	21.49	9.93	3.29	13.22		7,997.69		0.79		8,014.30

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46
Total	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.10	0.00	7.10	3.87	0.00	3.87						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29	0.00	7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	7.10	3.29	10.39	3.87	3.29	7.16	0.00	7,997.69		0.79		8,014.30

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Worker	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46
Total	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.16	0.00	6.16	3.32	0.00	3.32						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23		5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	6.16	2.23	8.39	3.32	2.23	5.55		5,240.06		0.50		5,250.58

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.02	35.81	15.61	0.06	61.60	1.16	62.76	0.22	1.16	1.38		6,650.17		0.15		6,653.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	3.12	35.90	16.62	0.06	61.82	1.17	62.99	0.23	1.17	1.40		6,825.35		0.16		6,828.62

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Fugitive Dust					2.40	0.00	2.40	1.30	0.00	1.30						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23	0.00	5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	2.40	2.23	4.63	1.30	2.23	3.53	0.00	5,240.06		0.50		5,250.58

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.02	35.81	15.61	0.06	61.60	1.16	62.76	0.22	1.16	1.38		6,650.17		0.15		6,653.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	3.12	35.90	16.62	0.06	61.82	1.17	62.99	0.23	1.17	1.40		6,825.35		0.16		6,828.62

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.88	4.03	0.01	0.52	0.23	0.75	0.04	0.23	0.27		1,535.99		0.03		1,536.66
Worker	0.76	0.70	7.63	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,319.65		0.07		1,321.20
Total	1.42	8.58	11.66	0.02	2.21	0.28	2.49	0.10	0.28	0.38		2,855.64		0.10		2,857.86

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.88	4.03	0.01	0.52	0.23	0.75	0.04	0.23	0.27		1,535.99		0.03		1,536.66
Worker	0.76	0.70	7.63	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,319.65		0.07		1,321.20
Total	1.42	8.58	11.66	0.02	2.21	0.28	2.49	0.10	0.28	0.38		2,855.64		0.10		2,857.86

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.61	7.24	3.77	0.01	0.52	0.21	0.72	0.04	0.21	0.25		1,537.26		0.03		1,537.87
Worker	0.71	0.64	7.05	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,310.58		0.07		1,312.05
Total	1.32	7.88	10.82	0.02	2.21	0.26	2.47	0.10	0.26	0.37		2,847.84		0.10		2,849.92

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.61	7.24	3.77	0.01	0.52	0.21	0.72	0.04	0.21	0.25		1,537.26		0.03		1,537.87
Worker	0.71	0.64	7.05	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,310.58		0.07		1,312.05
Total	1.32	7.88	10.82	0.02	2.21	0.26	2.47	0.10	0.26	0.37		2,847.84		0.10		2,849.92

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01	267.05
Total	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01	267.05

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01		267.05
Total	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01		267.05

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17
Total	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17
Total	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17

Jack London Square - 2004 Construction Emissions
Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	90	1000sqft
General Office Building	134	1000sqft
Movie Theater (No Matinee)	41	1000sqft
Regional Shopping Center	59	1000sqft
Regional Shopping Center	15	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

Project Characteristics -

Land Use - Proposed uses on Sites D and F2.

Construction Phase - Anticipated two-year construction schedule period for 2004 Project .

Demolition - Sites D and F footprints = 38,000 sf + 57,000 sf = 95,000 sf

Debris weight to area ration = 0.046 ton/sf (from USEPA); 95,000 sf x 0.046 tons/sf = 4,370 tons

Grading - Total footprints of Sites D and F2: 38,000 sf + 57,000 sf = 95,000 sf = 2.18 acres.

Assumes 6 ft of excavation, resulting in approximately 21,100 cy of soil excavation.

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Assumes standard BMPs such as daily watering and limiting of construction vehicle speeds.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.98	77.75	48.40	0.12	67.99	3.41	71.41	9.94	3.41	13.24	0.00	12,008.89	0.00	0.80	0.00	12,025.74
2016	33.74	36.91	37.26	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,250.45	0.00	0.50	0.00	7,260.95
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.98	77.75	48.40	0.12	64.23	3.41	67.65	3.88	3.41	7.18	0.00	12,008.89	0.00	0.80	0.00	12,025.74
2016	33.74	36.91	37.26	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,250.45	0.00	0.50	0.00	7,260.95
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.83	0.00	2.83	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92		7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	2.83	2.92	5.75	0.00	2.92	2.92		7,510.81		0.71		7,525.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.51	5.85	2.95	0.01	10.09	0.19	10.28	0.04	0.19	0.23		1,082.92		0.02		1,083.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	0.62	5.95	3.89	0.01	10.31	0.20	10.51	0.05	0.20	0.25		1,238.89		0.03		1,239.61

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.11	0.00	1.11	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92	0.00	7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	1.11	2.92	4.03	0.00	2.92	2.92	0.00	7,510.81		0.71		7,525.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.51	5.85	2.95	0.01	10.09	0.19	10.28	0.04	0.19	0.23		1,082.92		0.02		1,083.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	0.62	5.95	3.89	0.01	10.31	0.20	10.51	0.05	0.20	0.25		1,238.89		0.03		1,239.61

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.20	0.00	18.20	9.93	0.00	9.93						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29		7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	18.20	3.29	21.49	9.93	3.29	13.22		7,997.69		0.79		8,014.30

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39
Total	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.10	0.00	7.10	3.87	0.00	3.87						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29	0.00	7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	7.10	3.29	10.39	3.87	3.29	7.16	0.00	7,997.69		0.79		8,014.30

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Worker	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39
Total	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.16	0.00	6.16	3.32	0.00	3.32						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23		5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	6.16	2.23	8.39	3.32	2.23	5.55		5,240.06		0.50		5,250.58

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.13	35.73	18.02	0.06	61.60	1.18	62.78	0.22	1.18	1.40		6,612.86		0.15		6,616.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	3.24	35.83	18.96	0.06	61.82	1.19	63.01	0.23	1.19	1.42		6,768.83		0.16		6,772.22

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Fugitive Dust					2.40	0.00	2.40	1.30	0.00	1.30						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23	0.00	5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	2.40	2.23	4.63	1.30	2.23	3.53	0.00	5,240.06		0.50		5,250.58

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.13	35.73	18.02	0.06	61.60	1.18	62.78	0.22	1.18	1.40		6,612.86		0.15		6,616.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	3.24	35.83	18.96	0.06	61.82	1.19	63.01	0.23	1.19	1.42		6,768.83		0.16		6,772.22

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.71	7.82	5.03	0.01	0.52	0.24	0.75	0.04	0.24	0.28		1,522.92		0.03		1,523.64
Worker	0.81	0.77	7.08	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,174.97		0.07		1,176.42
Total	1.52	8.59	12.11	0.02	2.21	0.29	2.49	0.10	0.29	0.39		2,697.89		0.10		2,700.06

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.71	7.82	5.03	0.01	0.52	0.24	0.75	0.04	0.24	0.28		1,522.92		0.03		1,523.64
Worker	0.81	0.77	7.08	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,174.97		0.07		1,176.42
Total	1.52	8.59	12.11	0.02	2.21	0.29	2.49	0.10	0.29	0.39		2,697.89		0.10		2,700.06

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.17	4.74	0.01	0.52	0.21	0.73	0.04	0.21	0.25		1,524.02		0.03		1,524.68
Worker	0.76	0.70	6.51	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,167.08		0.07		1,168.45
Total	1.42	7.87	11.25	0.02	2.21	0.26	2.48	0.10	0.26	0.37		2,691.10		0.10		2,693.13

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.17	4.74	0.01	0.52	0.21	0.73	0.04	0.21	0.25		1,524.02		0.03		1,524.68
Worker	0.76	0.70	6.51	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,167.08		0.07		1,168.45
Total	1.42	7.87	11.25	0.02	2.21	0.26	2.48	0.10	0.26	0.37		2,691.10		0.10		2,693.13

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83
Total	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83
Total	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10
Total	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10
Total	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10

Jack London Square - 2004 Construction Emissions
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	90	1000sqft
General Office Building	134	1000sqft
Movie Theater (No Matinee)	41	1000sqft
Regional Shopping Center	59	1000sqft
Regional Shopping Center	15	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

Project Characteristics -

Land Use - Proposed uses on Sites D and F2.

Construction Phase - Anticipated two-year construction schedule period for 2004 Project .

Demolition - Sites D and F footprints = 38,000 sf + 57,000 sf = 95,000 sf

Debris weight to area ration = 0.046 ton/sf (from USEPA); 95,000 sf x 0.046 tons/sf = 4,370 tons

Grading - Total footprints of Sites D and F2: 38,000 sf + 57,000 sf = 95,000 sf = 2.18 acres.

Assumes 6 ft of excavation, resulting in approximately 21,100 cy of soil excavation.

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Assumes standard BMPs such as daily watering and limiting of construction vehicle speeds.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.87	6.27	4.91	0.01	1.41	0.32	1.72	0.16	0.32	0.48	0.00	913.76	913.76	0.07	0.00	915.16
2016	2.42	4.12	3.99	0.01	0.20	0.24	0.44	0.01	0.24	0.25	0.00	700.87	700.87	0.05	0.00	701.93
Total	3.29	10.39	8.90	0.02	1.61	0.56	2.16	0.17	0.56	0.73	0.00	1,614.63	1,614.63	0.12	0.00	1,617.09

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.87	6.27	4.91	0.01	1.22	0.32	1.54	0.07	0.32	0.39	0.00	913.76	913.76	0.07	0.00	915.16
2016	2.42	4.12	3.99	0.01	0.20	0.24	0.44	0.01	0.24	0.25	0.00	700.87	700.87	0.05	0.00	701.93
Total	3.29	10.39	8.90	0.02	1.42	0.56	1.98	0.08	0.56	0.64	0.00	1,614.63	1,614.63	0.12	0.00	1,617.09

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.05	0.00	0.05	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	1.01	0.65	0.00		0.05	0.05		0.05	0.05	0.00	112.40	112.40	0.01	0.00	112.62
Total	0.13	1.01	0.65	0.00	0.05	0.05	0.10	0.01	0.05	0.06	0.00	112.40	112.40	0.01	0.00	112.62

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.09	0.05	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	16.26	16.26	0.00	0.00	16.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.01	0.09	0.07	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	18.62	18.62	0.00	0.00	18.63

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	1.01	0.65	0.00		0.05	0.05		0.05	0.05	0.00	112.40	112.40	0.01	0.00	112.62
Total	0.13	1.01	0.65	0.00	0.02	0.05	0.07	0.00	0.05	0.05	0.00	112.40	112.40	0.01	0.00	112.62

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.09	0.05	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	16.26	16.26	0.00	0.00	16.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.01	0.09	0.07	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	18.62	18.62	0.00	0.00	18.63

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.59	0.35	0.00		0.03	0.03		0.03	0.03	0.00	61.65	61.65	0.01	0.00	61.78
Total	0.08	0.59	0.35	0.00	0.15	0.03	0.18	0.08	0.03	0.11	0.00	61.65	61.65	0.01	0.00	61.78

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.06	0.00	0.06	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.59	0.35	0.00		0.03	0.03		0.03	0.03	0.00	61.65	61.65	0.01	0.00	61.78
Total	0.08	0.59	0.35	0.00	0.06	0.03	0.09	0.03	0.03	0.06	0.00	61.65	61.65	0.01	0.00	61.78

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.10	0.00	0.10	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.69	0.49	0.00		0.04	0.04		0.04	0.04	0.00	78.41	78.41	0.01	0.00	78.57
Total	0.09	0.69	0.49	0.00	0.10	0.04	0.14	0.05	0.04	0.09	0.00	78.41	78.41	0.01	0.00	78.57

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.05	0.58	0.28	0.00	0.81	0.02	0.83	0.00	0.02	0.02	0.00	99.26	99.26	0.00	0.00	99.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.05	0.58	0.30	0.00	0.81	0.02	0.83	0.00	0.02	0.02	0.00	101.62	101.62	0.00	0.00	101.68

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.69	0.49	0.00		0.04	0.04		0.04	0.04	0.00	78.41	78.41	0.01	0.00	78.57
Total	0.09	0.69	0.49	0.00	0.04	0.04	0.08	0.02	0.04	0.06	0.00	78.41	78.41	0.01	0.00	78.57

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.05	0.58	0.28	0.00	0.81	0.02	0.83	0.00	0.02	0.02	0.00	99.26	99.26	0.00	0.00	99.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.05	0.58	0.30	0.00	0.81	0.02	0.83	0.00	0.02	0.02	0.00	101.62	101.62	0.00	0.00	101.68

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14
Total	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.06	0.68	0.41	0.00	0.04	0.02	0.06	0.00	0.02	0.02	0.00	122.10	122.10	0.00	0.00	122.16
Worker	0.06	0.06	0.62	0.00	0.12	0.00	0.12	0.01	0.00	0.01	0.00	95.01	95.01	0.01	0.00	95.12
Total	0.12	0.74	1.03	0.00	0.16	0.02	0.18	0.01	0.02	0.03	0.00	217.11	217.11	0.01	0.00	217.28

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14
Total	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.06	0.68	0.41	0.00	0.04	0.02	0.06	0.00	0.02	0.02	0.00	122.10	122.10	0.00	0.00	122.16
Worker	0.06	0.06	0.62	0.00	0.12	0.00	0.12	0.01	0.00	0.01	0.00	95.01	95.01	0.01	0.00	95.12
Total	0.12	0.74	1.03	0.00	0.16	0.02	0.18	0.01	0.02	0.03	0.00	217.11	217.11	0.01	0.00	217.28

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48
Total	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.07	0.72	0.45	0.00	0.04	0.02	0.06	0.00	0.02	0.03	0.00	141.63	141.63	0.00	0.00	141.69
Worker	0.07	0.07	0.66	0.00	0.14	0.01	0.14	0.01	0.01	0.01	0.00	109.38	109.38	0.01	0.00	109.51
Total	0.14	0.79	1.11	0.00	0.18	0.03	0.20	0.01	0.03	0.04	0.00	251.01	251.01	0.01	0.00	251.20

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48
Total	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.07	0.72	0.45	0.00	0.04	0.02	0.06	0.00	0.02	0.03	0.00	141.63	141.63	0.00	0.00	141.69
Worker	0.07	0.07	0.66	0.00	0.14	0.01	0.14	0.01	0.01	0.01	0.00	109.38	109.38	0.01	0.00	109.51
Total	0.14	0.79	1.11	0.00	0.18	0.03	0.20	0.01	0.03	0.04	0.00	251.01	251.01	0.01	0.00	251.20

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23
Total	1.79	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88
Total	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23
Total	1.79	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88
Total	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35

Jack London Square - 2013 Project Construction Emissions (Max. Residential Scenario)
Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments High Rise	200	Dwelling Unit
Apartments High Rise	466	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

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Project Characteristics -

Land Use - Site D: 200 DU on 24,000 sf footprint

Site F2: 466 DU on 57,000 sf footprint

Construction Phase - Two-year construction schedule period for 2013 Project (Max. Residential) adjusted based on CalEEMod default schedule.

Demolition - Sites D and F2 footprints = 24,000 sf + 57,000 sf = 81,000 sf

Debris weight to area ratio = 0.046 ton/sf (from USEPA)

81,000 sf x 0.046 tons/sf = 3,726 tons

Grading - Total acreage of Sites D and F2 is 1.86 acres.

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Assumes implementation of standard BMPs including daily watering and limiting speeds of construction vehicles.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.60	89.26	53.14	0.14	46.63	3.27	49.90	2.90	3.27	6.17	0.00	15,123.26	0.00	0.69	0.00	15,137.80
2016	73.25	33.47	57.95	0.12	9.28	1.90	11.18	0.37	1.90	2.27	0.00	11,472.26	0.00	0.73	0.00	11,487.68
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.60	89.26	53.14	0.14	43.78	3.27	47.04	1.39	3.27	4.65	0.00	15,123.26	0.00	0.69	0.00	15,137.80
2016	73.25	33.47	57.95	0.12	9.28	1.90	11.18	0.37	1.90	2.27	0.00	11,472.26	0.00	0.73	0.00	11,487.68
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.04	0.00	2.04	0.00	0.00	0.00						0.00
Off-Road	4.43	33.38	22.08	0.04		1.88	1.88		1.88	1.88		3,946.47		0.40		3,954.79
Total	4.43	33.38	22.08	0.04	2.04	1.88	3.92	0.00	1.88	1.88		3,946.47		0.40		3,954.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.36	4.23	1.84	0.01	8.59	0.14	8.73	0.03	0.14	0.16		784.97		0.02		785.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.88	0.00	0.19	0.01	0.20	0.01	0.01	0.01		151.82		0.01		152.00
Total	0.45	4.31	2.72	0.01	8.78	0.15	8.93	0.04	0.15	0.17		936.79		0.03		937.34

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.80	0.00	0.80	0.00	0.00	0.00					0.00
Off-Road	4.43	33.38	22.08	0.04		1.88	1.88		1.88	1.88	0.00	3,946.47		0.40	3,954.79
Total	4.43	33.38	22.08	0.04	0.80	1.88	2.68	0.00	1.88	1.88	0.00	3,946.47		0.40	3,954.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.36	4.23	1.84	0.01	8.59	0.14	8.73	0.03	0.14	0.16		784.97		0.02		785.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.88	0.00	0.19	0.01	0.20	0.01	0.01	0.01		151.82		0.01		152.00
Total	0.45	4.31	2.72	0.01	8.78	0.15	8.93	0.04	0.15	0.17		936.79		0.03		937.34

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.60	0.00	5.60	2.90	0.00	2.90						0.00
Off-Road	3.54	27.44	17.32	0.03		1.34	1.34		1.34	1.34		3,253.39		0.32		3,260.02
Total	3.54	27.44	17.32	0.03	5.60	1.34	6.94	2.90	1.34	4.24		3,253.39		0.32		3,260.02

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.54	0.00	0.12	0.00	0.12	0.00	0.00	0.01		93.43		0.01		93.54
Total	0.05	0.05	0.54	0.00	0.12	0.00	0.12	0.00	0.00	0.01		93.43		0.01		93.54

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.18	0.00	2.18	1.13	0.00	1.13						0.00
Off-Road	3.54	27.44	17.32	0.03		1.34	1.34		1.34	1.34	0.00	3,253.39		0.32		3,260.02
Total	3.54	27.44	17.32	0.03	2.18	1.34	3.52	1.13	1.34	2.47	0.00	3,253.39		0.32		3,260.02

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.54	0.00	0.12	0.00	0.12	0.00	0.00	0.01		93.43		0.01		93.54
Total	0.05	0.05	0.54	0.00	0.12	0.00	0.12	0.00	0.00	0.01		93.43		0.01		93.54

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.68	0.00	4.68	2.48	0.00	2.48						0.00
Off-Road	2.93	22.76	14.27	0.03		1.11	1.11		1.11	1.11		2,689.97		0.26		2,695.46
Total	2.93	22.76	14.27	0.03	4.68	1.11	5.79	2.48	1.11	3.59		2,689.97		0.26		2,695.46

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.61	66.45	28.97	0.12	41.83	2.15	43.99	0.42	2.15	2.57		12,339.87		0.27		12,345.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.54	0.00	0.12	0.00	0.12	0.00	0.00	0.01		93.43		0.01		93.54
Total	5.66	66.50	29.51	0.12	41.95	2.15	44.11	0.42	2.15	2.58		12,433.30		0.28		12,439.12

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.83	0.00	1.83	0.97	0.00	0.97						0.00

Off-Road	2.93	22.76	14.27	0.03		1.11	1.11		1.11	1.11	0.00	2,689.97		0.26		2,695.46
Total	2.93	22.76	14.27	0.03	1.83	1.11	2.94	0.97	1.11	2.08	0.00	2,689.97		0.26		2,695.46

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.61	66.45	28.97	0.12	41.83	2.15	43.99	0.42	2.15	2.57		12,339.87		0.27		12,345.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.05	0.05	0.54	0.00	0.12	0.00	0.12	0.00	0.00	0.01		93.43		0.01		93.54
Total	5.66	66.50	29.51	0.12	41.95	2.15	44.11	0.42	2.15	2.58		12,433.30		0.28		12,439.12

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31		2,561.58		0.34		2,568.69
Total	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31		2,561.58		0.34		2,568.69

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.83	9.99	5.12	0.02	0.65	0.29	0.95	0.05	0.29	0.34		1,947.42		0.04	1,948.26
Worker	3.22	2.97	32.42	0.06	7.19	0.21	7.41	0.27	0.21	0.48		5,605.61		0.31	5,612.19
Total	4.05	12.96	37.54	0.08	7.84	0.50	8.36	0.32	0.50	0.82		7,553.03		0.35	7,560.45

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31	0.00	2,561.58		0.34		2,568.69
Total	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31	0.00	2,561.58		0.34		2,568.69

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.83	9.99	5.12	0.02	0.65	0.29	0.95	0.05	0.29	0.34		1,947.42		0.04		1,948.26
Worker	3.22	2.97	32.42	0.06	7.19	0.21	7.41	0.27	0.21	0.48		5,605.61		0.31		5,612.19
Total	4.05	12.96	37.54	0.08	7.84	0.50	8.36	0.32	0.50	0.82		7,553.03		0.35		7,560.45

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17		2,561.58		0.31		2,568.03
Total	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17		2,561.58		0.31		2,568.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.77	9.18	4.78	0.02	0.65	0.26	0.92	0.05	0.26	0.31		1,949.02		0.04		1,949.81
Worker	3.01	2.72	29.96	0.06	7.19	0.22	7.42	0.27	0.22	0.49		5,567.06		0.30		5,573.30
Total	3.78	11.90	34.74	0.08	7.84	0.48	8.34	0.32	0.48	0.80		7,516.08		0.34		7,523.11

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17	0.00	2,561.58		0.31		2,568.03
Total	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17	0.00	2,561.58		0.31		2,568.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.77	9.18	4.78	0.02	0.65	0.26	0.92	0.05	0.26	0.31		1,949.02		0.04		1,949.81
Worker	3.01	2.72	29.96	0.06	7.19	0.22	7.42	0.27	0.22	0.49		5,567.06		0.30		5,573.30
Total	3.78	11.90	34.74	0.08	7.84	0.48	8.34	0.32	0.48	0.80		7,516.08		0.34		7,523.11

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.06					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	65.43	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.60	0.54	5.99	0.01	1.44	0.04	1.48	0.05	0.04	0.10		1,113.41		0.06		1,114.66
Total	0.60	0.54	5.99	0.01	1.44	0.04	1.48	0.05	0.04	0.10		1,113.41		0.06		1,114.66

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.06					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	65.43	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.60	0.54	5.99	0.01	1.44	0.04	1.48	0.05	0.04	0.10		1,113.41		0.06		1,114.66
Total	0.60	0.54	5.99	0.01	1.44	0.04	1.48	0.05	0.04	0.10		1,113.41		0.06		1,114.66

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23		1,712.72		0.22		1,717.32

Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23		1,712.72		0.22		1,717.32

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.07	0.81	0.00	0.19	0.01	0.20	0.01	0.01	0.01		150.77		0.01		150.94
Total	0.08	0.07	0.81	0.00	0.19	0.01	0.20	0.01	0.01	0.01		150.77		0.01		150.94

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23	0.00	1,712.72		0.22		1,717.32
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23	0.00	1,712.72		0.22		1,717.32

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.08	0.07	0.81	0.00	0.19	0.01	0.20	0.01	0.01	0.01		150.77		0.01		150.94
Total	0.08	0.07	0.81	0.00	0.19	0.01	0.20	0.01	0.01	0.01		150.77		0.01		150.94

Jack London Square - 2013 Project Construction Emissions (Max. Residential Scenario)
Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments High Rise	200	Dwelling Unit
Apartments High Rise	466	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

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Project Characteristics -

Land Use - Site D: 200 DU on 24,000 sf footprint

Site F2: 466 DU on 57,000 sf footprint

Construction Phase - Two-year construction schedule period for 2013 Project (Max. Residential) adjusted based on CalEEMod default schedule.

Demolition - Sites D and F2 footprints = 24,000 sf + 57,000 sf = 81,000 sf

Debris weight to area ratio = 0.046 ton/sf (from USEPA)

81,000 sf x 0.046 tons/sf = 3,726 tons

Grading - Total acreage of Sites D and F2 is 1.86 acres.

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Assumes implementation of standard BMPs including daily watering and limiting speeds of construction vehicles.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.81	89.11	52.05	0.14	46.63	3.30	49.93	2.90	3.30	6.20	0.00	15,043.79	0.00	0.68	0.00	15,057.98
2016	73.54	33.70	56.41	0.11	9.28	1.90	11.19	0.37	1.90	2.28	0.00	10,724.01	0.00	0.71	0.00	10,738.98
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.81	89.11	52.05	0.14	43.78	3.30	47.07	1.39	3.30	4.69	0.00	15,043.79	0.00	0.68	0.00	15,057.98
2016	73.54	33.70	56.41	0.11	9.28	1.90	11.19	0.37	1.90	2.28	0.00	10,724.01	0.00	0.71	0.00	10,738.98
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.04	0.00	2.04	0.00	0.00	0.00						0.00
Off-Road	4.43	33.38	22.08	0.04		1.88	1.88		1.88	1.88		3,946.47		0.40		3,954.79
Total	4.43	33.38	22.08	0.04	2.04	1.88	3.92	0.00	1.88	1.88		3,946.47		0.40		3,954.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.37	4.22	2.13	0.01	8.59	0.14	8.73	0.03	0.14	0.17		780.57		0.02		780.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	0.81	0.00	0.19	0.01	0.20	0.01	0.01	0.01		135.17		0.01		135.34
Total	0.46	4.31	2.94	0.01	8.78	0.15	8.93	0.04	0.15	0.18		915.74		0.03		916.29

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.80	0.00	0.80	0.00	0.00	0.00					0.00
Off-Road	4.43	33.38	22.08	0.04		1.88	1.88		1.88	1.88	0.00	3,946.47		0.40	3,954.79
Total	4.43	33.38	22.08	0.04	0.80	1.88	2.68	0.00	1.88	1.88	0.00	3,946.47		0.40	3,954.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.37	4.22	2.13	0.01	8.59	0.14	8.73	0.03	0.14	0.17		780.57		0.02		780.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	0.81	0.00	0.19	0.01	0.20	0.01	0.01	0.01		135.17		0.01		135.34
Total	0.46	4.31	2.94	0.01	8.78	0.15	8.93	0.04	0.15	0.18		915.74		0.03		916.29

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.60	0.00	5.60	2.90	0.00	2.90						0.00
Off-Road	3.54	27.44	17.32	0.03		1.34	1.34		1.34	1.34		3,253.39		0.32		3,260.02
Total	3.54	27.44	17.32	0.03	5.60	1.34	6.94	2.90	1.34	4.24		3,253.39		0.32		3,260.02

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.50	0.00	0.12	0.00	0.12	0.00	0.00	0.01		83.18		0.00		83.29
Total	0.06	0.05	0.50	0.00	0.12	0.00	0.12	0.00	0.00	0.01		83.18		0.00		83.29

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.18	0.00	2.18	1.13	0.00	1.13						0.00
Off-Road	3.54	27.44	17.32	0.03		1.34	1.34		1.34	1.34	0.00	3,253.39		0.32		3,260.02
Total	3.54	27.44	17.32	0.03	2.18	1.34	3.52	1.13	1.34	2.47	0.00	3,253.39		0.32		3,260.02

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.50	0.00	0.12	0.00	0.12	0.00	0.00	0.01		83.18		0.00		83.29
Total	0.06	0.05	0.50	0.00	0.12	0.00	0.12	0.00	0.00	0.01		83.18		0.00		83.29

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.68	0.00	4.68	2.48	0.00	2.48						0.00
Off-Road	2.93	22.76	14.27	0.03		1.11	1.11		1.11	1.11		2,689.97		0.26		2,695.46
Total	2.93	22.76	14.27	0.03	4.68	1.11	5.79	2.48	1.11	3.59		2,689.97		0.26		2,695.46

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.82	66.30	33.44	0.12	41.83	2.18	44.02	0.42	2.18	2.60		12,270.64		0.28		12,276.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.50	0.00	0.12	0.00	0.12	0.00	0.00	0.01		83.18		0.00		83.29
Total	5.88	66.35	33.94	0.12	41.95	2.18	44.14	0.42	2.18	2.61		12,353.82		0.28		12,359.86

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.83	0.00	1.83	0.97	0.00	0.97						0.00

Off-Road	2.93	22.76	14.27	0.03		1.11	1.11		1.11	1.11	0.00	2,689.97		0.26		2,695.46
Total	2.93	22.76	14.27	0.03	1.83	1.11	2.94	0.97	1.11	2.08	0.00	2,689.97		0.26		2,695.46

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.82	66.30	33.44	0.12	41.83	2.18	44.02	0.42	2.18	2.60		12,270.64		0.28		12,276.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.06	0.05	0.50	0.00	0.12	0.00	0.12	0.00	0.00	0.01		83.18		0.00		83.29
Total	5.88	66.35	33.94	0.12	41.95	2.18	44.14	0.42	2.18	2.61		12,353.82		0.28		12,359.86

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31		2,561.58		0.34		2,568.69
Total	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31		2,561.58		0.34		2,568.69

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.90	9.91	6.38	0.02	0.65	0.30	0.95	0.05	0.30	0.35		1,930.85		0.04	1,931.76
Worker	3.43	3.27	30.07	0.05	7.19	0.21	7.41	0.27	0.21	0.48		4,991.01		0.29	4,997.18
Total	4.33	13.18	36.45	0.07	7.84	0.51	8.36	0.32	0.51	0.83		6,921.86		0.33	6,928.94

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31	0.00	2,561.58		0.34		2,568.69
Total	3.78	20.14	15.61	0.03		1.31	1.31		1.31	1.31	0.00	2,561.58		0.34		2,568.69

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.90	9.91	6.38	0.02	0.65	0.30	0.95	0.05	0.30	0.35		1,930.85		0.04		1,931.76
Worker	3.43	3.27	30.07	0.05	7.19	0.21	7.41	0.27	0.21	0.48		4,991.01		0.29		4,997.18
Total	4.33	13.18	36.45	0.07	7.84	0.51	8.36	0.32	0.51	0.83		6,921.86		0.33		6,928.94

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17		2,561.58		0.31		2,568.03
Total	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17		2,561.58		0.31		2,568.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.83	9.09	6.01	0.02	0.65	0.27	0.92	0.05	0.27	0.32		1,932.23		0.04		1,933.08
Worker	3.21	2.98	27.65	0.05	7.19	0.22	7.42	0.27	0.22	0.49		4,957.51		0.28		4,963.33
Total	4.04	12.07	33.66	0.07	7.84	0.49	8.34	0.32	0.49	0.81		6,889.74		0.32		6,896.41

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17	0.00	2,561.58		0.31		2,568.03
Total	3.43	18.67	15.34	0.03		1.17	1.17		1.17	1.17	0.00	2,561.58		0.31		2,568.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.83	9.09	6.01	0.02	0.65	0.27	0.92	0.05	0.27	0.32		1,932.23		0.04		1,933.08
Worker	3.21	2.98	27.65	0.05	7.19	0.22	7.42	0.27	0.22	0.49		4,957.51		0.28		4,963.33
Total	4.04	12.07	33.66	0.07	7.84	0.49	8.34	0.32	0.49	0.81		6,889.74		0.32		6,896.41

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.06					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	65.43	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.64	0.60	5.53	0.01	1.44	0.04	1.48	0.05	0.04	0.10		991.50		0.06		992.67
Total	0.64	0.60	5.53	0.01	1.44	0.04	1.48	0.05	0.04	0.10		991.50		0.06		992.67

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.06					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	65.43	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.64	0.60	5.53	0.01	1.44	0.04	1.48	0.05	0.04	0.10		991.50		0.06		992.67
Total	0.64	0.60	5.53	0.01	1.44	0.04	1.48	0.05	0.04	0.10		991.50		0.06		992.67

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23		1,712.72		0.22		1,717.32

Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23		1,712.72		0.22		1,717.32

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.75	0.00	0.19	0.01	0.20	0.01	0.01	0.01		134.27		0.01		134.42
Total	0.09	0.08	0.75	0.00	0.19	0.01	0.20	0.01	0.01	0.01		134.27		0.01		134.42

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23	0.00	1,712.72		0.22		1,717.32
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	2.44	15.28	11.80	0.02		1.23	1.23		1.23	1.23	0.00	1,712.72		0.22		1,717.32

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.75	0.00	0.19	0.01	0.20	0.01	0.01	0.01		134.27		0.01		134.42
Total	0.09	0.08	0.75	0.00	0.19	0.01	0.20	0.01	0.01	0.01		134.27		0.01		134.42

Jack London Square - 2013 Project Construction Emissions (Max. Residential Scenario)
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Apartments High Rise	200	Dwelling Unit
Apartments High Rise	466	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

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Project Characteristics -

Land Use - Site D: 200 DU on 24,000 sf footprint

Site F2: 466 DU on 57,000 sf footprint

Construction Phase - Two-year construction schedule period for 2013 Project (Max. Residential) adjusted based on CalEEMod default schedule.

Demolition - Sites D and F2 footprints = 24,000 sf + 57,000 sf = 81,000 sf

Debris weight to area ratio = 0.046 ton/sf (from USEPA)

81,000 sf x 0.046 tons/sf = 3,726 tons

Grading - Total acreage of Sites D and F2 is 1.86 acres.

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Assumes implementation of standard BMPs including daily watering and limiting speeds of construction vehicles.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.94	4.67	6.02	0.01	1.06	0.25	1.30	0.07	0.25	0.31	0.00	1,052.72	1,052.72	0.07	0.00	1,054.26
2016	5.59	3.86	6.23	0.01	0.81	0.22	1.03	0.04	0.22	0.26	0.00	1,094.19	1,094.19	0.07	0.00	1,095.72
Total	6.53	8.53	12.25	0.02	1.87	0.47	2.33	0.11	0.47	0.57	0.00	2,146.91	2,146.91	0.14	0.00	2,149.98

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.94	4.67	6.02	0.01	1.00	0.25	1.25	0.05	0.25	0.29	0.00	1,052.72	1,052.72	0.07	0.00	1,054.26
2016	5.59	3.86	6.23	0.01	0.81	0.22	1.03	0.04	0.22	0.26	0.00	1,094.19	1,094.19	0.07	0.00	1,095.72
Total	6.53	8.53	12.25	0.02	1.81	0.47	2.28	0.09	0.47	0.55	0.00	2,146.91	2,146.91	0.14	0.00	2,149.98

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.65	0.43	0.00		0.04	0.04		0.04	0.04	0.00	69.79	69.79	0.01	0.00	69.94
Total	0.09	0.65	0.43	0.00	0.04	0.04	0.08	0.01	0.04	0.05	0.00	69.79	69.79	0.01	0.00	69.94

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.04	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	13.85	13.85	0.00	0.00	13.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42	2.42	0.00	0.00	2.42
Total	0.01	0.08	0.06	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	16.27	16.27	0.00	0.00	16.27

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.65	0.43	0.00		0.04	0.04		0.04	0.04	0.00	69.79	69.79	0.01	0.00	69.94
Total	0.09	0.65	0.43	0.00	0.02	0.04	0.06	0.00	0.04	0.04	0.00	69.79	69.79	0.01	0.00	69.94

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.04	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	13.85	13.85	0.00	0.00	13.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42	2.42	0.00	0.00	2.42
Total	0.01	0.08	0.06	0.00	0.13	0.00	0.14	0.00	0.00	0.00	0.00	16.27	16.27	0.00	0.00	16.27

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.08	0.05	0.00		0.00	0.00		0.00	0.00	0.00	8.85	8.85	0.00	0.00	8.87
Total	0.01	0.08	0.05	0.00	0.02	0.00	0.02	0.01	0.00	0.01	0.00	8.85	8.85	0.00	0.00	8.87

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.23
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.23

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.08	0.05	0.00		0.00	0.00		0.00	0.00	0.00	8.85	8.85	0.00	0.00	8.87
Total	0.01	0.08	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.85	8.85	0.00	0.00	8.87

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.23
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.00	0.00	0.23

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.03	0.00	0.03	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.14	0.09	0.00		0.01	0.01		0.01	0.01	0.00	14.64	14.64	0.00	0.00	14.67
Total	0.02	0.14	0.09	0.00	0.03	0.01	0.04	0.02	0.01	0.03	0.00	14.64	14.64	0.00	0.00	14.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.39	0.19	0.00	0.20	0.01	0.21	0.00	0.01	0.02	0.00	66.98	66.98	0.00	0.00	67.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.00	0.00	0.46
Total	0.03	0.39	0.19	0.00	0.20	0.01	0.21	0.00	0.01	0.02	0.00	67.44	67.44	0.00	0.00	67.47

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.02	0.14	0.09	0.00		0.01	0.01		0.01	0.01	0.00	14.64	14.64	0.00	0.00	14.67
Total	0.02	0.14	0.09	0.00	0.01	0.01	0.02	0.01	0.01	0.02	0.00	14.64	14.64	0.00	0.00	14.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.03	0.39	0.19	0.00	0.20	0.01	0.21	0.00	0.01	0.02	0.00	66.98	66.98	0.00	0.00	67.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.00	0.00	0.46
Total	0.03	0.39	0.19	0.00	0.20	0.01	0.21	0.00	0.01	0.02	0.00	67.44	67.44	0.00	0.00	67.47

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.38	2.03	1.58	0.00		0.13	0.13		0.13	0.13	0.00	234.64	234.64	0.03	0.00	235.29
Total	0.38	2.03	1.58	0.00		0.13	0.13		0.13	0.13	0.00	234.64	234.64	0.03	0.00	235.29

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.09	0.99	0.60	0.00	0.05	0.03	0.08	0.01	0.03	0.03	0.00	177.67	177.67	0.00	0.00	177.76
Worker	0.31	0.31	3.02	0.01	0.58	0.02	0.60	0.03	0.02	0.05	0.00	463.18	463.18	0.03	0.00	463.75
Total	0.40	1.30	3.62	0.01	0.63	0.05	0.68	0.04	0.05	0.08	0.00	640.85	640.85	0.03	0.00	641.51

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.38	2.03	1.58	0.00		0.13	0.13		0.13	0.13	0.00	234.64	234.64	0.03	0.00	235.29
Total	0.38	2.03	1.58	0.00		0.13	0.13		0.13	0.13	0.00	234.64	234.64	0.03	0.00	235.29

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.09	0.99	0.60	0.00	0.05	0.03	0.08	0.01	0.03	0.03	0.00	177.67	177.67	0.00	0.00	177.76
Worker	0.31	0.31	3.02	0.01	0.58	0.02	0.60	0.03	0.02	0.05	0.00	463.18	463.18	0.03	0.00	463.75
Total	0.40	1.30	3.62	0.01	0.63	0.05	0.68	0.04	0.05	0.08	0.00	640.85	640.85	0.03	0.00	641.51

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	2.15	1.76	0.00		0.13	0.13		0.13	0.13	0.00	267.17	267.17	0.03	0.00	267.84
Total	0.39	2.15	1.76	0.00		0.13	0.13		0.13	0.13	0.00	267.17	267.17	0.03	0.00	267.84

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.09	1.03	0.64	0.00	0.06	0.03	0.09	0.01	0.03	0.04	0.00	202.46	202.46	0.00	0.00	202.54
Worker	0.33	0.32	3.17	0.01	0.66	0.03	0.69	0.03	0.03	0.06	0.00	523.84	523.84	0.03	0.00	524.45
Total	0.42	1.35	3.81	0.01	0.72	0.06	0.78	0.04	0.06	0.10	0.00	726.30	726.30	0.03	0.00	726.99

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	2.15	1.76	0.00		0.13	0.13		0.13	0.13	0.00	267.17	267.17	0.03	0.00	267.84
Total	0.39	2.15	1.76	0.00		0.13	0.13		0.13	0.13	0.00	267.17	267.17	0.03	0.00	267.84

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.09	1.03	0.64	0.00	0.06	0.03	0.09	0.01	0.03	0.04	0.00	202.46	202.46	0.00	0.00	202.54
Worker	0.33	0.32	3.17	0.01	0.66	0.03	0.69	0.03	0.03	0.06	0.00	523.84	523.84	0.03	0.00	524.45
Total	0.42	1.35	3.81	0.01	0.72	0.06	0.78	0.04	0.06	0.10	0.00	726.30	726.30	0.03	0.00	726.99

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.68					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.17	0.14	0.00		0.01	0.01		0.01	0.01	0.00	18.36	18.36	0.00	0.00	18.41
Total	4.71	0.17	0.14	0.00		0.01	0.01		0.01	0.01	0.00	18.36	18.36	0.00	0.00	18.41

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.04	0.04	0.40	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.00	65.59	65.59	0.00	0.00	65.67
Total	0.04	0.04	0.40	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.00	65.59	65.59	0.00	0.00	65.67

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.68					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.17	0.14	0.00		0.01	0.01		0.01	0.01	0.00	18.36	18.36	0.00	0.00	18.41
Total	4.71	0.17	0.14	0.00		0.01	0.01		0.01	0.01	0.00	18.36	18.36	0.00	0.00	18.41

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.04	0.04	0.40	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.00	65.59	65.59	0.00	0.00	65.67
Total	0.04	0.04	0.40	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.00	65.59	65.59	0.00	0.00	65.67

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.53	15.53	0.00	0.00	15.58

Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.53	15.53	0.00	0.00	15.58

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.23	0.00	0.00	1.24
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.23	0.00	0.00	1.24

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.53	15.53	0.00	0.00	15.58
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	15.53	15.53	0.00	0.00	15.58

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.23	0.00	0.00	1.24
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.23	0.00	0.00	1.24

Jack London Square - 2013 Construction Emissions (Max. Commercial Scenario)
Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	90	1000sqft
General Office Building	134	1000sqft
Movie Theater (No Matinee)	41	1000sqft
Regional Shopping Center	59	1000sqft
Regional Shopping Center	15	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

Project Characteristics -

Land Use - Proposed uses on Sites D and F2.

Construction Phase - Two-year construction schedule period for 2013 Project (Max. Commercial) adjusted based on CalEEMod default schedule.

Demolition - Sites D and F footprints = 24,000 sf + 57,000 sf = 81,000 sf

Debris weight to area ration = 0.046 ton/sf (from USEPA); 81,000 sf x 0.046 tons/sf = 3,726 tons

Grading - Assumes 6 ft of excavation at Sites D and F: (57,000 sf + 24,000 sf) x 6 ft = 486,000 cubic feet = 18,000 cubic yards

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Anticipates implementation of standard BMPs including daily watering and limiting speeds of construction vehicles.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.97	72.56	43.77	0.11	58.91	3.30	62.14	9.94	3.30	13.24	0.00	11,087.29	0.00	0.80	0.00	11,104.15
2016	33.63	36.90	36.94	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,436.40	0.00	0.50	0.00	7,446.97
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.97	72.56	43.77	0.11	55.16	3.30	58.39	3.88	3.30	7.18	0.00	11,087.29	0.00	0.80	0.00	11,104.15
2016	33.63	36.90	36.94	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,436.40	0.00	0.50	0.00	7,446.97
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.42	0.00	2.42	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92		7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	2.42	2.92	5.34	0.00	2.92	2.92		7,510.81		0.71		7,525.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.42	5.00	2.18	0.01	8.59	0.16	8.76	0.03	0.16	0.19		927.70		0.02		928.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	0.52	5.09	3.19	0.01	8.81	0.17	8.99	0.04	0.17	0.21		1,102.88		0.03		1,103.50

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.94	0.00	0.94	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92	0.00	7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	0.94	2.92	3.86	0.00	2.92	2.92	0.00	7,510.81		0.71		7,525.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.42	5.00	2.18	0.01	8.59	0.16	8.76	0.03	0.16	0.19		927.70		0.02		928.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	0.52	5.09	3.19	0.01	8.81	0.17	8.99	0.04	0.17	0.21		1,102.88		0.03		1,103.50

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.18	0.00	18.18	9.93	0.00	9.93						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29		7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	18.18	3.29	21.47	9.93	3.29	13.22		7,997.69		0.79		8,014.30

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46
Total	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.09	0.00	7.09	3.87	0.00	3.87						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29	0.00	7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	7.09	3.29	10.38	3.87	3.29	7.16	0.00	7,997.69		0.79		8,014.30

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Worker	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46
Total	0.12	0.11	1.22	0.00	0.27	0.01	0.28	0.01	0.01	0.02		210.21		0.01		210.46

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.14	0.00	6.14	3.32	0.00	3.32						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23		5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	6.14	2.23	8.37	3.32	2.23	5.55		5,240.06		0.50		5,250.58

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.58	30.55	13.32	0.05	52.54	0.99	53.53	0.19	0.99	1.18		5,672.05		0.12		5,674.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	2.68	30.64	14.33	0.05	52.76	1.00	53.76	0.20	1.00	1.20		5,847.23		0.13		5,850.06

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Fugitive Dust					2.40	0.00	2.40	1.29	0.00	1.29						0.00
Off-Road	5.59	41.92	29.44	0.05			2.23	2.23		2.23	2.23	0.00	5,240.06		0.50	5,250.58
Total	5.59	41.92	29.44	0.05	2.40		2.23	4.63	1.29	2.23	3.52	0.00	5,240.06		0.50	5,250.58

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.58	30.55	13.32	0.05	52.54	0.99	53.53	0.19	0.99	1.18		5,672.05		0.12		5,674.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	1.01	0.00	0.22	0.01	0.23	0.01	0.01	0.02		175.18		0.01		175.38
Total	2.68	30.64	14.33	0.05	52.76	1.00	53.76	0.20	1.00	1.20		5,847.23		0.13		5,850.06

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.88	4.03	0.01	0.52	0.23	0.75	0.04	0.23	0.27		1,535.99		0.03		1,536.66
Worker	0.76	0.70	7.63	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,319.65		0.07		1,321.20
Total	1.42	8.58	11.66	0.02	2.21	0.28	2.49	0.10	0.28	0.38		2,855.64		0.10		2,857.86

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.88	4.03	0.01	0.52	0.23	0.75	0.04	0.23	0.27		1,535.99		0.03		1,536.66
Worker	0.76	0.70	7.63	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,319.65		0.07		1,321.20
Total	1.42	8.58	11.66	0.02	2.21	0.28	2.49	0.10	0.28	0.38		2,855.64		0.10		2,857.86

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.61	7.24	3.77	0.01	0.52	0.21	0.72	0.04	0.21	0.25		1,537.26		0.03		1,537.87
Worker	0.71	0.64	7.05	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,310.58		0.07		1,312.05
Total	1.32	7.88	10.82	0.02	2.21	0.26	2.47	0.10	0.26	0.37		2,847.84		0.10		2,849.92

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.61	7.24	3.77	0.01	0.52	0.21	0.72	0.04	0.21	0.25		1,537.26		0.03		1,537.87
Worker	0.71	0.64	7.05	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,310.58		0.07		1,312.05
Total	1.32	7.88	10.82	0.02	2.21	0.26	2.47	0.10	0.26	0.37		2,847.84		0.10		2,849.92

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01		267.05
Total	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01		267.05

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01		267.05
Total	0.14	0.13	1.44	0.00	0.34	0.01	0.36	0.01	0.01	0.02		266.76		0.01		267.05

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17
Total	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17
Total	0.09	0.08	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		173.97		0.01		174.17

Jack London Square - 2013 Construction Emissions (Max. Commercial Scenario)
Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	90	1000sqft
General Office Building	134	1000sqft
Movie Theater (No Matinee)	41	1000sqft
Regional Shopping Center	59	1000sqft
Regional Shopping Center	15	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

Project Characteristics -

Land Use - Proposed uses on Sites D and F2.

Construction Phase - Two-year construction schedule period for 2013 Project (Max. Commercial) adjusted based on CalEEMod default schedule.

Demolition - Sites D and F footprints = 24,000 sf + 57,000 sf = 81,000 sf

Debris weight to area ration = 0.046 ton/sf (from USEPA); 81,000 sf x 0.046 tons/sf = 3,726 tons

Grading - Assumes 6 ft of excavation at Sites D and F: (57,000 sf + 24,000 sf) x 6 ft = 486,000 cubic feet = 18,000 cubic yards

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Anticipates implementation of standard BMPs including daily watering and limiting speeds of construction vehicles.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.98	72.50	45.75	0.11	58.91	3.30	62.15	9.94	3.30	13.24	0.00	11,036.27	0.00	0.80	0.00	11,053.11
2016	33.74	36.91	37.26	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,250.45	0.00	0.50	0.00	7,260.95
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.98	72.50	45.75	0.11	55.16	3.30	58.40	3.88	3.30	7.18	0.00	11,036.27	0.00	0.80	0.00	11,053.11
2016	33.74	36.91	37.26	0.08	2.55	2.57	4.61	0.12	2.57	2.59	0.00	7,250.45	0.00	0.50	0.00	7,260.95
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.42	0.00	2.42	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92		7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	2.42	2.92	5.34	0.00	2.92	2.92		7,510.81		0.71		7,525.67

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.44	4.98	2.51	0.01	8.59	0.16	8.76	0.03	0.16	0.20		922.49		0.02		922.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	0.55	5.08	3.45	0.01	8.81	0.17	8.99	0.04	0.17	0.22		1,078.46		0.03		1,079.10

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.94	0.00	0.94	0.00	0.00	0.00						0.00
Off-Road	7.90	60.98	39.63	0.07		2.92	2.92		2.92	2.92	0.00	7,510.81		0.71		7,525.67
Total	7.90	60.98	39.63	0.07	0.94	2.92	3.86	0.00	2.92	2.92	0.00	7,510.81		0.71		7,525.67

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.44	4.98	2.51	0.01	8.59	0.16	8.76	0.03	0.16	0.20		922.49		0.02		922.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	0.55	5.08	3.45	0.01	8.81	0.17	8.99	0.04	0.17	0.22		1,078.46		0.03		1,079.10

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.18	0.00	18.18	9.93	0.00	9.93						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29		7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	18.18	3.29	21.47	9.93	3.29	13.22		7,997.69		0.79		8,014.30

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39
Total	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.09	0.00	7.09	3.87	0.00	3.87						0.00
Off-Road	8.85	69.73	40.95	0.07		3.29	3.29		3.29	3.29	0.00	7,997.69		0.79		8,014.30
Total	8.85	69.73	40.95	0.07	7.09	3.29	10.38	3.87	3.29	7.16	0.00	7,997.69		0.79		8,014.30

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Worker	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39
Total	0.13	0.12	1.13	0.00	0.27	0.01	0.28	0.01	0.01	0.02		187.16		0.01		187.39

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.14	0.00	6.14	3.32	0.00	3.32						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23		5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	6.14	2.23	8.37	3.32	2.23	5.55		5,240.06		0.50		5,250.58

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.67	30.47	15.37	0.05	52.54	1.00	53.55	0.19	1.00	1.20		5,640.23		0.13		5,642.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	2.78	30.57	16.31	0.05	52.76	1.01	53.78	0.20	1.01	1.22		5,796.20		0.14		5,799.12

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Fugitive Dust					2.40	0.00	2.40	1.29	0.00	1.29						0.00
Off-Road	5.59	41.92	29.44	0.05		2.23	2.23		2.23	2.23	0.00	5,240.06		0.50		5,250.58
Total	5.59	41.92	29.44	0.05	2.40	2.23	4.63	1.29	2.23	3.52	0.00	5,240.06		0.50		5,250.58

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.67	30.47	15.37	0.05	52.54	1.00	53.55	0.19	1.00	1.20		5,640.23		0.13		5,642.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.10	0.94	0.00	0.22	0.01	0.23	0.01	0.01	0.02		155.97		0.01		156.16
Total	2.78	30.57	16.31	0.05	52.76	1.01	53.78	0.20	1.01	1.22		5,796.20		0.14		5,799.12

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.71	7.82	5.03	0.01	0.52	0.24	0.75	0.04	0.24	0.28		1,522.92		0.03		1,523.64
Worker	0.81	0.77	7.08	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,174.97		0.07		1,176.42
Total	1.52	8.59	12.11	0.02	2.21	0.29	2.49	0.10	0.29	0.39		2,697.89		0.10		2,700.06

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.71	7.82	5.03	0.01	0.52	0.24	0.75	0.04	0.24	0.28		1,522.92		0.03		1,523.64
Worker	0.81	0.77	7.08	0.01	1.69	0.05	1.74	0.06	0.05	0.11		1,174.97		0.07		1,176.42
Total	1.52	8.59	12.11	0.02	2.21	0.29	2.49	0.10	0.29	0.39		2,697.89		0.10		2,700.06

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58		4,040.61		0.36		4,048.10

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.17	4.74	0.01	0.52	0.21	0.73	0.04	0.21	0.25		1,524.02		0.03		1,524.68
Worker	0.76	0.70	6.51	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,167.08		0.07		1,168.45
Total	1.42	7.87	11.25	0.02	2.21	0.26	2.48	0.10	0.26	0.37		2,691.10		0.10		2,693.13

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10
Total	3.99	26.52	22.80	0.04		1.58	1.58		1.58	1.58	0.00	4,040.61		0.36		4,048.10

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.66	7.17	4.74	0.01	0.52	0.21	0.73	0.04	0.21	0.25		1,524.02		0.03		1,524.68
Worker	0.76	0.70	6.51	0.01	1.69	0.05	1.75	0.06	0.05	0.12		1,167.08		0.07		1,168.45
Total	1.42	7.87	11.25	0.02	2.21	0.26	2.48	0.10	0.26	0.37		2,691.10		0.10		2,693.13

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83
Total	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.81					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	28.18	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83
Total	0.15	0.14	1.32	0.00	0.34	0.01	0.36	0.01	0.01	0.02		237.55		0.01		237.83

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35		2,917.64		0.41		2,926.29

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10
Total	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.58	28.21	20.38	0.03		2.35	2.35		2.35	2.35	0.00	2,917.64		0.41		2,926.29

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10
Total	0.10	0.09	0.86	0.00	0.22	0.01	0.23	0.01	0.01	0.02		154.92		0.01		155.10

Jack London Square - 2013 Construction Emissions (Max. Commercial Scenario)
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	90	1000sqft
General Office Building	134	1000sqft
Movie Theater (No Matinee)	41	1000sqft
Regional Shopping Center	59	1000sqft
Regional Shopping Center	15	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	Utility Company
Climate Zone	5	2.2	
		Precipitation Freq (Days)	

1.3 User Entered Comments

Project Characteristics -

Land Use - Proposed uses on Sites D and F2.

Construction Phase - Two-year construction schedule period for 2013 Project (Max. Commercial) adjusted based on CalEEMod default schedule.

Demolition - Sites D and F footprints = 24,000 sf + 57,000 sf = 81,000 sf

Debris weight to area ration = 0.046 ton/sf (from USEPA); 81,000 sf x 0.046 tons/sf = 3,726 tons

Grading - Assumes 6 ft of excavation at Sites D and F: (57,000 sf + 24,000 sf) x 6 ft = 486,000 cubic feet = 18,000 cubic yards

Architectural Coating - VOC limit of 150 g/L for non-flat glossy coats effective beginning January 1, 2011 under BAAQMD Rule 3 (architectural coatings). No coatings anticipated for exterior area.

Construction Off-road Equipment Mitigation - Anticipates implementation of standard BMPs including daily watering and limiting speeds of construction vehicles.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.86	6.17	4.86	0.01	1.26	0.32	1.58	0.16	0.32	0.47	0.00	896.76	896.76	0.07	0.00	898.14
2016	2.42	4.12	3.99	0.01	0.20	0.24	0.44	0.01	0.24	0.25	0.00	700.87	700.87	0.05	0.00	701.93
Total	3.28	10.29	8.85	0.02	1.46	0.56	2.02	0.17	0.56	0.72	0.00	1,597.63	1,597.63	0.12	0.00	1,600.07

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.86	6.17	4.86	0.01	1.08	0.32	1.39	0.07	0.32	0.39	0.00	896.76	896.76	0.07	0.00	898.14
2016	2.42	4.12	3.99	0.01	0.20	0.24	0.44	0.01	0.24	0.25	0.00	700.87	700.87	0.05	0.00	701.93
Total	3.28	10.29	8.85	0.02	1.28	0.56	1.83	0.08	0.56	0.64	0.00	1,597.63	1,597.63	0.12	0.00	1,600.07

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	1.01	0.65	0.00		0.05	0.05		0.05	0.05	0.00	112.40	112.40	0.01	0.00	112.62
Total	0.13	1.01	0.65	0.00	0.04	0.05	0.09	0.01	0.05	0.06	0.00	112.40	112.40	0.01	0.00	112.62

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.04	0.00	0.11	0.00	0.12	0.00	0.00	0.00	0.00	13.85	13.85	0.00	0.00	13.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.01	0.08	0.06	0.00	0.11	0.00	0.12	0.00	0.00	0.00	0.00	16.21	16.21	0.00	0.00	16.22

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.13	1.01	0.65	0.00		0.05	0.05		0.05	0.05	0.00	112.40	112.40	0.01	0.00	112.62
Total	0.13	1.01	0.65	0.00	0.02	0.05	0.07	0.00	0.05	0.05	0.00	112.40	112.40	0.01	0.00	112.62

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.01	0.08	0.04	0.00	0.11	0.00	0.12	0.00	0.00	0.00	0.00	13.85	13.85	0.00	0.00	13.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.01	0.08	0.06	0.00	0.11	0.00	0.12	0.00	0.00	0.00	0.00	16.21	16.21	0.00	0.00	16.22

3.3 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.59	0.35	0.00		0.03	0.03		0.03	0.03	0.00	61.65	61.65	0.01	0.00	61.78
Total	0.08	0.59	0.35	0.00	0.15	0.03	0.18	0.08	0.03	0.11	0.00	61.65	61.65	0.01	0.00	61.78

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.06	0.00	0.06	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.08	0.59	0.35	0.00		0.03	0.03		0.03	0.03	0.00	61.65	61.65	0.01	0.00	61.78
Total	0.08	0.59	0.35	0.00	0.06	0.03	0.09	0.03	0.03	0.06	0.00	61.65	61.65	0.01	0.00	61.78

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	1.46	0.00	0.00	1.46

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.10	0.00	0.10	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.69	0.49	0.00		0.04	0.04		0.04	0.04	0.00	78.41	78.41	0.01	0.00	78.57
Total	0.09	0.69	0.49	0.00	0.10	0.04	0.14	0.05	0.04	0.09	0.00	78.41	78.41	0.01	0.00	78.57

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.04	0.49	0.24	0.00	0.69	0.02	0.70	0.00	0.02	0.02	0.00	84.66	84.66	0.00	0.00	84.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.04	0.49	0.26	0.00	0.69	0.02	0.70	0.00	0.02	0.02	0.00	87.02	87.02	0.00	0.00	87.07

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Fugitive Dust					0.04	0.00	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.69	0.49	0.00		0.04	0.04		0.04	0.04	0.00	78.41	78.41	0.01	0.00	78.57
Total	0.09	0.69	0.49	0.00	0.04	0.04	0.08	0.02	0.04	0.06	0.00	78.41	78.41	0.01	0.00	78.57

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.04	0.49	0.24	0.00	0.69	0.02	0.70	0.00	0.02	0.02	0.00	84.66	84.66	0.00	0.00	84.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.36	2.36	0.00	0.00	2.37
Total	0.04	0.49	0.26	0.00	0.69	0.02	0.70	0.00	0.02	0.02	0.00	87.02	87.02	0.00	0.00	87.07

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14
Total	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.06	0.68	0.41	0.00	0.04	0.02	0.06	0.00	0.02	0.02	0.00	122.10	122.10	0.00	0.00	122.16
Worker	0.06	0.06	0.62	0.00	0.12	0.00	0.12	0.01	0.00	0.01	0.00	95.01	95.01	0.01	0.00	95.12
Total	0.12	0.74	1.03	0.00	0.16	0.02	0.18	0.01	0.02	0.03	0.00	217.11	217.11	0.01	0.00	217.28

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14
Total	0.38	2.56	2.02	0.00		0.16	0.16		0.16	0.16	0.00	322.48	322.48	0.03	0.00	323.14

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.06	0.68	0.41	0.00	0.04	0.02	0.06	0.00	0.02	0.02	0.00	122.10	122.10	0.00	0.00	122.16
Worker	0.06	0.06	0.62	0.00	0.12	0.00	0.12	0.01	0.00	0.01	0.00	95.01	95.01	0.01	0.00	95.12
Total	0.12	0.74	1.03	0.00	0.16	0.02	0.18	0.01	0.02	0.03	0.00	217.11	217.11	0.01	0.00	217.28

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48
Total	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.07	0.72	0.45	0.00	0.04	0.02	0.06	0.00	0.02	0.03	0.00	141.63	141.63	0.00	0.00	141.69
Worker	0.07	0.07	0.66	0.00	0.14	0.01	0.14	0.01	0.01	0.01	0.00	109.38	109.38	0.01	0.00	109.51
Total	0.14	0.79	1.11	0.00	0.18	0.03	0.20	0.01	0.03	0.04	0.00	251.01	251.01	0.01	0.00	251.20

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48
Total	0.41	2.70	2.33	0.00		0.16	0.16		0.16	0.16	0.00	373.79	373.79	0.03	0.00	374.48

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.07	0.72	0.45	0.00	0.04	0.02	0.06	0.00	0.02	0.03	0.00	141.63	141.63	0.00	0.00	141.69
Worker	0.07	0.07	0.66	0.00	0.14	0.01	0.14	0.01	0.01	0.01	0.00	109.38	109.38	0.01	0.00	109.51
Total	0.14	0.79	1.11	0.00	0.18	0.03	0.20	0.01	0.03	0.04	0.00	251.01	251.01	0.01	0.00	251.20

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23
Total	1.79	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88
Total	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.77					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23
Total	1.79	0.15	0.12	0.00		0.01	0.01		0.01	0.01	0.00	16.19	16.19	0.00	0.00	16.23

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88
Total	0.01	0.01	0.08	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.86	13.86	0.00	0.00	13.88

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.08	0.47	0.34	0.00		0.04	0.04		0.04	0.04	0.00	43.66	43.66	0.01	0.00	43.79

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	0.00	0.00	2.35

Jack London Square - 2004 Project Operational Emissions

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	386.30	1000sqft	8.87	386,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Movie Theater (No Matinee)	41.00	1000sqft	0.94	41,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Regional Shopping Center	323.40	1000sqft	7.42	323,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Trip generation rates for 2004 Project with incorporation of mode split and internal capture.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00

tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	ReapplicationRatePercent	10	3
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	2.37	1.37
tblVehicleTrips	ST_TR	8.19	5.19
tblVehicleTrips	ST_TR	80.00	23.12
tblVehicleTrips	ST_TR	94.36	25.72
tblVehicleTrips	ST_TR	49.97	39.52
tblVehicleTrips	SU_TR	0.98	0.57
tblVehicleTrips	SU_TR	5.95	3.77
tblVehicleTrips	SU_TR	80.00	23.12
tblVehicleTrips	SU_TR	72.16	19.67
tblVehicleTrips	SU_TR	25.24	19.96
tblVehicleTrips	WD_TR	11.01	6.37
tblVehicleTrips	WD_TR	8.17	5.18
tblVehicleTrips	WD_TR	80.00	23.12
tblVehicleTrips	WD_TR	89.95	24.52
tblVehicleTrips	WD_TR	42.94	33.96

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

Mobile	75.6865	71.8986	315.5563	1.1384	70.5301	1.7611	72.2912	18.9028	1.6243	20.5271		82,984.07 93	82,984.07 93	1.9194		83,024.38 75
Total	101.6096	79.0995	321.7074	1.1816	70.5301	2.3086	72.8388	18.9028	2.1719	21.0747		91,624.27 80	91,624.27 80	2.0856	0.1584	91,717.17 97

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579
Mobile	75.6865	71.8986	315.5563	1.1384	70.5301	1.7611	72.2912	18.9028	1.6243	20.5271		82,984.0793	82,984.0793	1.9194		83,024.3875
Total	101.6096	79.0995	321.7074	1.1816	70.5301	2.3086	72.8388	18.9028	2.1719	21.0747		91,624.2780	91,624.2780	2.0856	0.1584	91,717.1797

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	75.6865	71.8986	315.5563	1.1384	70.5301	1.7611	72.2912	18.9028	1.6243	20.5271		82,984.0793	82,984.0793	1.9194		83,024.3875

Unmitigated	75.6865	71.8986	315.5563	1.1384	70.5301	1.7611	72.2912	18.9028	1.6243	20.5271		82,984.07 93	82,984.07 93	1.9194		83,024.38 75
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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,460.73	529.23	220.19	4,456,233	4,456,233
Hotel	1,295.00	1,297.50	942.50	2,365,414	2,365,414
Movie Theater (No Matinee)	947.92	947.92	947.92	1,784,931	1,784,931
Quality Restaurant	367.80	385.80	295.05	426,995	426,995
Regional Shopping Center	10,982.66	12,780.77	6455.06	18,572,295	18,572,295
Total	16,054.12	15,941.22	8,860.73	27,605,867	27,605,867

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579
NaturalGas Unmitigated	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Movie Theater (No Matinee)	2884.6	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304
Quality Restaurant	6986.71	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	4252.93	0.0459	0.4170	0.3502	2.5000e-003		0.0317	0.0317		0.0317	0.0317		500.3449	500.3449	9.5900e-003	9.1700e-003	503.3899
General Office Building	21474	0.2316	2.1053	1.7685	0.0126		0.1600	0.1600		0.1600	0.1600		2,526.3584	2,526.3584	0.0484	0.0463	2,541.7334
Hotel	37841.5	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Movie Theater (No Matinee)	2.8846	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304

Quality Restaurant	6.98671	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	4.25293	0.0459	0.4170	0.3502	2.5000e-003		0.0317	0.0317		0.0317	0.0317		500.3449	500.3449	9.5900e-003	9.1700e-003	503.3899
General Office Building	21.474	0.2316	2.1053	1.7685	0.0126		0.1600	0.1600		0.1600	0.1600		2,526.3584	2,526.3584	0.0484	0.0463	2,541.7334
Hotel	37.8415	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Unmitigated	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

Total	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
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Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Total	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2004 Project Operational Emissions

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	386.30	1000sqft	8.87	386,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Movie Theater (No Matinee)	41.00	1000sqft	0.94	41,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Regional Shopping Center	323.40	1000sqft	7.42	323,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Trip generation rates for 2004 Project with incorporation of mode split and internal capture.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00

tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	ReapplicationRatePercent	10	3
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	2.37	1.37
tblVehicleTrips	ST_TR	8.19	5.19
tblVehicleTrips	ST_TR	80.00	23.12
tblVehicleTrips	ST_TR	94.36	25.72
tblVehicleTrips	ST_TR	49.97	39.52
tblVehicleTrips	SU_TR	0.98	0.57
tblVehicleTrips	SU_TR	5.95	3.77
tblVehicleTrips	SU_TR	80.00	23.12
tblVehicleTrips	SU_TR	72.16	19.67
tblVehicleTrips	SU_TR	25.24	19.96
tblVehicleTrips	WD_TR	11.01	6.37
tblVehicleTrips	WD_TR	8.17	5.18
tblVehicleTrips	WD_TR	80.00	23.12
tblVehicleTrips	WD_TR	89.95	24.52
tblVehicleTrips	WD_TR	42.94	33.96

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

Mobile	89.1393	77.8110	422.3174	1.0759	70.5301	1.7720	72.3022	18.9028	1.6344	20.5372		78,816.06 49	78,816.06 49	1.9304		78,856.60 36
Total	115.0624	85.0119	428.4685	1.1191	70.5301	2.3196	72.8498	18.9028	2.1820	21.0848		87,456.26 36	87,456.26 36	2.0966	0.1584	87,549.39 59

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579
Mobile	89.1393	77.8110	422.3174	1.0759	70.5301	1.7720	72.3022	18.9028	1.6344	20.5372		78,816.0649	78,816.0649	1.9304		78,856.6036
Total	115.0624	85.0119	428.4685	1.1191	70.5301	2.3196	72.8498	18.9028	2.1820	21.0848		87,456.2636	87,456.2636	2.0966	0.1584	87,549.3959

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	89.1393	77.8110	422.3174	1.0759	70.5301	1.7720	72.3022	18.9028	1.6344	20.5372		78,816.0649	78,816.0649	1.9304		78,856.6036

Unmitigated	89.1393	77.8110	422.3174	1.0759	70.5301	1.7720	72.3022	18.9028	1.6344	20.5372		78,816.06 49	78,816.06 49	1.9304		78,856.60 36
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4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,460.73	529.23	220.19	4,456,233	4,456,233
Hotel	1,295.00	1,297.50	942.50	2,365,414	2,365,414
Movie Theater (No Matinee)	947.92	947.92	947.92	1,784,931	1,784,931
Quality Restaurant	367.80	385.80	295.05	426,995	426,995
Regional Shopping Center	10,982.66	12,780.77	6455.06	18,572,295	18,572,295
Total	16,054.12	15,941.22	8,860.73	27,605,867	27,605,867

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579
NaturalGas Unmitigated	0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Movie Theater (No Matinee)	2884.6	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304
Quality Restaurant	6986.71	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	4252.93	0.0459	0.4170	0.3502	2.5000e-003		0.0317	0.0317		0.0317	0.0317		500.3449	500.3449	9.5900e-003	9.1700e-003	503.3899
General Office Building	21474	0.2316	2.1053	1.7685	0.0126		0.1600	0.1600		0.1600	0.1600		2,526.3584	2,526.3584	0.0484	0.0463	2,541.7334
Hotel	37841.5	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Movie Theater (No Matinee)	2.8846	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304

Quality Restaurant	6.98671	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	4.25293	0.0459	0.4170	0.3502	2.5000e-003		0.0317	0.0317		0.0317	0.0317		500.3449	500.3449	9.5900e-003	9.1700e-003	503.3899
General Office Building	21.474	0.2316	2.1053	1.7685	0.0126		0.1600	0.1600		0.1600	0.1600		2,526.3584	2,526.3584	0.0484	0.0463	2,541.7334
Hotel	37.8415	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.7920	7.2000	6.0480	0.0432		0.5472	0.5472		0.5472	0.5472		8,639.9765	8,639.9765	0.1656	0.1584	8,692.5579

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Unmitigated	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

Total	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
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Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Total	25.1311	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2004 Project Operational Emissions

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	386.30	1000sqft	8.87	386,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Movie Theater (No Matinee)	41.00	1000sqft	0.94	41,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Regional Shopping Center	323.40	1000sqft	7.42	323,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Trip generation rates for 2004 Project with incorporation of mode split and internal capture.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00

tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	ReapplicationRatePercent	10	3
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	2.37	1.37
tblVehicleTrips	ST_TR	8.19	5.19
tblVehicleTrips	ST_TR	80.00	23.12
tblVehicleTrips	ST_TR	94.36	25.72
tblVehicleTrips	ST_TR	49.97	39.52
tblVehicleTrips	SU_TR	0.98	0.57
tblVehicleTrips	SU_TR	5.95	3.77
tblVehicleTrips	SU_TR	80.00	23.12
tblVehicleTrips	SU_TR	72.16	19.67
tblVehicleTrips	SU_TR	25.24	19.96
tblVehicleTrips	WD_TR	11.01	6.37
tblVehicleTrips	WD_TR	8.17	5.18
tblVehicleTrips	WD_TR	80.00	23.12
tblVehicleTrips	WD_TR	89.95	24.52
tblVehicleTrips	WD_TR	42.94	33.96

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.5856	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Energy	0.1445	1.3140	1.1038	7.8800e-003		0.0999	0.0999		0.0999	0.0999	0.0000	5,274.1093	5,274.1093	0.2012	0.0622	5,297.6116

Mobile	11.8884	11.5152	55.5266	0.1646	10.3456	0.2687	10.6142	2.7816	0.2478	3.0294	0.0000	10,946.0181	10,946.0181	0.2656	0.0000	10,951.5954
Waste						0.0000	0.0000		0.0000	0.0000	219.8595	0.0000	219.8595	12.9933	0.0000	492.7193
Water						0.0000	0.0000		0.0000	0.0000	38.0622	248.7328	286.7950	3.9206	0.0946	398.4646
Total	16.6185	12.8293	56.6397	0.1725	10.3456	0.3685	10.7141	2.7816	0.3477	3.1293	257.9217	16,468.8784	16,726.8001	17.3808	0.1568	17,140.4101

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.5856	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Energy	0.1445	1.3140	1.1038	7.8800e-003		0.0999	0.0999		0.0999	0.0999	0.0000	5,274.1093	5,274.1093	0.2012	0.0622	5,297.6116
Mobile	11.8884	11.5152	55.5266	0.1646	10.3456	0.2687	10.6142	2.7816	0.2478	3.0294	0.0000	10,946.0181	10,946.0181	0.2656	0.0000	10,951.5954
Waste						0.0000	0.0000		0.0000	0.0000	219.8595	0.0000	219.8595	12.9933	0.0000	492.7193
Water						0.0000	0.0000		0.0000	0.0000	38.0622	248.7328	286.7950	3.9199	0.0945	398.4038
Total	16.6185	12.8293	56.6397	0.1725	10.3456	0.3685	10.7141	2.7816	0.3477	3.1293	257.9217	16,468.8784	16,726.8001	17.3801	0.1567	17,140.3494

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0850e-003	0.0957	3.5425e-004

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	11.8884	11.5152	55.5266	0.1646	10.3456	0.2687	10.6142	2.7816	0.2478	3.0294	0.0000	10,946.0181	10,946.0181	0.2656	0.0000	10,951.5954
Unmitigated	11.8884	11.5152	55.5266	0.1646	10.3456	0.2687	10.6142	2.7816	0.2478	3.0294	0.0000	10,946.0181	10,946.0181	0.2656	0.0000	10,951.5954

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	2,460.73	529.23	220.19	4,456,233	4,456,233
Hotel	1,295.00	1,297.50	942.50	2,365,414	2,365,414
Movie Theater (No Matinee)	947.92	947.92	947.92	1,784,931	1,784,931
Quality Restaurant	367.80	385.80	295.05	426,995	426,995
Regional Shopping Center	10,982.66	12,780.77	6455.06	18,572,295	18,572,295
Total	16,054.12	15,941.22	8,860.73	27,605,867	27,605,867

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,843.6643	3,843.6643	0.1738	0.0360	3,858.4612
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,843.6643	3,843.6643	0.1738	0.0360	3,858.4612
NaturalGas Mitigated	0.1445	1.3140	1.1038	7.8800e-003		0.0999	0.0999		0.0999	0.0999	0.0000	1,430.4450	1,430.4450	0.0274	0.0262	1,439.1505
NaturalGas Unmitigated	0.1445	1.3140	1.1038	7.8800e-003		0.0999	0.0999		0.0999	0.0999	0.0000	1,430.4450	1,430.4450	0.0274	0.0262	1,439.1505

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Movie Theater (No Matinee)	1.05288e+006	5.6800e-003	0.0516	0.0434	3.1000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	56.1857	56.1857	1.0800e-003	1.0300e-003	56.5276
Quality Restaurant	2.55015e+006	0.0138	0.1250	0.1050	7.5000e-004		9.5000e-003	9.5000e-003		9.5000e-003	9.5000e-003	0.0000	136.0857	136.0857	2.6100e-003	2.4900e-003	136.9139
Regional Shopping Center	1.55232e+006	8.3700e-003	0.0761	0.0639	4.6000e-004		5.7800e-003	5.7800e-003		5.7800e-003	5.7800e-003	0.0000	82.8377	82.8377	1.5900e-003	1.5200e-003	83.3418
General Office Building	7.83803e+006	0.0423	0.3842	0.3227	2.3100e-003		0.0292	0.0292		0.0292	0.0292	0.0000	418.2670	418.2670	8.0200e-003	7.6700e-003	420.8125
Hotel	1.38122e+007	0.0745	0.6771	0.5687	4.0600e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.0689	737.0689	0.0141	0.0135	741.5546
Total		0.1445	1.3140	1.1038	7.8900e-003		0.0999	0.0999		0.0999	0.0999	0.0000	1,430.4450	1,430.4450	0.0274	0.0262	1,439.1504

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Quality Restaurant	2.55015e+006	0.0138	0.1250	0.1050	7.5000e-004		9.5000e-003	9.5000e-003		9.5000e-003	9.5000e-003	0.0000	136.0857	136.0857	2.6100e-003	2.4900e-003	136.9139
Regional Shopping Center	1.55232e+006	8.3700e-003	0.0761	0.0639	4.6000e-004		5.7800e-003	5.7800e-003		5.7800e-003	5.7800e-003	0.0000	82.8377	82.8377	1.5900e-003	1.5200e-003	83.3418
General Office Building	7.83803e+006	0.0423	0.3842	0.3227	2.3100e-003		0.0292	0.0292		0.0292	0.0292	0.0000	418.2670	418.2670	8.0200e-003	7.6700e-003	420.8125
Hotel	1.38122e+007	0.0745	0.6771	0.5687	4.0600e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.0689	737.0689	0.0141	0.0135	741.5546
Movie Theater (No Matinee)	1.05288e+006	5.6800e-003	0.0516	0.0434	3.1000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	56.1857	56.1857	1.0800e-003	1.0300e-003	56.5276
Total		0.1445	1.3140	1.1038	7.8900e-003		0.0999	0.0999		0.0999	0.0999	0.0000	1,430.4450	1,430.4450	0.0274	0.0262	1,439.1504

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	5.36184e+006	1,559.8219	0.0705	0.0146	1,565.8267
Hotel	3.3033e+006	960.9679	0.0435	8.9900e-003	964.6673
Movie Theater (No Matinee)	339070	98.6394	4.4600e-003	9.2000e-004	99.0191
Quality Restaurant	453600	131.9574	5.9700e-003	1.2300e-003	132.4654
Regional Shopping Center	3.75467e+006	1,092.2777	0.0494	0.0102	1,096.4827
Total		3,843.6643	0.1738	0.0360	3,858.4612

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	5.36184e+006	1,559.8219	0.0705	0.0146	1,565.8267
Hotel	3.3033e+006	960.9679	0.0435	8.9900e-003	964.6673
Movie Theater (No Matinee)	339070	98.6394	4.4600e-003	9.2000e-004	99.0191
Quality Restaurant	453600	131.9574	5.9700e-003	1.2300e-003	132.4654
Regional Shopping Center	3.75467e+006	1,092.2777	0.0494	0.0102	1,096.4827
Total		3,843.6643	0.1738	0.0360	3,858.4612

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5856	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Unmitigated	4.5856	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1766					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.5000e-004	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Total	4.5856	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1766					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.5000e-004	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Total	4.5856	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mitigated	286.7950	3.9199	0.0945	398.4038
Unmitigated	286.7950	3.9206	0.0946	398.4646

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	68.6585 / 42.081	172.7056	2.2441	0.0542	236.6448
Hotel	6.34169 / 0.704632	12.7120	0.2071	4.9800e-003	18.6053
Movie Theater (No Matinee)	16.4657 / 1.051	32.2129	0.5378	0.0129	47.5113
Quality Restaurant	4.55301 / 0.290617	8.9074	0.1487	3.5700e-003	13.1376
Regional Shopping Center	23.9551 / 14.6821	60.2572	0.7830	0.0189	82.5657
Total		286.7950	3.9206	0.0946	398.4646

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	68.6585 / 42.081	172.7056	2.2437	0.0542	236.6100
Hotel	6.34169 / 0.704632	12.7120	0.2071	4.9700e-003	18.6021
Movie Theater (No Matinee)	16.4657 / 1.051	32.2129	0.5377	0.0129	47.5030

Quality Restaurant	4.55301 / 0.290617	8.9074	0.1487	3.5700e-003	13.1353
Regional Shopping Center	23.9551 / 14.6821	60.2572	0.7828	0.0189	82.5535
Total		286.7950	3.9199	0.0945	398.4038

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	219.8595	12.9933	0.0000	492.7193
Unmitigated	219.8595	12.9933	0.0000	492.7193

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	359.26	72.9265	4.3098	0.0000	163.4331
Hotel	136.88	27.7854	1.6421	0.0000	62.2689
Movie Theater (No Matinee)	233.7	47.4390	2.8036	0.0000	106.3138
Quality Restaurant	13.69	2.7790	0.1642	0.0000	6.2278

Regional Shopping Center	339.57	68.9296	4.0736	0.0000	154.4758
Total		219.8595	12.9933	0.0000	492.7193

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	359.26	72.9265	4.3098	0.0000	163.4331
Hotel	136.88	27.7854	1.6421	0.0000	62.2689
Movie Theater (No Matinee)	233.7	47.4390	2.8036	0.0000	106.3138
Quality Restaurant	13.69	2.7790	0.1642	0.0000	6.2278
Regional Shopping Center	339.57	68.9296	4.0736	0.0000	154.4758
Total		219.8595	12.9933	0.0000	492.7193

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (Max Residential Scenario)

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	217.30	1000sqft	4.99	217,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Apartments High Rise	666.00	Dwelling Unit	2.18	666,000.00	1905
Regional Shopping Center	194.40	1000sqft	4.46	194,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of both Site D and F2 is approximately 2 acres based on footprints.

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Woodstoves - Assumes no fireplaces for the proposed residential dwelling units.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	Area_Residential_Exterior	449550	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	0	150
tblFireplaces	Value_FireplaceDayYear	4.29	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	92.40	0.00
tblFireplaces	NumberGas	366.30	0.00
tblFireplaces	NumberNoFireplace	206.46	0.00
tblFireplaces	NumberWood	93.24	0.00
tblLandUse	LotAcreage	10.74	2.18
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	7.16	5.27
tblVehicleTrips	ST_TR	2.37	1.84
tblVehicleTrips	ST_TR	8.19	5.87
tblVehicleTrips	ST_TR	94.36	74.16
tblVehicleTrips	ST_TR	49.97	49.23
tblVehicleTrips	SU_TR	6.07	4.47
tblVehicleTrips	SU_TR	0.98	0.76
tblVehicleTrips	SU_TR	5.95	4.27
tblVehicleTrips	SU_TR	72.16	56.71
tblVehicleTrips	SU_TR	25.24	24.86
tblVehicleTrips	WD_TR	6.59	4.85
tblVehicleTrips	WD_TR	11.01	8.57
tblVehicleTrips	WD_TR	8.17	5.86
tblVehicleTrips	WD_TR	89.95	70.69
tblVehicleTrips	WD_TR	42.94	42.30

tblWoodstoves	NumberCatalytic	3.33	0.00
tblWoodstoves	NumberNoncatalytic	3.33	0.00
tblWoodstoves	WoodstoveDayYear	10.82	0.00
tblWoodstoves	WoodstoveWoodMass	954.80	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698
Energy	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097
Mobile	75.7087	71.6817	313.6130	1.1431	70.9064	1.7653	72.6717	19.0036	1.6283	20.6319		83,324.8995	83,324.8995	1.9238		83,365.2982
Total	110.2846	79.6326	373.9650	1.1905	70.9064	2.6337	73.5401	19.0036	2.4967	21.5002	0.0000	92,320.3512	92,320.3512	2.1888	0.1631	92,416.8776

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698
Energy	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097
Mobile	75.7087	71.6817	313.6130	1.1431	70.9064	1.7653	72.6717	19.0036	1.6283	20.6319		83,324.8995	83,324.8995	1.9238		83,365.2982
Total	110.2846	79.6326	373.9650	1.1905	70.9064	2.6337	73.5401	19.0036	2.4967	21.5002	0.0000	92,320.3512	92,320.3512	2.1888	0.1631	92,416.8776

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	75.7087	71.6817	313.6130	1.1431	70.9064	1.7653	72.6717	19.0036	1.6283	20.6319		83,324.8995	83,324.8995	1.9238		83,365.2982
Unmitigated	75.7087	71.6817	313.6130	1.1431	70.9064	1.7653	72.6717	19.0036	1.6283	20.6319		83,324.8995	83,324.8995	1.9238		83,365.2982

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	3,230.10	3,509.82	2977.02	7,219,261	7,219,261
General Office Building	1,862.26	399.83	165.15	3,371,697	3,371,697
Hotel	1,465.00	1,467.50	1067.50	2,676,188	2,676,188
Quality Restaurant	1,060.35	1,112.40	850.65	1,231,038	1,231,038
Regional Shopping Center	8,223.12	9,570.31	4832.78	13,905,885	13,905,885
Total	15,840.83	16,059.86	9,893.10	28,404,070	28,404,070

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097
NaturalGas Unmitigated	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16154.9	0.1742	1.4888	0.6335	9.5000e-003		0.1204	0.1204		0.1204	0.1204		1,900.5783	1,900.5783	0.0364	0.0348	1,912.1449
General Office Building	12079.5	0.1303	1.1843	0.9948	7.1100e-003		0.0900	0.0900		0.0900	0.0900		1,421.1175	1,421.1175	0.0272	0.0261	1,429.7662

Hotel	37841.5	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Quality Restaurant	6986.71	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	2556.49	0.0276	0.2506	0.2105	1.5000e-003		0.0191	0.0191		0.0191	0.0191		300.7639	300.7639	5.7600e-003	5.5100e-003	302.5943
Total		0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	12.0795	0.1303	1.1843	0.9948	7.1100e-003		0.0900	0.0900		0.0900	0.0900		1,421.1175	1,421.1175	0.0272	0.0261	1,429.7662
Hotel	37.8415	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Quality Restaurant	6.98671	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	2.55649	0.0276	0.2506	0.2105	1.5000e-003		0.0191	0.0191		0.0191	0.0191		300.7639	300.7639	5.7600e-003	5.5100e-003	302.5943
Apartments High Rise	16.1549	0.1742	1.4888	0.6335	9.5000e-003		0.1204	0.1204		0.1204	0.1204		1,900.5783	1,900.5783	0.0364	0.0348	1,912.1449
Total		0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698

Unmitigated	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698
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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	31.1520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6434	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050		99.0839	99.0839	0.0946		101.0698
Total	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	31.1520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6434	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050		99.0839	99.0839	0.0946		101.0698
Total	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (Max Residential Scenario)

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	217.30	1000sqft	4.99	217,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Apartments High Rise	666.00	Dwelling Unit	2.18	666,000.00	1905
Regional Shopping Center	194.40	1000sqft	4.46	194,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of both Site D and F2 is approximately 2 acres based on footprints.

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Woodstoves - Assumes no fireplaces for the proposed residential dwelling units.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	Area_Residential_Exterior	449550	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	0	150
tblFireplaces	Value_FireplaceDayYear	4.29	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	92.40	0.00
tblFireplaces	NumberGas	366.30	0.00
tblFireplaces	NumberNoFireplace	206.46	0.00
tblFireplaces	NumberWood	93.24	0.00
tblLandUse	LotAcreage	10.74	2.18
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	7.16	5.27
tblVehicleTrips	ST_TR	2.37	1.84
tblVehicleTrips	ST_TR	8.19	5.87
tblVehicleTrips	ST_TR	94.36	74.16
tblVehicleTrips	ST_TR	49.97	49.23
tblVehicleTrips	SU_TR	6.07	4.47
tblVehicleTrips	SU_TR	0.98	0.76
tblVehicleTrips	SU_TR	5.95	4.27
tblVehicleTrips	SU_TR	72.16	56.71
tblVehicleTrips	SU_TR	25.24	24.86
tblVehicleTrips	WD_TR	6.59	4.85
tblVehicleTrips	WD_TR	11.01	8.57
tblVehicleTrips	WD_TR	8.17	5.86
tblVehicleTrips	WD_TR	89.95	70.69
tblVehicleTrips	WD_TR	42.94	42.30

tblWoodstoves	NumberCatalytic	3.33	0.00
tblWoodstoves	NumberNoncatalytic	3.33	0.00
tblWoodstoves	WoodstoveDayYear	10.82	0.00
tblWoodstoves	WoodstoveWoodMass	954.80	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698
Energy	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097
Mobile	89.2702	77.5987	417.8638	1.0802	70.9064	1.7761	72.6825	19.0036	1.6382	20.6418		79,141.1288	79,141.1288	1.9345		79,181.7535
Total	123.8460	85.5496	478.2158	1.1276	70.9064	2.6445	73.5509	19.0036	2.5066	21.5102	0.0000	88,136.5806	88,136.5806	2.1996	0.1631	88,233.3329

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698
Energy	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097
Mobile	89.2702	77.5987	417.8638	1.0802	70.9064	1.7761	72.6825	19.0036	1.6382	20.6418		79,141.1288	79,141.1288	1.9345		79,181.7535
Total	123.8460	85.5496	478.2158	1.1276	70.9064	2.6445	73.5509	19.0036	2.5066	21.5102	0.0000	88,136.5806	88,136.5806	2.1996	0.1631	88,233.3329

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	89.2702	77.5987	417.8638	1.0802	70.9064	1.7761	72.6825	19.0036	1.6382	20.6418		79,141.1288	79,141.1288	1.9345		79,181.7535
Unmitigated	89.2702	77.5987	417.8638	1.0802	70.9064	1.7761	72.6825	19.0036	1.6382	20.6418		79,141.1288	79,141.1288	1.9345		79,181.7535

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	3,230.10	3,509.82	2977.02	7,219,261	7,219,261
General Office Building	1,862.26	399.83	165.15	3,371,697	3,371,697
Hotel	1,465.00	1,467.50	1067.50	2,676,188	2,676,188
Quality Restaurant	1,060.35	1,112.40	850.65	1,231,038	1,231,038
Regional Shopping Center	8,223.12	9,570.31	4832.78	13,905,885	13,905,885
Total	15,840.83	16,059.86	9,893.10	28,404,070	28,404,070

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097
NaturalGas Unmitigated	0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16154.9	0.1742	1.4888	0.6335	9.5000e-003		0.1204	0.1204		0.1204	0.1204		1,900.5783	1,900.5783	0.0364	0.0348	1,912.1449
General Office Building	12079.5	0.1303	1.1843	0.9948	7.1100e-003		0.0900	0.0900		0.0900	0.0900		1,421.1175	1,421.1175	0.0272	0.0261	1,429.7662

Hotel	37841.5	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Quality Restaurant	6986.71	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	2556.49	0.0276	0.2506	0.2105	1.5000e-003		0.0191	0.0191		0.0191	0.0191		300.7639	300.7639	5.7600e-003	5.5100e-003	302.5943
Total		0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	12.0795	0.1303	1.1843	0.9948	7.1100e-003		0.0900	0.0900		0.0900	0.0900		1,421.1175	1,421.1175	0.0272	0.0261	1,429.7662
Hotel	37.8415	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Quality Restaurant	6.98671	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	2.55649	0.0276	0.2506	0.2105	1.5000e-003		0.0191	0.0191		0.0191	0.0191		300.7639	300.7639	5.7600e-003	5.5100e-003	302.5943
Apartments High Rise	16.1549	0.1742	1.4888	0.6335	9.5000e-003		0.1204	0.1204		0.1204	0.1204		1,900.5783	1,900.5783	0.0364	0.0348	1,912.1449
Total		0.8155	7.3186	5.5306	0.0445		0.5634	0.5634		0.5634	0.5634		8,896.3678	8,896.3678	0.1705	0.1631	8,950.5097

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698

Unmitigated	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698
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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	31.1520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6434	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050		99.0839	99.0839	0.0946		101.0698
Total	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	31.1520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6434	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050		99.0839	99.0839	0.0946		101.0698
Total	33.7604	0.6323	54.8214	2.9100e-003		0.3050	0.3050		0.3050	0.3050	0.0000	99.0839	99.0839	0.0946	0.0000	101.0698

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (Max Residential Scenario)
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	217.30	1000sqft	4.99	217,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Apartments High Rise	666.00	Dwelling Unit	2.18	666,000.00	1905
Regional Shopping Center	194.40	1000sqft	4.46	194,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of both Site D and F2 is approximately 2 acres based on footprints.

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Woodstoves - Assumes no fireplaces for the proposed residential dwelling units.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	Area_Residential_Exterior	449550	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	0	150
tblFireplaces	Value_FireplaceDayYear	4.29	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	92.40	0.00
tblFireplaces	NumberGas	366.30	0.00
tblFireplaces	NumberNoFireplace	206.46	0.00
tblFireplaces	NumberWood	93.24	0.00
tblLandUse	LotAcreage	10.74	2.18
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	7.16	5.27
tblVehicleTrips	ST_TR	2.37	1.84
tblVehicleTrips	ST_TR	8.19	5.87
tblVehicleTrips	ST_TR	94.36	74.16
tblVehicleTrips	ST_TR	49.97	49.23
tblVehicleTrips	SU_TR	6.07	4.47
tblVehicleTrips	SU_TR	0.98	0.76
tblVehicleTrips	SU_TR	5.95	4.27
tblVehicleTrips	SU_TR	72.16	56.71
tblVehicleTrips	SU_TR	25.24	24.86
tblVehicleTrips	WD_TR	6.59	4.85
tblVehicleTrips	WD_TR	11.01	8.57
tblVehicleTrips	WD_TR	8.17	5.86
tblVehicleTrips	WD_TR	89.95	70.69
tblVehicleTrips	WD_TR	42.94	42.30

tblWoodstoves	NumberCatalytic	3.33	0.00
tblWoodstoves	NumberNoncatalytic	3.33	0.00
tblWoodstoves	WoodstoveDayYear	10.82	0.00
tblWoodstoves	WoodstoveWoodMass	954.80	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.0093	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520
Energy	0.1488	1.3357	1.0093	8.1200e-003		0.1028	0.1028		0.1028	0.1028	0.0000	4,800.2897	4,800.2897	0.1787	0.0581	4,822.0629
Mobile	12.1733	11.7416	56.2218	0.1691	10.6447	0.2755	10.9202	2.8620	0.2541	3.1161	0.0000	11,247.0379	11,247.0379	0.2723	0.0000	11,252.7567
Waste						0.0000	0.0000		0.0000	0.0000	175.2096	0.0000	175.2096	10.3546	0.0000	392.6561
Water						0.0000	0.0000		0.0000	0.0000	34.0440	230.8719	264.9159	3.5071	0.0847	364.8290
Total	18.3314	13.1342	62.1651	0.1775	10.6447	0.4058	11.0505	2.8620	0.3844	3.2464	209.2537	16,286.2894	16,495.5430	14.3204	0.1429	16,840.5567

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.0093	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520
Energy	0.1488	1.3357	1.0093	8.1200e-003		0.1028	0.1028		0.1028	0.1028	0.0000	4,800.2897	4,800.2897	0.1787	0.0581	4,822.0629

Mobile	12.1733	11.7416	56.2218	0.1691	10.6447	0.2755	10.9202	2.8620	0.2541	3.1161	0.0000	11,247.0379	11,247.0379	0.2723	0.0000	11,252.7567
Waste						0.0000	0.0000		0.0000	0.0000	175.2096	0.0000	175.2096	10.3546	0.0000	392.6561
Water						0.0000	0.0000		0.0000	0.0000	34.0440	230.8719	264.9159	3.5065	0.0846	364.7747
Total	18.3314	13.1342	62.1651	0.1775	10.6447	0.4058	11.0505	2.8620	0.3844	3.2464	209.2537	16,286.2894	16,495.5430	14.3198	0.1427	16,840.5024

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4691e-003	0.0910	3.2250e-004

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.1733	11.7416	56.2218	0.1691	10.6447	0.2755	10.9202	2.8620	0.2541	3.1161	0.0000	11,247.0379	11,247.0379	0.2723	0.0000	11,252.7567
Unmitigated	12.1733	11.7416	56.2218	0.1691	10.6447	0.2755	10.9202	2.8620	0.2541	3.1161	0.0000	11,247.0379	11,247.0379	0.2723	0.0000	11,252.7567

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	3,230.10	3,509.82	2977.02	7,219,261	7,219,261
General Office Building	1,862.26	399.83	165.15	3,371,697	3,371,697
Hotel	1,465.00	1,467.50	1067.50	2,676,188	2,676,188
Quality Restaurant	1,060.35	1,112.40	850.65	1,231,038	1,231,038
Regional Shopping Center	8,223.12	9,570.31	4832.78	13,905,885	13,905,885
Total	15,840.83	16,059.86	9,893.10	28,404,070	28,404,070

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,327.3962	3,327.3962	0.1505	0.0311	3,340.2057
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,327.3962	3,327.3962	0.1505	0.0311	3,340.2057
NaturalGas Mitigated	0.1488	1.3357	1.0093	8.1200e-003		0.1028	0.1028		0.1028	0.1028	0.0000	1,472.8935	1,472.8935	0.0282	0.0270	1,481.8573
NaturalGas Unmitigated	0.1488	1.3357	1.0093	8.1200e-003		0.1028	0.1028		0.1028	0.1028	0.0000	1,472.8935	1,472.8935	0.0282	0.0270	1,481.8573

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.89654e+006	0.0318	0.2717	0.1156	1.7300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	314.6621	314.6621	6.0300e-003	5.7700e-003	316.5770
General Office Building	4.40902e+006	0.0238	0.2161	0.1816	1.3000e-003		0.0164	0.0164		0.0164	0.0164	0.0000	235.2819	235.2819	4.5100e-003	4.3100e-003	236.7138
Hotel	1.38122e+007	0.0745	0.6771	0.5687	4.0600e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.0689	737.0689	0.0141	0.0135	741.5546
Quality Restaurant	2.55015e+006	0.0138	0.1250	0.1050	7.5000e-004		9.5000e-003	9.5000e-003		9.5000e-003	9.5000e-003	0.0000	136.0857	136.0857	2.6100e-003	2.4900e-003	136.9139
Regional Shopping Center	933120	5.0300e-003	0.0457	0.0384	2.7000e-004		3.4800e-003	3.4800e-003		3.4800e-003	3.4800e-003	0.0000	49.7948	49.7948	9.5000e-004	9.1000e-004	50.0979
Total		0.1488	1.3357	1.0093	8.1100e-003		0.1028	0.1028		0.1028	0.1028	0.0000	1,472.8935	1,472.8935	0.0282	0.0270	1,481.8573

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	4.40902e+006	0.0238	0.2161	0.1816	1.3000e-003		0.0164	0.0164		0.0164	0.0164	0.0000	235.2819	235.2819	4.5100e-003	4.3100e-003	236.7138
Hotel	1.38122e+007	0.0745	0.6771	0.5687	4.0600e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.0689	737.0689	0.0141	0.0135	741.5546
Quality Restaurant	2.55015e+006	0.0138	0.1250	0.1050	7.5000e-004		9.5000e-003	9.5000e-003		9.5000e-003	9.5000e-003	0.0000	136.0857	136.0857	2.6100e-003	2.4900e-003	136.9139
Regional Shopping Center	933120	5.0300e-003	0.0457	0.0384	2.7000e-004		3.4800e-003	3.4800e-003		3.4800e-003	3.4800e-003	0.0000	49.7948	49.7948	9.5000e-004	9.1000e-004	50.0979
Apartments High Rise	5.89654e+006	0.0318	0.2717	0.1156	1.7300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	314.6621	314.6621	6.0300e-003	5.7700e-003	316.5770
Total		0.1488	1.3357	1.0093	8.1100e-003		0.1028	0.1028		0.1028	0.1028	0.0000	1,472.8935	1,472.8935	0.0282	0.0270	1,481.8573

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.40782e+006	700.4634	0.0317	6.5500e-003	703.1599
General Office Building	3.01612e+006	877.4251	0.0397	8.2100e-003	880.8029
Hotel	3.3033e+006	960.9679	0.0435	8.9900e-003	964.6673
Quality Restaurant	453600	131.9574	5.9700e-003	1.2300e-003	132.4654
Regional Shopping Center	2.25698e+006	656.5825	0.0297	6.1400e-003	659.1102
Total		3,327.3962	0.1505	0.0311	3,340.2057

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.40782e+006	700.4634	0.0317	6.5500e-003	703.1599
General Office Building	3.01612e+006	877.4251	0.0397	8.2100e-003	880.8029
Hotel	3.3033e+006	960.9679	0.0435	8.9900e-003	964.6673
Quality Restaurant	453600	131.9574	5.9700e-003	1.2300e-003	132.4654
Regional Shopping Center	2.25698e+006	656.5825	0.0297	6.1400e-003	659.1102
Total		3,327.3962	0.1505	0.0311	3,340.2057

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.0093	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520
Unmitigated	6.0093	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1761					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6852					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1479	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520
Total	6.0093	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1761					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6852					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1479	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520
Total	6.0093	0.0569	4.9339	2.6000e-004		0.0275	0.0275		0.0275	0.0275	0.0000	8.0899	8.0899	7.7200e-003	0.0000	8.2520

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	264.9159	3.5065	0.0846	364.7747
Unmitigated	264.9159	3.5071	0.0847	364.8290

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	43.3926 / 27.3562	109.9255	1.4183	0.0343	150.3384
General Office Building	38.6215 / 23.6713	97.1497	1.2623	0.0305	133.1165

Hotel	6.34169 / 0.704632	12.7120	0.2071	4.9800e-003	18.6053
Quality Restaurant	4.55301 / 0.290617	8.9074	0.1487	3.5700e-003	13.1376
Regional Shopping Center	14.3997 / 8.82562	36.2214	0.4707	0.0114	49.6313
Total		264.9159	3.5071	0.0847	364.8290

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	43.3926 / 27.3562	109.9255	1.4180	0.0342	150.3164
General Office Building	38.6215 / 23.6713	97.1497	1.2621	0.0305	133.0970
Hotel	6.34169 / 0.704632	12.7120	0.2071	4.9700e-003	18.6021
Quality Restaurant	4.55301 / 0.290617	8.9074	0.1487	3.5700e-003	13.1353
Regional Shopping Center	14.3997 / 8.82562	36.2214	0.4706	0.0114	49.6240
Total		264.9159	3.5065	0.0846	364.7747

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	175.2096	10.3546	0.0000	392.6561
Unmitigated	175.2096	10.3546	0.0000	392.6561

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	306.36	62.1883	3.6752	0.0000	139.3680
General Office Building	202.09	41.0224	2.4244	0.0000	91.9339
Hotel	136.88	27.7854	1.6421	0.0000	62.2689
Quality Restaurant	13.69	2.7790	0.1642	0.0000	6.2278
Regional Shopping Center	204.12	41.4345	2.4487	0.0000	92.8574
Total		175.2096	10.3546	0.0000	392.6561

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	306.36	62.1883	3.6752	0.0000	139.3680
General Office Building	202.09	41.0224	2.4244	0.0000	91.9339
Hotel	136.88	27.7854	1.6421	0.0000	62.2689

Quality Restaurant	13.69	2.7790	0.1642	0.0000	6.2278
Regional Shopping Center	204.12	41.4345	2.4487	0.0000	92.8574
Total		175.2096	10.3546	0.0000	392.6561

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (Max. Commercial Scenario)
Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	441.30	1000sqft	10.13	441,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Movie Theater (No Matinee)	41.00	1000sqft	0.94	41,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Regional Shopping Center	268.40	1000sqft	6.16	268,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00

tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	0	150
tblProjectCharacteristics	Value OperationalYear	2014	2035
tblVehicleTrips	ST_TR	2.37	1.57
tblVehicleTrips	ST_TR	8.19	5.87
tblVehicleTrips	ST_TR	80.00	26.07
tblVehicleTrips	ST_TR	94.36	74.16
tblVehicleTrips	ST_TR	49.97	43.96
tblVehicleTrips	SU_TR	0.98	0.64
tblVehicleTrips	SU_TR	5.95	4.27
tblVehicleTrips	SU_TR	80.00	26.07
tblVehicleTrips	SU_TR	72.16	56.71
tblVehicleTrips	SU_TR	25.24	22.21
tblVehicleTrips	WD_TR	11.01	7.23
tblVehicleTrips	WD_TR	8.17	5.86
tblVehicleTrips	WD_TR	80.00	26.07
tblVehicleTrips	WD_TR	89.95	70.69
tblVehicleTrips	WD_TR	42.94	37.78

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302
Mobile	78.9684	75.0099	329.1851	1.1879	73.5979	1.8375	75.4354	19.7249	1.6949	21.4198		86,590.8459	86,590.8459	2.0028		86,632.9040
Total	104.5942	82.4396	335.5285	1.2325	73.5979	2.4025	76.0004	19.7249	2.2598	21.9848		95,505.6458	95,505.6458	2.1742	0.1634	95,601.9686

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302
Mobile	78.9684	75.0099	329.1851	1.1879	73.5979	1.8375	75.4354	19.7249	1.6949	21.4198		86,590.8459	86,590.8459	2.0028		86,632.9040
Total	104.5942	82.4396	335.5285	1.2325	73.5979	2.4025	76.0004	19.7249	2.2598	21.9848		95,505.6458	95,505.6458	2.1742	0.1634	95,601.9686

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
Mitigated	78.9684	75.0099	329.1851	1.1879	73.5979	1.8375	75.4354	19.7249	1.6949	21.4198		86,590.8459	86,590.8459	2.0028	86,632.9040
Unmitigated	78.9684	75.0099	329.1851	1.1879	73.5979	1.8375	75.4354	19.7249	1.6949	21.4198		86,590.8459	86,590.8459	2.0028	86,632.9040

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	3,190.60	692.84	282.43	5,779,197	5,779,197
Hotel	1,465.00	1,467.50	1067.50	2,676,188	2,676,188
Movie Theater (No Matinee)	1,068.87	1,068.87	1068.87	2,012,679	2,012,679
Quality Restaurant	1,060.35	1,112.40	850.65	1,231,038	1,231,038
Regional Shopping Center	10,140.15	11,798.86	5961.16	17,147,519	17,147,519
Total	16,924.97	16,140.48	9,230.62	28,846,620	28,846,620

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302
NaturalGas Unmitigated	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Movie Theater (No Matinee)	2884.6	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304
Quality Restaurant	6986.71	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	3529.64	0.0381	0.3460	0.2907	2.0800e-003		0.0263	0.0263		0.0263	0.0263		415.2522	415.2522	7.9600e-003	7.6100e-003	417.7794
General Office Building	24531.4	0.2646	2.4050	2.0202	0.0144		0.1828	0.1828		0.1828	0.1828		2,866.0522	2,866.0522	0.0553	0.0529	2,903.6163
Hotel	37841.5	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					

Movie Theater (No Matinee)	2.8846	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304
Quality Restaurant	6.98671	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	3.52964	0.0381	0.3460	0.2907	2.0800e-003		0.0263	0.0263		0.0263	0.0263		415.2522	415.2522	7.9600e-003	7.6100e-003	417.7794
General Office Building	24.5314	0.2646	2.4050	2.0202	0.0144		0.1828	0.1828		0.1828	0.1828		2,886.0522	2,886.0522	0.0553	0.0529	2,903.6163
Hotel	37.8415	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Unmitigated	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Total	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Total	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (Max. Commercial Scenario)
Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	441.30	1000sqft	10.13	441,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Movie Theater (No Matinee)	41.00	1000sqft	0.94	41,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Regional Shopping Center	268.40	1000sqft	6.16	268,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00

tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	0	150
tblProjectCharacteristics	Value OperationalYear	2014	2035
tblVehicleTrips	ST_TR	2.37	1.57
tblVehicleTrips	ST_TR	8.19	5.87
tblVehicleTrips	ST_TR	80.00	26.07
tblVehicleTrips	ST_TR	94.36	74.16
tblVehicleTrips	ST_TR	49.97	43.96
tblVehicleTrips	SU_TR	0.98	0.64
tblVehicleTrips	SU_TR	5.95	4.27
tblVehicleTrips	SU_TR	80.00	26.07
tblVehicleTrips	SU_TR	72.16	56.71
tblVehicleTrips	SU_TR	25.24	22.21
tblVehicleTrips	WD_TR	11.01	7.23
tblVehicleTrips	WD_TR	8.17	5.86
tblVehicleTrips	WD_TR	80.00	26.07
tblVehicleTrips	WD_TR	89.95	70.69
tblVehicleTrips	WD_TR	42.94	37.78

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302
Mobile	93.0073	81.1788	440.5078	1.1226	73.5979	1.8490	75.4469	19.7249	1.7054	21.4303		82,241.7119	82,241.7119	2.0142		82,284.0104
Total	118.6331	88.6085	446.8511	1.1672	73.5979	2.4139	76.0119	19.7249	2.2704	21.9953		91,156.5118	91,156.5118	2.1857	0.1634	91,253.0750

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Energy	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302
Mobile	93.0073	81.1788	440.5078	1.1226	73.5979	1.8490	75.4469	19.7249	1.7054	21.4303		82,241.7119	82,241.7119	2.0142		82,284.0104
Total	118.6331	88.6085	446.8511	1.1672	73.5979	2.4139	76.0119	19.7249	2.2704	21.9953		91,156.5118	91,156.5118	2.1857	0.1634	91,253.0750

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
Mitigated	93.0073	81.1788	440.5078	1.1226	73.5979	1.8490	75.4469	19.7249	1.7054	21.4303		82,241.7119	82,241.7119	2.0142	82,284.0104
Unmitigated	93.0073	81.1788	440.5078	1.1226	73.5979	1.8490	75.4469	19.7249	1.7054	21.4303		82,241.7119	82,241.7119	2.0142	82,284.0104

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	3,190.60	692.84	282.43	5,779,197	5,779,197
Hotel	1,465.00	1,467.50	1067.50	2,676,188	2,676,188
Movie Theater (No Matinee)	1,068.87	1,068.87	1068.87	2,012,679	2,012,679
Quality Restaurant	1,060.35	1,112.40	850.65	1,231,038	1,231,038
Regional Shopping Center	10,140.15	11,798.86	5961.16	17,147,519	17,147,519
Total	16,924.97	16,140.48	9,230.62	28,846,620	28,846,620

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302
NaturalGas Unmitigated	0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Movie Theater (No Matinee)	2884.6	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304
Quality Restaurant	6986.71	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	3529.64	0.0381	0.3460	0.2907	2.0800e-003		0.0263	0.0263		0.0263	0.0263		415.2522	415.2522	7.9600e-003	7.6100e-003	417.7794
General Office Building	24531.4	0.2646	2.4050	2.0202	0.0144		0.1828	0.1828		0.1828	0.1828		2,866.0522	2,866.0522	0.0553	0.0529	2,903.6163
Hotel	37841.5	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					

Movie Theater (No Matinee)	2.8846	0.0311	0.2828	0.2376	1.7000e-003		0.0215	0.0215		0.0215	0.0215		339.3650	339.3650	6.5000e-003	6.2200e-003	341.4304
Quality Restaurant	6.98671	0.0754	0.6850	0.5754	4.1100e-003		0.0521	0.0521		0.0521	0.0521		821.9662	821.9662	0.0158	0.0151	826.9685
Regional Shopping Center	3.52964	0.0381	0.3460	0.2907	2.0800e-003		0.0263	0.0263		0.0263	0.0263		415.2522	415.2522	7.9600e-003	7.6100e-003	417.7794
General Office Building	24.5314	0.2646	2.4050	2.0202	0.0144		0.1828	0.1828		0.1828	0.1828		2,886.0522	2,886.0522	0.0553	0.0529	2,903.6163
Hotel	37.8415	0.4081	3.7100	3.1164	0.0223		0.2820	0.2820		0.2820	0.2820		4,451.9420	4,451.9420	0.0853	0.0816	4,479.0358
Total		0.8172	7.4288	6.2402	0.0446		0.5646	0.5646		0.5646	0.5646		8,914.5776	8,914.5776	0.1709	0.1634	8,968.8302

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Unmitigated	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Total	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1542					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.4300e-003	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343
Total	24.8086	9.3000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2223	0.2223	5.7000e-004		0.2343

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (Max. Commercial Scenario)

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	441.30	1000sqft	10.13	441,300.00	0
Hotel	250.00	Room	8.33	363,000.00	0
Movie Theater (No Matinee)	41.00	1000sqft	0.94	41,000.00	0
Quality Restaurant	15.00	1000sqft	0.34	15,000.00	0
Regional Shopping Center	268.40	1000sqft	6.16	268,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00

tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExterior	0	150
tblProjectCharacteristics	Value OperationalYear	2014	2035
tblVehicleTrips	ST_TR	2.37	1.57
tblVehicleTrips	ST_TR	8.19	5.87
tblVehicleTrips	ST_TR	80.00	26.07
tblVehicleTrips	ST_TR	94.36	74.16
tblVehicleTrips	ST_TR	49.97	43.96
tblVehicleTrips	SU_TR	0.98	0.64
tblVehicleTrips	SU_TR	5.95	4.27
tblVehicleTrips	SU_TR	80.00	26.07
tblVehicleTrips	SU_TR	72.16	56.71
tblVehicleTrips	SU_TR	25.24	22.21
tblVehicleTrips	WD_TR	11.01	7.23
tblVehicleTrips	WD_TR	8.17	5.86
tblVehicleTrips	WD_TR	80.00	26.07
tblVehicleTrips	WD_TR	89.95	70.69
tblVehicleTrips	WD_TR	42.94	37.78

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Area	4.5267	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Energy	0.1491	1.3558	1.1388	8.1300e-003		0.1030	0.1030		0.1030	0.1030	0.0000	5,355.8929	5,355.8929	0.2037	0.0634	5,379.8117
Mobile	12.4267	12.0400	58.0842	0.1720	10.8105	0.2808	11.0913	2.9066	0.2590	3.1656	0.0000	11,439.0428	11,439.0428	0.2776	0.0000	11,444.8722
Waste						0.0000	0.0000		0.0000	0.0000	218.5198	0.0000	218.5198	12.9142	0.0000	489.7169
Water						0.0000	0.0000		0.0000	0.0000	39.8710	261.2654	301.1364	4.1070	0.0991	418.1154
Total	17.1026	13.3959	59.2324	0.1802	10.8105	0.3839	11.1944	2.9066	0.3621	3.2687	258.3908	17,056.2192	17,314.6100	17.5025	0.1625	17,732.5353

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.5267	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Energy	0.1491	1.3558	1.1388	8.1300e-003		0.1030	0.1030		0.1030	0.1030	0.0000	5,355.8929	5,355.8929	0.2037	0.0634	5,379.8117
Mobile	12.4267	12.0400	58.0842	0.1720	10.8105	0.2808	11.0913	2.9066	0.2590	3.1656	0.0000	11,439.0428	11,439.0428	0.2776	0.0000	11,444.8722
Waste						0.0000	0.0000		0.0000	0.0000	218.5198	0.0000	218.5198	12.9142	0.0000	489.7169
Water						0.0000	0.0000		0.0000	0.0000	39.8710	261.2654	301.1364	4.1062	0.0990	418.0518
Total	17.1026	13.3959	59.2324	0.1802	10.8105	0.3839	11.1944	2.9066	0.3621	3.2687	258.3908	17,056.2192	17,314.6100	17.5017	0.1623	17,732.4717

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.2851e-003	0.0985	3.5872e-004

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.4267	12.0400	58.0842	0.1720	10.8105	0.2808	11.0913	2.9066	0.2590	3.1656	0.0000	11,439.0428	11,439.0428	0.2776	0.0000	11,444.8722
Unmitigated	12.4267	12.0400	58.0842	0.1720	10.8105	0.2808	11.0913	2.9066	0.2590	3.1656	0.0000	11,439.0428	11,439.0428	0.2776	0.0000	11,444.8722

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	3,190.60	692.84	282.43	5,779,197	5,779,197
Hotel	1,465.00	1,467.50	1067.50	2,676,188	2,676,188
Movie Theater (No Matinee)	1,068.87	1,068.87	1068.87	2,012,679	2,012,679
Quality Restaurant	1,060.35	1,112.40	850.65	1,231,038	1,231,038
Regional Shopping Center	10,140.15	11,798.86	5961.16	17,147,519	17,147,519
Total	16,924.97	16,140.48	9,230.62	28,846,620	28,846,620

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,879.9846	3,879.9846	0.1754	0.0363	3,894.9213
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,879.9846	3,879.9846	0.1754	0.0363	3,894.9213
NaturalGas Mitigated	0.1491	1.3558	1.1388	8.1300e-003		0.1030	0.1030		0.1030	0.1030	0.0000	1,475.9083	1,475.9083	0.0283	0.0271	1,484.8904
NaturalGas Unmitigated	0.1491	1.3558	1.1388	8.1300e-003		0.1030	0.1030		0.1030	0.1030	0.0000	1,475.9083	1,475.9083	0.0283	0.0271	1,484.8904

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Movie Theater (No Matinee)	1.05288e+006	5.6800e-003	0.0516	0.0434	3.1000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	56.1857	56.1857	1.0800e-003	1.0300e-003	56.5276
Quality Restaurant	2.55015e+006	0.0138	0.1250	0.1050	7.5000e-004		9.5000e-003	9.5000e-003		9.5000e-003	9.5000e-003	0.0000	136.0857	136.0857	2.6100e-003	2.4900e-003	136.9139
Regional Shopping Center	1.28832e+006	6.9500e-003	0.0632	0.0531	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	68.7497	68.7497	1.3200e-003	1.2600e-003	69.1681
General Office Building	8.95398e+006	0.0483	0.4389	0.3687	2.6300e-003		0.0334	0.0334		0.0334	0.0334	0.0000	477.8183	477.8183	9.1600e-003	8.7600e-003	480.7262
Hotel	1.38122e+007	0.0745	0.6771	0.5687	4.0600e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.0689	737.0689	0.0141	0.0135	741.5546

Total		0.1491	1.3558	1.1388	8.1300e-003		0.1030	0.1030		0.1030	0.1030	0.0000	1,475.9083	1,475.9083	0.0283	0.0271	1,484.8904
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Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Quality Restaurant	2.55015e+006	0.0138	0.1250	0.1050	7.5000e-004		9.5000e-003	9.5000e-003		9.5000e-003	9.5000e-003	0.0000	136.0857	136.0857	2.6100e-003	2.4900e-003	136.9139
Regional Shopping Center	1.28832e+006	6.9500e-003	0.0632	0.0531	3.8000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	68.7497	68.7497	1.3200e-003	1.2600e-003	69.1681
General Office Building	8.95398e+006	0.0483	0.4389	0.3687	2.6300e-003		0.0334	0.0334		0.0334	0.0334	0.0000	477.8183	477.8183	9.1600e-003	8.7600e-003	480.7262
Hotel	1.38122e+007	0.0745	0.6771	0.5687	4.0600e-003		0.0515	0.0515		0.0515	0.0515	0.0000	737.0689	737.0689	0.0141	0.0135	741.5546
Movie Theater (No Matinee)	1.05288e+006	5.6800e-003	0.0516	0.0434	3.1000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	56.1857	56.1857	1.0800e-003	1.0300e-003	56.5276
Total		0.1491	1.3558	1.1388	8.1300e-003		0.1030	0.1030		0.1030	0.1030	0.0000	1,475.9083	1,475.9083	0.0283	0.0271	1,484.8904

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6.12524e+006	1,781.9037	0.0806	0.0167	1,788.7635
Hotel	3.3033e+006	960.9679	0.0435	8.9900e-003	964.6673
Movie Theater (No Matinee)	339070	98.6394	4.4600e-003	9.2000e-004	99.0191
Quality Restaurant	453600	131.9574	5.9700e-003	1.2300e-003	132.4654
Regional Shopping Center	3.11612e+006	906.5162	0.0410	8.4800e-003	910.0060

Total		3,879.9846	0.1754	0.0363	3,894.9213
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Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6.12524e+006	1,781.9037	0.0806	0.0167	1,788.7635
Hotel	3.3033e+006	960.9679	0.0435	8.9900e-003	964.6673
Movie Theater (No Matinee)	339070	98.6394	4.4600e-003	9.2000e-004	99.0191
Quality Restaurant	453600	131.9574	5.9700e-003	1.2300e-003	132.4654
Regional Shopping Center	3.11612e+006	906.5162	0.0410	8.4800e-003	910.0060
Total		3,879.9846	0.1754	0.0363	3,894.9213

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5267	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Unmitigated	4.5267	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.5000e-004	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Total	4.5267	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.4081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.5000e-004	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191
Total	4.5267	8.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0182	0.0182	5.0000e-005	0.0000	0.0191

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
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Category	MT/yr			
Mitigated	301.1364	4.1062	0.0990	418.0518
Unmitigated	301.1364	4.1070	0.0991	418.1154

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	78.4339 / 48.0724	197.2948	2.5636	0.0620	270.3374
Hotel	6.34169 / 0.704632	12.7120	0.2071	4.9800e-003	18.6053
Movie Theater (No Matinee)	16.4657 / 1.051	32.2129	0.5378	0.0129	47.5113
Quality Restaurant	4.55301 / 0.290617	8.9074	0.1487	3.5700e-003	13.1376
Regional Shopping Center	19.8811 / 12.1852	50.0094	0.6498	0.0157	68.5239
Total		301.1364	4.1070	0.0991	418.1154

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	78.4339 / 48.0724	197.2948	2.5631	0.0619	270.2977
Hotel	6.34169 / 0.704632	12.7120	0.2071	4.9700e-003	18.6021

Movie Theater (No Matinee)	16.4657 / 1.051	32.2129	0.5377	0.0129	47.5030
Quality Restaurant	4.55301 / 0.290617	8.9074	0.1487	3.5700e-003	13.1353
Regional Shopping Center	19.8811 / 12.1852	50.0094	0.6497	0.0157	68.5138
Total		301.1364	4.1062	0.0990	418.0518

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	218.5198	12.9142	0.0000	489.7169
Unmitigated	218.5198	12.9142	0.0000	489.7169

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	410.41	83.3095	4.9235	0.0000	186.7020
Hotel	136.88	27.7854	1.6421	0.0000	62.2689
Movie Theater (No Matinee)	233.7	47.4390	2.8036	0.0000	106.3138

Quality Restaurant	13.69	2.7790	0.1642	0.0000	6.2278
Regional Shopping Center	281.82	57.2069	3.3808	0.0000	128.2044
Total		218.5198	12.9141	0.0000	489.7169

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	410.41	83.3095	4.9235	0.0000	186.7020
Hotel	136.88	27.7854	1.6421	0.0000	62.2689
Movie Theater (No Matinee)	233.7	47.4390	2.8036	0.0000	106.3138
Quality Restaurant	13.69	2.7790	0.1642	0.0000	6.2278
Regional Shopping Center	281.82	57.2069	3.3808	0.0000	128.2044
Total		218.5198	12.9141	0.0000	489.7169

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Jack London Square - 2013 Project Emissions (D & F2 Res.)
Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments High Rise	665.00	Dwelling Unit	2.18	665,000.00	1902

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	63
Climate Zone	5			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage of both Site D and F2 is approximately 2 acres based on footprints.

Vehicle Trips - Trip generation rates with incorporation of the 2000 BATS modal split adjustment factors.

Woodstoves - Assumes no fireplaces for the proposed residential dwelling units.

Area Coating - No reapplicaton of architectural coatings for building exteriors would be required.

Water And Wastewater - No septic tanks for project.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	250.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	250.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	250.00

tblAreaCoating	Area_EF_Nonresidential_Exterior	150	0
tblAreaCoating	Area_Residential_Exterior	448875	0
tblAreaCoating	ReapplicationRatePercent	10	3
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	0	150
tblFireplaces	FireplaceDayYear	4.29	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	92.40	0.00
tblFireplaces	NumberGas	365.75	0.00
tblFireplaces	NumberNoFireplace	206.15	0.00
tblFireplaces	NumberWood	93.10	0.00
tblLandUse	LotAcreage	10.73	2.18
tblProjectCharacteristics	OperationalYear	2014	2035
tblVehicleTrips	ST_TR	7.16	5.27
tblVehicleTrips	SU_TR	6.07	4.47
tblVehicleTrips	WD_TR	6.59	4.85
tblWater	AerobicPercent	87.46	92.62
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	7.38
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	3.33	0.00
tblWoodstoves	NumberNoncatalytic	3.33	0.00
tblWoodstoves	WoodstoveDayYear	10.82	0.00
tblWoodstoves	WoodstoveWoodMass	954.80	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Category	tons/yr										MT/yr					
Area	2.8379	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269
Energy	0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	1,013.6012	1,013.6012	0.0377	0.0123	1,018.2058
Mobile	1.1530	2.8325	13.0094	0.0426	2.7014	0.0687	2.7701	0.7263	0.0633	0.7897	0.0000	2,832.8902	2,832.8902	0.0678	0.0000	2,834.3141
Waste						0.0000	0.0000		0.0000	0.0000	62.0949	0.0000	62.0949	3.6697	0.0000	139.1588
Water						0.0000	0.0000		0.0000	0.0000	15.3293	96.0146	111.3440	1.2191	0.0342	147.5576
Total	4.0227	3.1605	18.0451	0.0446	2.7014	0.1180	2.8194	0.7263	0.1127	0.8390	77.4243	3,950.5717	4,027.9959	5.0019	0.0465	4,147.4632

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8379	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269
Energy	0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	1,013.6012	1,013.6012	0.0377	0.0123	1,018.2058
Mobile	1.1530	2.8325	13.0094	0.0426	2.7014	0.0687	2.7701	0.7263	0.0633	0.7897	0.0000	2,832.8902	2,832.8902	0.0678	0.0000	2,834.3141
Waste						0.0000	0.0000		0.0000	0.0000	62.0949	0.0000	62.0949	3.6697	0.0000	139.1588
Water						0.0000	0.0000		0.0000	0.0000	15.3293	96.0146	111.3440	1.2188	0.0342	147.5332
Total	4.0227	3.1605	18.0451	0.0446	2.7014	0.1180	2.8194	0.7263	0.1127	0.8390	77.4243	3,950.5717	4,027.9959	5.0017	0.0465	4,147.4388

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1530	2.8325	13.0094	0.0426	2.7014	0.0687	2.7701	0.7263	0.0633	0.7897	0.0000	2,832.8902	2,832.8902	0.0678	0.0000	2,834.3141
Unmitigated	1.1530	2.8325	13.0094	0.0426	2.7014	0.0687	2.7701	0.7263	0.0633	0.7897	0.0000	2,832.8902	2,832.8902	0.0678	0.0000	2,834.3141

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	3,225.25	3,504.55	2972.55	7,208,422	7,208,422
Total	3,225.25	3,504.55	2,972.55	7,208,422	7,208,422

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	12.40	4.30	5.40	26.10	29.10	44.80	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.534279	0.061728	0.163535	0.108433	0.030557	0.004584	0.021278	0.063079	0.001942	0.003382	0.005694	0.000164	0.001344

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	699.4116	699.4116	0.0316	6.5400e-003	702.1041
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	699.4116	699.4116	0.0316	6.5400e-003	702.1041
NaturalGas Mitigated	0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	314.1896	314.1896	6.0200e-003	5.7600e-003	316.1017
NaturalGas Unmitigated	0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	314.1896	314.1896	6.0200e-003	5.7600e-003	316.1017

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.88769e+006	0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	314.1896	314.1896	6.0200e-003	5.7600e-003	316.1017
Total		0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	314.1896	314.1896	6.0200e-003	5.7600e-003	316.1017

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.88769e+006	0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	314.1896	314.1896	6.0200e-003	5.7600e-003	316.1017
Total		0.0318	0.2713	0.1154	1.7300e-003		0.0219	0.0219		0.0219	0.0219	0.0000	314.1896	314.1896	6.0200e-003	5.7600e-003	316.1017

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.40421e+006	699.4116	0.0316	6.5400e-003	702.1041
Total		699.4116	0.0316	6.5400e-003	702.1041

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.40421e+006	699.4116	0.0316	6.5400e-003	702.1041
Total		699.4116	0.0316	6.5400e-003	702.1041

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8379	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269
Unmitigated	2.8379	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5972					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1471	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269
Total	2.8379	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5972					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1471	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269
Total	2.8379	0.0568	4.9204	2.6000e-004		0.0274	0.0274		0.0274	0.0274	0.0000	8.0657	8.0657	7.6800e-003	0.0000	8.2269

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	111.3440	1.2188	0.0342	147.5332
Unmitigated	111.3440	1.2191	0.0342	147.5576

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	43.3274 / 27.3151	111.3440	1.2191	0.0342	147.5576
Total		111.3440	1.2191	0.0342	147.5576

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	43.3274 / 27.3151	111.3440	1.2188	0.0342	147.5332
Total		111.3440	1.2188	0.0342	147.5332

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
--	-----------	-----	-----	------

	MT/yr			
Mitigated	62.0949	3.6697	0.0000	139.1588
Unmitigated	62.0949	3.6697	0.0000	139.1588

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	305.9	62.0949	3.6697	0.0000	139.1588
Total		62.0949	3.6697	0.0000	139.1588

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	305.9	62.0949	3.6697	0.0000	139.1588
Total		62.0949	3.6697	0.0000	139.1588

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

APPENDIX D

Health Risk Technical Data

Health Risk Assessment Technical Background

Construction

Construction Emission Estimates

The PM10 emission estimates were limited to exhaust PM10 emissions occurring onsite.

Construction Health Risk Results

Construction Health Risks												
				DPM Cancer Potency Factor (slope factor)	Cancer Risk (in a million)					DPM Chronic REL	DPM Chronic HI	
		Scenario	Modeled Concentrations (ug/m3)		3rd Tri-Birth	0 to 2	2 to 16	16 to 70	Total			PM2.5
		Site D	3.20E-02	1.10E+00	3.32E-07	5.69E-06	0.00E+00	0.00E+00	6.02E-06	5	0.0064	0.032
		Site F2	4.40E-02	1.10E+00	4.57E-07	7.82E-06	0.00E+00	0.00E+00	8.27E-06	5	0.0088	0.044
TOTALS								D	6.02	Per million		
								F2	8.27	Per million		

Cancer Risk Inputs								
Age Category	Daily Breathing Rate	Inhalation Absorption Rate	days/year	years		Average Time days	Child Risk Factor	Fraction of Time at Home
3rd tri - birth	361	1	262	0.3	1.00E-06	25550	10	0.85
0 to 2	1090	1	262	1.7	1.00E-06	25550	10	0.85
2 to 16	745	1	262	0	1.00E-06	25550	3	0.72
16 to 70	290	1	262	0	1.00E-06	25550	1	0.73

Operational

Train and Ferry Emission Estimates

Trains											
LOCOMOTIVE EMISSIONS											
	DPM emission factors (g/hr) - current										
					Throttle Notches						
					3	4	5	6	7	8	
	Model Number				15	20	30	40	40	40	mph
		GP-60			292.5	310.73	381.57	659.25	734.16	928.05	
		SD-70			229.83	298.26	388.58	603.96	880.88	1030	
		GP-40			226.38	258.5	336.03	551.88	638.64	821.34	
		GP-50			301.5	311.19	393.96	663.84	725.34	927.84	
		GP-38			186	212	267	417	463	608	
		Dash-9			232.4322	253.48	430.67	596.22	671.69	643.27	
		Dash-8			291.462	293.16	327.744	373.52	469.406	615.09	
		Dash-7			245	472.5	372	369	468	540	
		C60-A			337.9375	305.4352	500.4864	604.6515	713.461	1063.951	
		SD-90MACH			255.85	423.7	561.6	329.28	258.15	933.6	

I. 2007											
	A. AMTRAK TRAINS - DPM emissions (g/hr)										
					Throttle Notches						
	Model	fraction	# of trains	3	4	5	6	7	8		
	GP-60	0.2	7.6	2223	2361.548	2899.932	5010.3	5579.616	7053.18		
	GP-40	0.35	13.3	3010.854	3438.05	4469.199	7340.004	8493.912	10923.822		
	Dash-9	0.2	7.6	1766.4847	1926.4115	3273.0859	4531.2416	5104.8425	4888.8246		
	Dash-8	0.25	9.5	2768.889	2785.02	3113.568	3548.44	4459.357	5843.355		
	TOTAL	1	38	9,769.23	10,511.03	13,755.78	20,429.99	23,637.73	28,709.18		
	fraction of time in each throttle			0	0.2	0.50	0.15	0.10	0.05	1	
	TOTAL			0	2,102.21	6,877.89	3,064.50	2,363.77	1,435.46	15,843.83	g/hr/day
	distance (miles)		2								
	hours			0.03333	0.02500	0.01667	0.01250	0.01250	0.01250		
	TOTAL (AMTRAK)			0.00	52.56	114.63	38.31	29.55	17.94	252.98	grams/day
										0.56	lbs/day

	B. FREIGHT TRAINS - DPM emissions (g/hr)										
					Throttle Notches						
	Model	fraction	# of engines	3	4	5	6	7	8		
	GP-40	0.6	7.2	1629.936	1861.2	2419.416	3973.536	4598.208	5913.648		
	GP-38	0.2	2.4	446.4	508.8	640.8	1000.8	1111.2	1459.2		
	Dash-8	0.2	2.4	699.5088	703.584	786.5856	896.448	1126.5744	1476.216		
	<i>TOTAL</i>	<i>1</i>	<i>12</i>	<i>2,775.84</i>	<i>3,073.58</i>	<i>3,846.80</i>	<i>5,870.78</i>	<i>6,835.98</i>	<i>8,849.06</i>		
	fraction of time in each throttle			0	0.2	0.50	0.15	0.10	0.05	1	
	<i>TOTAL</i>			<i>0</i>	<i>614.72</i>	<i>1,923.40</i>	<i>880.62</i>	<i>683.60</i>	<i>442.45</i>	<i>4,544.79</i>	<i>g/hr</i>
	distance (miles)		2								
	hours			0.03333	0.02500	0.01667	0.01250	0.01250	0.01250		
	<i>TOTAL (Freight)</i>			<i>0.00</i>	<i>15.37</i>	<i>32.06</i>	<i>11.01</i>	<i>8.54</i>	<i>5.53</i>	<i>72.51</i>	<i>grams/day</i>
										<i>0.16</i>	<i>lbs/day</i>
								GRAND TOTAL		325.49	grams/day
										0.72	lbs/day
										261.92	lbs/year
										0.00377	grams/sec

Ferries

Source Tests	Peralta		Golden Gate		Mare Island		3-boat average		
	Idle-Neutral	Idle -Ahead	Idle-Neutral	Idle - Ahead	Idle-Neutral	Idle - Ahead	Idle-Neutral	Idle-Ahead	total
grams/engine/hr	10	40	5	32	6	8			
engines	2	2	2	2	2	2			
grams/hour	20	80	10	64	12	16			
hours/operation	0.08	0.08	0.08	0.08	0.08	0.08			
grams/operation	1.67	6.67	0.83	5.33	1.00	1.33	1.17	4.44	5.61
Average grams DPM/operation		5.61	<- Use This						
Operations/day		34.44							
grams PM10/day		193.27							
max hours/day		15							
seconds/day		54000							
grams/second weekday		0.00358	ratio						
grams/second weekend		0.00187	0.52						

Ferry Schedule (from San Francisco Bay Ferry:
<http://sanfranciscobayferry.com/>)

		Weekday to	weekend to	
6am-9:30pm	Ferry Bldg	13	9	9am- 11:30pm
	ssanfran	4		
	AT&T	0.2		
	totals	17.2	9	
		6am - 6pm		
	Total one- way	17.2	9	

Dispersion Modeling Results and Health Risk Calculations

Scenario	Modeled Concentrations (ug/m3)	DPM Cancer Potency Factor (slope factor)	Cancer Risk (in a million)					DPM Chronic REL	DPM Chronic HI	PM2.5 (µg/m³)
			3rd Tri-Birth	0 to 2	2 to 16	16 to 70	Total			
DPM - Site D Train	8.90E-02	1.10E+00	9.24E-07	1.86E-05	2.26E-05	1.15E-05	5.36E-05	5	0.0178	0.089
DPM - Site D Ferry	2.00E-02	1.10E+00	2.08E-07	4.18E-06	5.08E-06	2.58E-06	1.20E-05	5	0.004	0.020
DPM - Site F2 Train	4.70E-02	1.10E+00	4.88E-07	9.82E-06	1.19E-05	6.06E-06	2.83E-05	5	0.0094	0.047
DPM -Site F2 Ferry	5.00E-03	1.10E+00	5.19E-08	1.05E-06	1.27E-06	6.45E-07	3.01E-06	5	0.001	0.005

Cancer Risk Inputs								
Age Category	Daily Breathing Rate	Inhalation Absorption Rate	days/year	years		Average Time days	Child Risk Factor	Fraction of Time at Home
3rd tri - birth	361	1	262	0.3	1.00E-06	25550	10	0.85
0 to 2	1090	1	262	2	1.00E-06	25550	10	0.85
2 to 16	745	1	262	14	1.00E-06	25550	3	0.72
16 to 70	290	1	262	54	1.00E-06	25550	1	0.73

```

**
*****
**
** ISCST3 Input Produced by:
** AERMOD View Ver. 8.5.0
** Lakes Environmental Software Inc.
** Date: 3/20/2014
** File: C:\Lakes\AERMOD View\jls\jlscnst\jlscnst.INP
**
*****
**
**
*****
** ISCST3 Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\jls\jlscnst\jlscnst.isc
  MODELOPT DFAULT CONC  RURAL
  AVERTIME 1 PERIOD
  POLLUTID SO2
  TERRHGTS ELEV
  RUNORNOT RUN
  ERRORFIL jlscnst.err
CO FINISHED
**
*****
** ISCST3 Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION AREA1      AREA      563618.840  4183318.760      3.620
  LOCATION AREA2      AREA      564026.970  4183083.860     -0.360
** Source Parameters **

```

SRCPARAM AREA1	1.4532E-06	10.668	59.030	48.960	-67.203	0.000
SRCPARAM AREA2	1.2786E-06	10.668	69.950	46.960	-61.621	0.000

** Variable Emissions Type: "By Season / Hour / Day (SHRDOW)"

** Variable Emission Scenario: "Scenario 1"

** WeekDays:

** Winter

EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT AREA1	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

** Spring

EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT AREA1	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

** Summer

EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT AREA1	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

** Fall

EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT AREA1	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

** Saturday:

** Winter

EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

** Spring

EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

** Summer

EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Fall							
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Sunday:							
**	Winter							
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Spring							
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Summer							
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Fall							
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	WeekDays:							
**	Winter							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	AREA2	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Spring							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

EMISFACT	AREA2	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	AREA2	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Summer							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	AREA2	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Fall							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	AREA2	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Saturday:							
**	Winter							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Spring							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Summer							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Fall							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
**	Sunday:							
**	Winter							
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	AREA2	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0

```

    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Spring
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Summer
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Fall
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    EMISFACT AREA2      SHRDOW 0.0 0.0 0.0 0.0 0.0 0.0
    SRCGROUP SRCGP1     AREA1
    SRCGROUP SRCGP2     AREA2
    SRCGROUP ALL
SO FINISHED
**
*****
** ISCST3 Receptor Pathway
*****
**
**
RE STARTING
** DESCRREC "" ""
    DISCCART      564091.08    4183096.86    1.84
    DISCCART      564084.36    4183085.33    1.89
    DISCCART      564062.27    4183042.12    2.22
    DISCCART      564051.71    4183022.91    2.09
    DISCCART      564129.49    4183056.52    1.53
    DISCCART      564098.77    4183012.35    2.99
    DISCCART      564186.15    4183049.80    1.49
    DISCCART      564143.90    4182960.50    1.75
    DISCCART      564204.40    4183052.68    0.91

```

DISCCART	564174.63	4183025.79	1.29
DISCCART	563740.58	4183465.60	4.87
DISCCART	563752.10	4183450.24	4.21
DISCCART	563746.34	4183485.77	4.82
DISCCART	563758.83	4183500.17	5.01
DISCCART	563761.71	4183444.48	3.87
DISCCART	563761.71	4183482.89	4.65

RE FINISHED

**

** ISCST3 Meteorology Pathway

**

**

ME STARTING

INPUTFIL ..\POK98600.ASC

ANEMHGHT 10 METERS

SURFDATA 1805 1998

UAIRDATA 1805 1998

ME FINISHED

**

** ISCST3 Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 1 1ST

** Auto-Generated Plotfiles

PLOTFILE 1 ALL 1ST JLSCNST.IS\01H1GALL.PLT 31

PLOTFILE 1 SRCGP1 1ST JLSCNST.IS\01H1G001.PLT 32

PLOTFILE 1 SRCGP2 1ST JLSCNST.IS\01H1G002.PLT 33

PLOTFILE PERIOD ALL JLSCNST.IS\PE00GALL.PLT 34

PLOTFILE PERIOD SRCGP1 JLSCNST.IS\PE00G001.PLT 35

PLOTFILE PERIOD SRCGP2 JLSCNST.IS\PE00G002.PLT 36

OU FINISHED


```
*****  
*** SETUP Finishes Successfully ***  
*****
```

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**MODELOPTs:

PAGE 1

CONC RURAL ELEV DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- - - - -
- - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**NO GAS DRY DEPOSITION Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 2 Source(s); 3 Source Group(s); and 16 Receptor(s)

**The Model Assumes A Pollutant Type of: SO2

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit

Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: jlscnst.INP

**Output Print File: jlscnst.OUT

**Detailed Error/Message File: jlscnst.err

* * *

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```

**MODELOPTS:

```

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CONC

RURAL ELEV

DEFAULT

*** AREA SOURCE DATA ***

INIT.	NUMBER	EMISSION RATE	COORD (SW CORNER)		BASE	RELEASE	X-DIM	Y-DIM	ORIENT.
SOURCE	PART.	(GRAMS/SEC	X	Y	ELEV.	HEIGHT	OF AREA	OF AREA	OF AREA
SZ	SCALAR	VARY							
ID	CATS.	/METER**2)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(DEG.)
(METERS)	BY								

AREA1	0	0.14532E-05	563618.8	4183318.8	3.6	10.67	59.03	48.96	-67.20
0.00	SHRDOW								
AREA2	0	0.12786E-05	564027.0	4183083.8	-0.4	10.67	69.95	46.96	-61.62
0.00	SHRDOW								

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**MODELOPTs:

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CONC RURAL ELEV DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

SRCGP1 AREA1 ,

SRCGP2 AREA2 ,

ALL AREA1 , AREA2 ,

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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK
 (SHRDOWN) *

SOURCE ID = AREA1 ; SOURCE TYPE = AREA :

SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

1	2	3	4	5	6	7	8	9	10	11	12	13
---	---	---	---	---	---	---	---	---	----	----	----	----

SEASON = WINTER; DAY OF WEEK = WEEKDAY												
1	2	3	4	5	6	7	8	9	10	11	12	13
17	18	19	20	21	22	23	24					

SEASON = SPRING; DAY OF WEEK = WEEKDAY												
1	2	3	4	5	6	7	8	9	10	11	12	13
17	18	19	20	21	22	23	24					

SEASON = SUMMER; DAY OF WEEK = WEEKDAY												
1	2	3	4	5	6	7	8	9	10	11	12	13
17	18	19	20	21	22	23	24					

SEASON = FALL ; DAY OF WEEK = WEEKDAY

[illegible]

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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK
(SHRDOWN) *

SOURCE ID = AREA2 ; SOURCE TYPE = AREA :

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR	SCALAR

SEASON = WINTER; DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7											
.0000E+00	8	.1000E+01																					
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15											
.1000E+01	16	.0000E+00																					
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23											
.0000E+00	24	.0000E+00																					

SEASON = SPRING; DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7											
.0000E+00	8	.1000E+01																					
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15											
.1000E+01	16	.0000E+00																					
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23											
.0000E+00	24	.0000E+00																					

SEASON = SUMMER; DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7											
.0000E+00	8	.1000E+01																					
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15											
.1000E+01	16	.0000E+00																					
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23											
.0000E+00	24	.0000E+00																					

SEASON = FALL ; DAY OF WEEK = WEEKDAY

[illegible]

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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(564091.1, 4183096.8,	1.8,	0.0);	(564084.4, 4183085.2,	1.9,
0.0);				
(564062.2, 4183042.0,	2.2,	0.0);	(564051.7, 4183023.0,	2.1,
0.0);				
(564129.5, 4183056.5,	1.5,	0.0);	(564098.8, 4183012.2,	3.0,
0.0);				
(564186.1, 4183049.8,	1.5,	0.0);	(564143.9, 4182960.5,	1.8,
0.0);				
(564204.4, 4183052.8,	0.9,	0.0);	(564174.6, 4183025.8,	1.3,
0.0);				
(563740.6, 4183465.5,	4.9,	0.0);	(563752.1, 4183450.2,	4.2,
0.0);				
(563746.3, 4183485.8,	4.8,	0.0);	(563758.8, 4183500.2,	5.0,
0.0);				
(563761.7, 4183444.5,	3.9,	0.0);	(563761.7, 4183483.0,	4.7,
0.0);				

```
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**MODELOPTs:

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CONC

RURAL ELEV

DEFAULT

```
*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
      (1=YES; 0=NO)
```

[illegible]

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

6	STABILITY CATEGORY	WIND SPEED CATEGORY				
		1	2	3	4	5
.70000E-01	A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
.70000E-01	B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
.10000E+00	C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
.15000E+00	D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
.35000E+00	E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
.55000E+00	F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

6	STABILITY CATEGORY	WIND SPEED CATEGORY				
		1	2	3	4	5
.00000E+00	A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.20000E-01	E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01

.35000E-01	F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01
------------	---	------------	------------	------------	------------	------------

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**MODELOPTs:

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CONC RURAL ELEV DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: ..\POK98600.ASC

FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)

SURFACE STATION NO.: 1805

UPPER AIR STATION NO.: 1805

NAME: UNKNOWN

NAME: UNKNOWN

YEAR: 1998

YEAR: 1998

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
98	01	01	01	282.0	1.88	293.0	5	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	02	320.0	1.79	293.0	4	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	03	326.0	1.16	293.0	5	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	04	321.0	1.25	293.0	5	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	05	341.0	1.00	293.0	6	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	06	335.0	1.00	293.0	6	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	07	71.0	1.00	293.0	6	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	08	152.0	1.79	293.0	5	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	09	157.0	1.00	293.0	4	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	10	4.0	1.03	293.0	3	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	11	338.0	2.19	293.0	3	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	12	339.0	3.13	293.0	4	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	13	327.0	2.95	293.0	4	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	14	8.0	1.43	293.0	3	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	15	347.0	2.01	293.0	3	600.0 600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	16	2.0	3.84	293.0	3	600.0 600.0	0.0000	0.0	0.0000	0	0.00

98	01	01	17	6.0	4.74	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	18	5.0	5.59	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	19	325.0	3.04	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	20	311.0	2.77	293.0	5	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	21	315.0	3.13	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	22	327.0	3.17	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	23	332.0	4.38	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	24	321.0	4.56	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

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CONC RURAL ELEV DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP1 ***
INCLUDING SOURCE(S): AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
0.00727	564091.06	4183096.75	0.00697	564084.38	4183085.25
0.00715	564062.25	4183042.00	0.00757	564051.69	4183023.00
0.00657	564129.50	4183056.50	0.00625	564098.75	4183012.25
0.00533	564186.12	4183049.75	0.00508	564143.88	4182960.50
0.00543	564204.38	4183052.75	0.00472	564174.62	4183025.75
0.02389	563740.56	4183465.50	0.02034	563752.12	4183450.25
0.01516	563746.31	4183485.75	0.01723	563758.81	4183500.25
0.01654	563761.69	4183444.50	0.02567	563761.69	4183483.00

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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP2 ***
INCLUDING SOURCE(S): AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
0.03148	564091.06	4183096.75	0.03544	564084.38	4183085.25
0.01011	564062.25	4183042.00	0.01444	564051.69	4183023.00
0.01753	564129.50	4183056.50	0.03796	564098.75	4183012.25
0.01252	564186.12	4183049.75	0.03074	564143.88	4182960.50
0.03222	564204.38	4183052.75	0.02642	564174.62	4183025.75
0.00596	563740.56	4183465.50	0.00564	563752.12	4183450.25
0.00488	563746.31	4183485.75	0.00533	563758.81	4183500.25
0.00530	563761.69	4183444.50	0.00615	563761.69	4183483.00

*** ISCST3 - VERSION 02035 *** *** C:\Lakes\AERMOD View\jls\jlscnst\jlscnst.isc
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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: ALL ***

INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
0.03875	564091.06	4183096.75	0.04241	564084.38	4183085.25
0.01726	564062.25	4183042.00	0.02200	564051.69	4183023.00
0.02410	564129.50	4183056.50	0.04421	564098.75	4183012.25
0.01785	564186.12	4183049.75	0.03582	564143.88	4182960.50
0.03765	564204.38	4183052.75	0.03114	564174.62	4183025.75
0.02985	563740.56	4183465.50	0.02598	563752.12	4183450.25
0.02004	563746.31	4183485.75	0.02256	563758.81	4183500.25
0.02184	563761.69	4183444.50	0.03182	563761.69	4183483.00

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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP1 ***
INCLUDING SOURCE(S): AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

CONC	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)
0.79844	564091.06 (98121808)	4183096.75	0.96278	(98081308)	564084.38	4183085.25
1.43160	564062.25 (98082708)	4183042.00	1.61850	(98082708)	564051.69	4183023.00
1.50112	564129.50 (98082708)	4183056.50	0.73228	(98121808)	564098.75	4183012.25
1.23398	564186.12 (98082708)	4183049.75	0.77065	(98081308)	564143.88	4182960.50
0.66672	564204.38 (98121808)	4183052.75	0.80016	(98081308)	564174.62	4183025.75
1.93290	563740.56 (98070608)	4183465.50	3.01149	(98070608)	563752.12	4183450.25
3.19266	563746.31 (98050408)	4183485.75	3.13559	(98050408)	563758.81	4183500.25
3.17729	563761.69 (98070608)	4183444.50	1.90739	(98022011)	563761.69	4183483.00

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**MODELOPTs:

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CONC

RURAL ELEV

DEFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP2 ***
INCLUDING SOURCE(S): AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

CONC	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)
1.64838	564091.06	4183096.75	1.85433	(98112513)	564084.38	4183085.25
	(98123111)					
2.50326	564062.25	4183042.00	2.15109	(98122915)	564051.69	4183023.00
	(98010909)					
2.12744	564129.50	4183056.50	1.78651	(98101909)	564098.75	4183012.25
	(98123110)					
1.91248	564186.12	4183049.75	1.91358	(98112010)	564143.88	4182960.50
	(98122410)					
1.73842	564204.38	4183052.75	2.20744	(98112010)	564174.62	4183025.75
	(98042908)					
2.25039	563740.56	4183465.50	2.31003	(98110908)	563752.12	4183450.25
	(98110908)					
2.35179	563746.31	4183485.75	2.35306	(98111308)	563758.81	4183500.25
	(98012108)					
2.35301	563761.69	4183444.50	2.19128	(98110908)	563761.69	4183483.00
	(98012108)					

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CONC

RURAL ELEV

DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: ALL ***
INCLUDING SOURCE(S): AREA1 , AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

CONC	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)
1.83517	564091.06	4183096.75	1.87820	(98112513)	564084.38	4183085.25
	(98123111)					
2.50326	564062.25	4183042.00	2.15347	(98122915)	564051.69	4183023.00
	(98010909)					
2.12764	564129.50	4183056.50	2.14235	(98101909)	564098.75	4183012.25
	(98123110)					
1.95974	564186.12	4183049.75	2.61865	(98081308)	564143.88	4182960.50
	(98122410)					
2.02375	564204.38	4183052.75	2.61917	(98081308)	564174.62	4183025.75
	(98081308)					
2.25039	563740.56	4183465.50	3.01149	(98070608)	563752.12	4183450.25
	(98110908)					
3.19266	563746.31	4183485.75	3.13559	(98050408)	563758.81	4183500.25
	(98050408)					
3.17729	563761.69	4183444.50	2.19128	(98110908)	563761.69	4183483.00
	(98070608)					

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CONC

RURAL ELEV

DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

NETWORK

GROUP ID

AVERAGE CONC

RECEPTOR (XR, YR, ZELEV, ZFLAG) OF TYPE

GRID-ID

SRCGP1	1ST HIGHEST VALUE IS	0.02567 AT (	563761.69,	4183444.50,	3.87,	0.00)	DC
NA	2ND HIGHEST VALUE IS	0.02389 AT (	563752.12,	4183450.25,	4.21,	0.00)	DC
NA	3RD HIGHEST VALUE IS	0.02034 AT (	563740.56,	4183465.50,	4.87,	0.00)	DC
NA	4TH HIGHEST VALUE IS	0.01723 AT (	563746.31,	4183485.75,	4.82,	0.00)	DC
NA	5TH HIGHEST VALUE IS	0.01654 AT (	563761.69,	4183483.00,	4.65,	0.00)	DC
NA	6TH HIGHEST VALUE IS	0.01516 AT (	563758.81,	4183500.25,	5.01,	0.00)	DC
NA	7TH HIGHEST VALUE IS	0.00757 AT (	564062.25,	4183042.00,	2.22,	0.00)	DC
NA	8TH HIGHEST VALUE IS	0.00727 AT (	564084.38,	4183085.25,	1.89,	0.00)	DC
NA							

NA	9TH HIGHEST VALUE IS	0.00715 AT (	564051.69,	4183023.00,	2.09,	0.00)	DC
NA	10TH HIGHEST VALUE IS	0.00697 AT (	564091.06,	4183096.75,	1.84,	0.00)	DC
SRCGP2	1ST HIGHEST VALUE IS	0.03796 AT (	564129.50,	4183056.50,	1.53,	0.00)	DC
NA	2ND HIGHEST VALUE IS	0.03544 AT (	564091.06,	4183096.75,	1.84,	0.00)	DC
NA	3RD HIGHEST VALUE IS	0.03222 AT (	564174.62,	4183025.75,	1.29,	0.00)	DC
NA	4TH HIGHEST VALUE IS	0.03148 AT (	564084.38,	4183085.25,	1.89,	0.00)	DC
NA	5TH HIGHEST VALUE IS	0.03074 AT (	564186.12,	4183049.75,	1.49,	0.00)	DC
NA	6TH HIGHEST VALUE IS	0.02642 AT (	564204.38,	4183052.75,	0.91,	0.00)	DC
NA	7TH HIGHEST VALUE IS	0.01753 AT (	564098.75,	4183012.25,	2.99,	0.00)	DC
NA	8TH HIGHEST VALUE IS	0.01444 AT (	564062.25,	4183042.00,	2.22,	0.00)	DC
NA	9TH HIGHEST VALUE IS	0.01252 AT (	564143.88,	4182960.50,	1.75,	0.00)	DC
NA	10TH HIGHEST VALUE IS	0.01011 AT (	564051.69,	4183023.00,	2.09,	0.00)	DC
ALL	1ST HIGHEST VALUE IS	0.04421 AT (	564129.50,	4183056.50,	1.53,	0.00)	DC
NA	2ND HIGHEST VALUE IS	0.04241 AT (	564091.06,	4183096.75,	1.84,	0.00)	DC
NA	3RD HIGHEST VALUE IS	0.03875 AT (	564084.38,	4183085.25,	1.89,	0.00)	DC
NA	4TH HIGHEST VALUE IS	0.03765 AT (	564174.62,	4183025.75,	1.29,	0.00)	DC
NA	5TH HIGHEST VALUE IS	0.03582 AT (	564186.12,	4183049.75,	1.49,	0.00)	DC
NA	6TH HIGHEST VALUE IS	0.03182 AT (	563761.69,	4183444.50,	3.87,	0.00)	DC

NA	7TH HIGHEST VALUE IS	0.03114 AT (	564204.38,	4183052.75,	0.91,	0.00)	DC
NA	8TH HIGHEST VALUE IS	0.02985 AT (	563752.12,	4183450.25,	4.21,	0.00)	DC
NA	9TH HIGHEST VALUE IS	0.02598 AT (	563740.56,	4183465.50,	4.87,	0.00)	DC
NA	10TH HIGHEST VALUE IS	0.02410 AT (	564098.75,	4183012.25,	2.99,	0.00)	DC

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

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CONC

RURAL ELEV

DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF SO2 IN MICROGRAMS/M**3

**

NETWORK			DATE		RECEPTOR (XR, YR, ZELEV,		
GROUP ID	OF TYPE	GRID-ID	AVERAGE CONC	(YYMMDDHH)			
ZFLAG)							

SRCGP1	HIGH	1ST HIGH VALUE IS	3.19266	ON 98050408: AT (	563758.81,	4183500.25,	5.01,
0.00)	DC	NA					
SRCGP2	HIGH	1ST HIGH VALUE IS	2.50326	ON 98010909: AT (	564051.69,	4183023.00,	2.09,
0.00)	DC	NA					
ALL	HIGH	1ST HIGH VALUE IS	3.19266	ON 98050408: AT (	563758.81,	4183500.25,	5.01,
0.00)	DC	NA					

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 02035 *** *** C:\Lakes\AERMOD View\jls\jlscnst\jlscnst.isc
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**MODELOPTs:

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CONC RURAL ELEV DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 5 Informational Message(s)

A Total of 5 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
*** NONE ***

*** ISCST3 Finishes Successfully ***

```

**
*****
**
** ISCST3 Input Produced by:
** AERMOD View Ver. 8.5.0
** Lakes Environmental Software Inc.
** Date: 3/20/2014
** File: C:\Lakes\AERMOD View\jls\jls.INP
**
*****
**
**
*****
** ISCST3 Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\jls\jls.isc
  MODELOPT DFAULT CONC  RURAL
  AVERTIME 1 PERIOD
  POLLUTID CO
  TERRHGTS ELEV
  RUNORNOT RUN
  SAVEFILE jls.sv1 5
CO FINISHED
**
*****
** ISCST3 Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1

```

```

** DESCRSRC
** PREFIX
** Length of Side = 0.25
** Configuration = Adjacent
** Emission Rate = 0.003767
** Elevated
** Vertical Dimension = 20.00
** SZINIT = 4.65
** Nodes = 3
** 563249.438, 4183584.073, -0.65, 10.00, 0.12
** 564269.715, 4183066.849, 1.78, 10.00, 0.12
** 564411.420, 4183024.338, 1.76, 10.00, 0.12
** -----
LOCATION L0000001      VOLUME  563249.549 4183584.017 -0.64
LOCATION L0000002      VOLUME  563249.772 4183583.904 -0.64
LOCATION L0000003      VOLUME  563249.995 4183583.791 -0.47
LOCATION L0000004      VOLUME  563250.218 4183583.678 -0.46
LOCATION L0000005      VOLUME  563250.441 4183583.565 -0.43
LOCATION L0000006      VOLUME  563250.664 4183583.451 -0.41
LOCATION L0000007      VOLUME  563250.887 4183583.338 -0.39
LOCATION L0000008      VOLUME  563251.110 4183583.225 -0.37
LOCATION L0000009      VOLUME  563251.333 4183583.112 -0.34
LOCATION L0000010      VOLUME  563251.556 4183582.999 -0.33
LOCATION L0000011      VOLUME  563251.779 4183582.886 -0.32
LOCATION L0000012      VOLUME  563252.002 4183582.773 -0.29
LOCATION L0000013      VOLUME  563252.225 4183582.660 -0.28
LOCATION L0000014      VOLUME  563252.448 4183582.547 -0.25
LOCATION L0000015      VOLUME  563252.671 4183582.434 -0.24
LOCATION L0000016      VOLUME  563252.894 4183582.321 -0.21
LOCATION L0000017      VOLUME  563253.117 4183582.208 -0.20
LOCATION L0000018      VOLUME  563253.340 4183582.095 -0.17
LOCATION L0000019      VOLUME  563253.563 4183581.982 -0.16
LOCATION L0000020      VOLUME  563253.786 4183581.869 -0.13
LOCATION L0000021      VOLUME  563254.009 4183581.756 -0.12
LOCATION L0000022      VOLUME  563254.232 4183581.643 -0.11
LOCATION L0000023      VOLUME  563254.455 4183581.530 -0.08
LOCATION L0000024      VOLUME  563254.678 4183581.417 -0.07
LOCATION L0000025      VOLUME  563254.901 4183581.304 -0.04

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LOCATION	L0000026	VOLUME	563255.124	4183581.191	-0.03
LOCATION	L0000027	VOLUME	563255.347	4183581.078	-0.01
LOCATION	L0000028	VOLUME	563255.570	4183580.965	0.00
LOCATION	L0000029	VOLUME	563255.793	4183580.852	0.03
LOCATION	L0000030	VOLUME	563256.016	4183580.739	0.24
LOCATION	L0000031	VOLUME	563256.239	4183580.625	0.24
LOCATION	L0000032	VOLUME	563256.462	4183580.512	0.24
LOCATION	L0000033	VOLUME	563256.685	4183580.399	0.24
LOCATION	L0000034	VOLUME	563256.908	4183580.286	0.24
LOCATION	L0000035	VOLUME	563257.131	4183580.173	0.24
LOCATION	L0000036	VOLUME	563257.354	4183580.060	0.25
LOCATION	L0000037	VOLUME	563257.577	4183579.947	0.25
LOCATION	L0000038	VOLUME	563257.800	4183579.834	0.25
LOCATION	L0000039	VOLUME	563258.023	4183579.721	0.25
LOCATION	L0000040	VOLUME	563258.246	4183579.608	0.26
LOCATION	L0000041	VOLUME	563258.469	4183579.495	0.26
LOCATION	L0000042	VOLUME	563258.692	4183579.382	0.26
LOCATION	L0000043	VOLUME	563258.915	4183579.269	0.26
LOCATION	L0000044	VOLUME	563259.138	4183579.156	0.26
LOCATION	L0000045	VOLUME	563259.361	4183579.043	0.27
LOCATION	L0000046	VOLUME	563259.584	4183578.930	0.27
LOCATION	L0000047	VOLUME	563259.807	4183578.817	0.28
LOCATION	L0000048	VOLUME	563260.030	4183578.704	0.28
LOCATION	L0000049	VOLUME	563260.253	4183578.591	0.29
LOCATION	L0000050	VOLUME	563260.476	4183578.478	0.28
LOCATION	L0000051	VOLUME	563260.698	4183578.365	0.29
LOCATION	L0000052	VOLUME	563260.921	4183578.252	0.29
LOCATION	L0000053	VOLUME	563261.144	4183578.139	0.29
LOCATION	L0000054	VOLUME	563261.367	4183578.026	0.30
LOCATION	L0000055	VOLUME	563261.590	4183577.912	0.30
LOCATION	L0000056	VOLUME	563261.813	4183577.799	0.31
LOCATION	L0000057	VOLUME	563262.036	4183577.686	0.31
LOCATION	L0000058	VOLUME	563262.259	4183577.573	0.32
LOCATION	L0000059	VOLUME	563262.482	4183577.460	0.32
LOCATION	L0000060	VOLUME	563262.705	4183577.347	0.33
LOCATION	L0000061	VOLUME	563262.928	4183577.234	0.33
LOCATION	L0000062	VOLUME	563263.151	4183577.121	0.34
LOCATION	L0000063	VOLUME	563263.374	4183577.008	0.34

LOCATION	L0000064	VOLUME	563263.597	4183576.895	0.34
LOCATION	L0000065	VOLUME	563263.820	4183576.782	0.35
LOCATION	L0000066	VOLUME	563264.043	4183576.669	0.35
LOCATION	L0000067	VOLUME	563264.266	4183576.556	0.37
LOCATION	L0000068	VOLUME	563264.489	4183576.443	0.37
LOCATION	L0000069	VOLUME	563264.712	4183576.330	0.38
LOCATION	L0000070	VOLUME	563264.935	4183576.217	0.38
LOCATION	L0000071	VOLUME	563265.158	4183576.104	0.39
LOCATION	L0000072	VOLUME	563265.381	4183575.991	0.39
LOCATION	L0000073	VOLUME	563265.604	4183575.878	0.39
LOCATION	L0000074	VOLUME	563265.827	4183575.765	0.40
LOCATION	L0000075	VOLUME	563266.050	4183575.652	0.40
LOCATION	L0000076	VOLUME	563266.273	4183575.539	0.41
LOCATION	L0000077	VOLUME	563266.496	4183575.426	0.41
LOCATION	L0000078	VOLUME	563266.719	4183575.313	0.42
LOCATION	L0000079	VOLUME	563266.942	4183575.200	0.42
LOCATION	L0000080	VOLUME	563267.165	4183575.086	0.43
LOCATION	L0000081	VOLUME	563267.388	4183574.973	0.43
LOCATION	L0000082	VOLUME	563267.611	4183574.860	0.45
LOCATION	L0000083	VOLUME	563267.834	4183574.747	0.44
LOCATION	L0000084	VOLUME	563268.057	4183574.634	0.44
LOCATION	L0000085	VOLUME	563268.280	4183574.521	0.45
LOCATION	L0000086	VOLUME	563268.503	4183574.408	0.45
LOCATION	L0000087	VOLUME	563268.726	4183574.295	0.46
LOCATION	L0000088	VOLUME	563268.949	4183574.182	0.46
LOCATION	L0000089	VOLUME	563269.172	4183574.069	0.47
LOCATION	L0000090	VOLUME	563269.395	4183573.956	0.47
LOCATION	L0000091	VOLUME	563269.618	4183573.843	0.48
LOCATION	L0000092	VOLUME	563269.841	4183573.730	0.48
LOCATION	L0000093	VOLUME	563270.064	4183573.617	0.48
LOCATION	L0000094	VOLUME	563270.287	4183573.504	0.48
LOCATION	L0000095	VOLUME	563270.510	4183573.391	0.48
LOCATION	L0000096	VOLUME	563270.733	4183573.278	0.49
LOCATION	L0000097	VOLUME	563270.956	4183573.165	0.48
LOCATION	L0000098	VOLUME	563271.179	4183573.052	0.49
LOCATION	L0000099	VOLUME	563271.402	4183572.939	0.49
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LOCATION	L0000101	VOLUME	563271.848	4183572.713	0.49

LOCATION	L0000102	VOLUME	563272.071	4183572.600	0.49
LOCATION	L0000103	VOLUME	563272.294	4183572.487	0.49
LOCATION	L0000104	VOLUME	563272.517	4183572.374	0.49
LOCATION	L0000105	VOLUME	563272.740	4183572.260	0.49
LOCATION	L0000106	VOLUME	563272.963	4183572.147	0.48
LOCATION	L0000107	VOLUME	563273.186	4183572.034	0.49
LOCATION	L0000108	VOLUME	563273.409	4183571.921	0.48
LOCATION	L0000109	VOLUME	563273.632	4183571.808	0.48
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LOCATION	L0000111	VOLUME	563274.078	4183571.582	0.48
LOCATION	L0000112	VOLUME	563274.301	4183571.469	0.47
LOCATION	L0000113	VOLUME	563274.523	4183571.356	0.48
LOCATION	L0000114	VOLUME	563274.746	4183571.243	0.47
LOCATION	L0000115	VOLUME	563274.969	4183571.130	0.46
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LOCATION	L0000117	VOLUME	563275.415	4183570.904	0.45
LOCATION	L0000118	VOLUME	563275.638	4183570.791	0.45
LOCATION	L0000119	VOLUME	563275.861	4183570.678	0.44
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LOCATION	L0000121	VOLUME	563276.307	4183570.452	0.44
LOCATION	L0000122	VOLUME	563276.530	4183570.339	0.43
LOCATION	L0000123	VOLUME	563276.753	4183570.226	0.42
LOCATION	L0000124	VOLUME	563276.976	4183570.113	0.42
LOCATION	L0000125	VOLUME	563277.199	4183570.000	0.41
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LOCATION	L0000127	VOLUME	563277.645	4183569.774	0.40
LOCATION	L0000128	VOLUME	563277.868	4183569.661	0.39
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LOCATION	L0000130	VOLUME	563278.314	4183569.434	0.38
LOCATION	L0000131	VOLUME	563278.537	4183569.321	0.37
LOCATION	L0000132	VOLUME	563278.760	4183569.208	0.36
LOCATION	L0000133	VOLUME	563278.983	4183569.095	0.35
LOCATION	L0000134	VOLUME	563279.206	4183568.982	0.35
LOCATION	L0000135	VOLUME	563279.429	4183568.869	0.34
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LOCATION	L0000137	VOLUME	563279.875	4183568.643	0.32
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LOCATION	L0000139	VOLUME	563280.321	4183568.417	0.30

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LOCATION	L0000141	VOLUME	563280.767	4183568.191	0.28
LOCATION	L0000142	VOLUME	563280.990	4183568.078	0.27
LOCATION	L0000143	VOLUME	563281.213	4183567.965	0.26
LOCATION	L0000144	VOLUME	563281.436	4183567.852	0.25
LOCATION	L0000145	VOLUME	563281.659	4183567.739	0.24
LOCATION	L0000146	VOLUME	563281.882	4183567.626	0.23
LOCATION	L0000147	VOLUME	563282.105	4183567.513	0.22
LOCATION	L0000148	VOLUME	563282.328	4183567.400	0.21
LOCATION	L0000149	VOLUME	563282.551	4183567.287	0.20
LOCATION	L0000150	VOLUME	563282.774	4183567.174	0.20
LOCATION	L0000151	VOLUME	563282.997	4183567.061	0.19
LOCATION	L0000152	VOLUME	563283.220	4183566.948	0.18
LOCATION	L0000153	VOLUME	563283.443	4183566.835	0.17
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LOCATION	L0000155	VOLUME	563283.889	4183566.608	0.15
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LOCATION	L0000157	VOLUME	563284.335	4183566.382	0.14
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LOCATION	L0000159	VOLUME	563284.781	4183566.156	0.12
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LOCATION	L0000163	VOLUME	563285.673	4183565.704	0.10
LOCATION	L0000164	VOLUME	563285.896	4183565.591	0.09
LOCATION	L0000165	VOLUME	563286.119	4183565.478	0.08
LOCATION	L0000166	VOLUME	563286.342	4183565.365	0.08
LOCATION	L0000167	VOLUME	563286.565	4183565.252	0.07
LOCATION	L0000168	VOLUME	563286.788	4183565.139	0.07
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LOCATION	L0000170	VOLUME	563287.234	4183564.913	0.06
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LOCATION	L0000174	VOLUME	563288.126	4183564.461	0.04
LOCATION	L0000175	VOLUME	563288.348	4183564.348	0.03
LOCATION	L0000176	VOLUME	563288.571	4183564.235	0.03
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LOCATION	L0000178	VOLUME	563289.017	4183564.009	0.03
LOCATION	L0000179	VOLUME	563289.240	4183563.895	0.02
LOCATION	L0000180	VOLUME	563289.463	4183563.782	0.02
LOCATION	L0000181	VOLUME	563289.686	4183563.669	0.02
LOCATION	L0000182	VOLUME	563289.909	4183563.556	0.02
LOCATION	L0000183	VOLUME	563290.132	4183563.443	0.02
LOCATION	L0000184	VOLUME	563290.355	4183563.330	0.01
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LOCATION	L0000186	VOLUME	563290.801	4183563.104	0.01
LOCATION	L0000187	VOLUME	563291.024	4183562.991	0.01
LOCATION	L0000188	VOLUME	563291.247	4183562.878	0.01
LOCATION	L0000189	VOLUME	563291.470	4183562.765	0.01
LOCATION	L0000190	VOLUME	563291.693	4183562.652	0.01
LOCATION	L0000191	VOLUME	563291.916	4183562.539	0.01
LOCATION	L0000192	VOLUME	563292.139	4183562.426	0.01
LOCATION	L0000193	VOLUME	563292.362	4183562.313	0.01
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LOCATION	L0000195	VOLUME	563292.808	4183562.087	0.01
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LOCATION	L0000198	VOLUME	563293.477	4183561.748	0.02
LOCATION	L0000199	VOLUME	563293.700	4183561.635	0.02
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LOCATION	L0000201	VOLUME	563294.146	4183561.409	0.02
LOCATION	L0000202	VOLUME	563294.369	4183561.296	0.02
LOCATION	L0000203	VOLUME	563294.592	4183561.182	0.02
LOCATION	L0000204	VOLUME	563294.815	4183561.069	0.02
LOCATION	L0000205	VOLUME	563295.038	4183560.956	0.02
LOCATION	L0000206	VOLUME	563295.261	4183560.843	0.03
LOCATION	L0000207	VOLUME	563295.484	4183560.730	0.03
LOCATION	L0000208	VOLUME	563295.707	4183560.617	0.03
LOCATION	L0000209	VOLUME	563295.930	4183560.504	0.03
LOCATION	L0000210	VOLUME	563296.153	4183560.391	0.03
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LOCATION	L0000213	VOLUME	563296.822	4183560.052	0.04
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LOCATION	L0000216	VOLUME	563297.491	4183559.713	-0.05
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LOCATION	L0000229	VOLUME	563300.390	4183558.243	-0.10
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LOCATION	L0000234	VOLUME	563301.505	4183557.678	-0.12
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LOCATION	L0000236	VOLUME	563301.951	4183557.452	-0.13
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LOCATION	L0000243	VOLUME	563303.511	4183556.661	-0.16
LOCATION	L0000244	VOLUME	563303.734	4183556.548	-0.17
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LOCATION	L0000253	VOLUME	563305.741	4183555.530	0.00

LOCATION	L0000254	VOLUME	563305.964	4183555.417	0.00
LOCATION	L0000255	VOLUME	563306.187	4183555.304	0.00
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LOCATION	L0000259	VOLUME	563307.079	4183554.852	0.00
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LOCATION	L0000261	VOLUME	563307.525	4183554.626	0.00
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LOCATION	L0000264	VOLUME	563308.194	4183554.287	0.00
LOCATION	L0000265	VOLUME	563308.417	4183554.174	0.00
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LOCATION	L0000267	VOLUME	563308.863	4183553.948	0.00
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LOCATION	L0000269	VOLUME	563309.309	4183553.722	0.00
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LOCATION	L0000273	VOLUME	563310.201	4183553.270	0.00
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LOCATION	L0000275	VOLUME	563310.647	4183553.044	0.00
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LOCATION	L0000292	VOLUME	563314.438	4183551.122	0.00
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LOCATION	L0000295	VOLUME	563315.107	4183550.783	0.00
LOCATION	L0000296	VOLUME	563315.330	4183550.670	0.00
LOCATION	L0000297	VOLUME	563315.553	4183550.557	0.00
LOCATION	L0000298	VOLUME	563315.776	4183550.444	0.00
LOCATION	L0000299	VOLUME	563315.999	4183550.331	0.00
LOCATION	L0000300	VOLUME	563316.221	4183550.218	0.00
LOCATION	L0000301	VOLUME	563316.444	4183550.105	0.00
LOCATION	L0000302	VOLUME	563316.667	4183549.991	0.00
LOCATION	L0000303	VOLUME	563316.890	4183549.878	0.00
LOCATION	L0000304	VOLUME	563317.113	4183549.765	0.00
LOCATION	L0000305	VOLUME	563317.336	4183549.652	0.00
LOCATION	L0000306	VOLUME	563317.559	4183549.539	0.00
LOCATION	L0000307	VOLUME	563317.782	4183549.426	0.00
LOCATION	L0000308	VOLUME	563318.005	4183549.313	0.00
LOCATION	L0000309	VOLUME	563318.228	4183549.200	0.00
LOCATION	L0000310	VOLUME	563318.451	4183549.087	0.00
LOCATION	L0000311	VOLUME	563318.674	4183548.974	0.00
LOCATION	L0000312	VOLUME	563318.897	4183548.861	0.00
LOCATION	L0000313	VOLUME	563319.120	4183548.748	0.00
LOCATION	L0000314	VOLUME	563319.343	4183548.635	0.00
LOCATION	L0000315	VOLUME	563319.566	4183548.522	0.00
LOCATION	L0000316	VOLUME	563319.789	4183548.409	0.00
LOCATION	L0000317	VOLUME	563320.012	4183548.296	0.00
LOCATION	L0000318	VOLUME	563320.235	4183548.183	0.00
LOCATION	L0000319	VOLUME	563320.458	4183548.070	0.00
LOCATION	L0000320	VOLUME	563320.681	4183547.957	0.00
LOCATION	L0000321	VOLUME	563320.904	4183547.844	0.00
LOCATION	L0000322	VOLUME	563321.127	4183547.731	0.00
LOCATION	L0000323	VOLUME	563321.350	4183547.618	0.00
LOCATION	L0000324	VOLUME	563321.573	4183547.505	0.00
LOCATION	L0000325	VOLUME	563321.796	4183547.392	0.00
LOCATION	L0000326	VOLUME	563322.019	4183547.279	0.00
LOCATION	L0000327	VOLUME	563322.242	4183547.165	0.00
LOCATION	L0000328	VOLUME	563322.465	4183547.052	0.00
LOCATION	L0000329	VOLUME	563322.688	4183546.939	0.00

LOCATION	L0000330	VOLUME	563322.911	4183546.826	0.00
LOCATION	L0000331	VOLUME	563323.134	4183546.713	0.00
LOCATION	L0000332	VOLUME	563323.357	4183546.600	0.00
LOCATION	L0000333	VOLUME	563323.580	4183546.487	0.00
LOCATION	L0000334	VOLUME	563323.803	4183546.374	0.00
LOCATION	L0000335	VOLUME	563324.026	4183546.261	0.00
LOCATION	L0000336	VOLUME	563324.249	4183546.148	0.00
LOCATION	L0000337	VOLUME	563324.472	4183546.035	0.00
LOCATION	L0000338	VOLUME	563324.695	4183545.922	0.00
LOCATION	L0000339	VOLUME	563324.918	4183545.809	0.00
LOCATION	L0000340	VOLUME	563325.141	4183545.696	0.00
LOCATION	L0000341	VOLUME	563325.364	4183545.583	0.00
LOCATION	L0000342	VOLUME	563325.587	4183545.470	0.00
LOCATION	L0000343	VOLUME	563325.810	4183545.357	0.00
LOCATION	L0000344	VOLUME	563326.033	4183545.244	0.00
LOCATION	L0000345	VOLUME	563326.256	4183545.131	0.00
LOCATION	L0000346	VOLUME	563326.479	4183545.018	0.00
LOCATION	L0000347	VOLUME	563326.702	4183544.905	0.00
LOCATION	L0000348	VOLUME	563326.925	4183544.792	0.00
LOCATION	L0000349	VOLUME	563327.148	4183544.679	0.00
LOCATION	L0000350	VOLUME	563327.371	4183544.566	0.00
LOCATION	L0000351	VOLUME	563327.594	4183544.453	0.00
LOCATION	L0000352	VOLUME	563327.817	4183544.339	0.00
LOCATION	L0000353	VOLUME	563328.040	4183544.226	1.07
LOCATION	L0000354	VOLUME	563328.263	4183544.113	1.07
LOCATION	L0000355	VOLUME	563328.486	4183544.000	1.07
LOCATION	L0000356	VOLUME	563328.709	4183543.887	1.06
LOCATION	L0000357	VOLUME	563328.932	4183543.774	1.06
LOCATION	L0000358	VOLUME	563329.155	4183543.661	1.06
LOCATION	L0000359	VOLUME	563329.378	4183543.548	1.06
LOCATION	L0000360	VOLUME	563329.601	4183543.435	1.06
LOCATION	L0000361	VOLUME	563329.824	4183543.322	1.06
LOCATION	L0000362	VOLUME	563330.047	4183543.209	1.06
LOCATION	L0000363	VOLUME	563330.269	4183543.096	1.06
LOCATION	L0000364	VOLUME	563330.492	4183542.983	1.06
LOCATION	L0000365	VOLUME	563330.715	4183542.870	1.05
LOCATION	L0000366	VOLUME	563330.938	4183542.757	1.05
LOCATION	L0000367	VOLUME	563331.161	4183542.644	1.05

LOCATION	L0000368	VOLUME	563331.384	4183542.531	1.05
LOCATION	L0000369	VOLUME	563331.607	4183542.418	1.05
LOCATION	L0000370	VOLUME	563331.830	4183542.305	1.05
LOCATION	L0000371	VOLUME	563332.053	4183542.192	1.05
LOCATION	L0000372	VOLUME	563332.276	4183542.079	1.05
LOCATION	L0000373	VOLUME	563332.499	4183541.966	1.05
LOCATION	L0000374	VOLUME	563332.722	4183541.853	1.05
LOCATION	L0000375	VOLUME	563332.945	4183541.740	1.05
LOCATION	L0000376	VOLUME	563333.168	4183541.626	1.04
LOCATION	L0000377	VOLUME	563333.391	4183541.513	1.04
LOCATION	L0000378	VOLUME	563333.614	4183541.400	1.04
LOCATION	L0000379	VOLUME	563333.837	4183541.287	1.04
LOCATION	L0000380	VOLUME	563334.060	4183541.174	1.04
LOCATION	L0000381	VOLUME	563334.283	4183541.061	1.04
LOCATION	L0000382	VOLUME	563334.506	4183540.948	1.04
LOCATION	L0000383	VOLUME	563334.729	4183540.835	1.04
LOCATION	L0000384	VOLUME	563334.952	4183540.722	1.04
LOCATION	L0000385	VOLUME	563335.175	4183540.609	1.04
LOCATION	L0000386	VOLUME	563335.398	4183540.496	1.04
LOCATION	L0000387	VOLUME	563335.621	4183540.383	1.04
LOCATION	L0000388	VOLUME	563335.844	4183540.270	1.03
LOCATION	L0000389	VOLUME	563336.067	4183540.157	1.03
LOCATION	L0000390	VOLUME	563336.290	4183540.044	1.03
LOCATION	L0000391	VOLUME	563336.513	4183539.931	1.03
LOCATION	L0000392	VOLUME	563336.736	4183539.818	1.03
LOCATION	L0000393	VOLUME	563336.959	4183539.705	1.03
LOCATION	L0000394	VOLUME	563337.182	4183539.592	1.03
LOCATION	L0000395	VOLUME	563337.405	4183539.479	1.03
LOCATION	L0000396	VOLUME	563337.628	4183539.366	1.03
LOCATION	L0000397	VOLUME	563337.851	4183539.253	1.03
LOCATION	L0000398	VOLUME	563338.074	4183539.140	1.03
LOCATION	L0000399	VOLUME	563338.297	4183539.027	1.03
LOCATION	L0000400	VOLUME	563338.520	4183538.914	1.02
LOCATION	L0000401	VOLUME	563338.743	4183538.800	1.02
LOCATION	L0000402	VOLUME	563338.966	4183538.687	1.02
LOCATION	L0000403	VOLUME	563339.189	4183538.574	1.02
LOCATION	L0000404	VOLUME	563339.412	4183538.461	1.02
LOCATION	L0000405	VOLUME	563339.635	4183538.348	1.02

LOCATION	L0000406	VOLUME	563339.858	4183538.235	1.02
LOCATION	L0000407	VOLUME	563340.081	4183538.122	1.02
LOCATION	L0000408	VOLUME	563340.304	4183538.009	1.02
LOCATION	L0000409	VOLUME	563340.527	4183537.896	1.02
LOCATION	L0000410	VOLUME	563340.750	4183537.783	1.02
LOCATION	L0000411	VOLUME	563340.973	4183537.670	1.02
LOCATION	L0000412	VOLUME	563341.196	4183537.557	1.02
LOCATION	L0000413	VOLUME	563341.419	4183537.444	1.02
LOCATION	L0000414	VOLUME	563341.642	4183537.331	1.02
LOCATION	L0000415	VOLUME	563341.865	4183537.218	1.02
LOCATION	L0000416	VOLUME	563342.088	4183537.105	1.02
LOCATION	L0000417	VOLUME	563342.311	4183536.992	1.02
LOCATION	L0000418	VOLUME	563342.534	4183536.879	1.02
LOCATION	L0000419	VOLUME	563342.757	4183536.766	1.02
LOCATION	L0000420	VOLUME	563342.980	4183536.653	1.02
LOCATION	L0000421	VOLUME	563343.203	4183536.540	1.02
LOCATION	L0000422	VOLUME	563343.426	4183536.427	1.02
LOCATION	L0000423	VOLUME	563343.649	4183536.314	1.02
LOCATION	L0000424	VOLUME	563343.872	4183536.201	1.02
LOCATION	L0000425	VOLUME	563344.094	4183536.088	1.02
LOCATION	L0000426	VOLUME	563344.317	4183535.974	1.02
LOCATION	L0000427	VOLUME	563344.540	4183535.861	1.07
LOCATION	L0000428	VOLUME	563344.763	4183535.748	1.07
LOCATION	L0000429	VOLUME	563344.986	4183535.635	1.08
LOCATION	L0000430	VOLUME	563345.209	4183535.522	1.08
LOCATION	L0000431	VOLUME	563345.432	4183535.409	1.09
LOCATION	L0000432	VOLUME	563345.655	4183535.296	1.09
LOCATION	L0000433	VOLUME	563345.878	4183535.183	1.10
LOCATION	L0000434	VOLUME	563346.101	4183535.070	1.10
LOCATION	L0000435	VOLUME	563346.324	4183534.957	1.11
LOCATION	L0000436	VOLUME	563346.547	4183534.844	1.12
LOCATION	L0000437	VOLUME	563346.770	4183534.731	1.12
LOCATION	L0000438	VOLUME	563346.993	4183534.618	1.13
LOCATION	L0000439	VOLUME	563347.216	4183534.505	1.14
LOCATION	L0000440	VOLUME	563347.439	4183534.392	1.15
LOCATION	L0000441	VOLUME	563347.662	4183534.279	1.16
LOCATION	L0000442	VOLUME	563347.885	4183534.166	1.17
LOCATION	L0000443	VOLUME	563348.108	4183534.053	1.18

LOCATION	L0000444	VOLUME	563348.331	4183533.940	1.19
LOCATION	L0000445	VOLUME	563348.554	4183533.827	1.20
LOCATION	L0000446	VOLUME	563348.777	4183533.714	1.21
LOCATION	L0000447	VOLUME	563349.000	4183533.601	1.22
LOCATION	L0000448	VOLUME	563349.223	4183533.488	1.24
LOCATION	L0000449	VOLUME	563349.446	4183533.375	1.25
LOCATION	L0000450	VOLUME	563349.669	4183533.261	1.26
LOCATION	L0000451	VOLUME	563349.892	4183533.148	1.27
LOCATION	L0000452	VOLUME	563350.115	4183533.035	1.29
LOCATION	L0000453	VOLUME	563350.338	4183532.922	1.30
LOCATION	L0000454	VOLUME	563350.561	4183532.809	1.32
LOCATION	L0000455	VOLUME	563350.784	4183532.696	1.33
LOCATION	L0000456	VOLUME	563351.007	4183532.583	1.35
LOCATION	L0000457	VOLUME	563351.230	4183532.470	1.37
LOCATION	L0000458	VOLUME	563351.453	4183532.357	1.38
LOCATION	L0000459	VOLUME	563351.676	4183532.244	1.40
LOCATION	L0000460	VOLUME	563351.899	4183532.131	1.41
LOCATION	L0000461	VOLUME	563352.122	4183532.018	1.64
LOCATION	L0000462	VOLUME	563352.345	4183531.905	1.66
LOCATION	L0000463	VOLUME	563352.568	4183531.792	1.67
LOCATION	L0000464	VOLUME	563352.791	4183531.679	1.69
LOCATION	L0000465	VOLUME	563353.014	4183531.566	1.70
LOCATION	L0000466	VOLUME	563353.237	4183531.453	1.72
LOCATION	L0000467	VOLUME	563353.460	4183531.340	1.73
LOCATION	L0000468	VOLUME	563353.683	4183531.227	1.75
LOCATION	L0000469	VOLUME	563353.906	4183531.114	1.76
LOCATION	L0000470	VOLUME	563354.129	4183531.001	1.78
LOCATION	L0000471	VOLUME	563354.352	4183530.888	1.79
LOCATION	L0000472	VOLUME	563354.575	4183530.775	1.80
LOCATION	L0000473	VOLUME	563354.798	4183530.662	1.82
LOCATION	L0000474	VOLUME	563355.021	4183530.549	1.83
LOCATION	L0000475	VOLUME	563355.244	4183530.435	1.84
LOCATION	L0000476	VOLUME	563355.467	4183530.322	1.85
LOCATION	L0000477	VOLUME	563355.690	4183530.209	1.86
LOCATION	L0000478	VOLUME	563355.913	4183530.096	1.87
LOCATION	L0000479	VOLUME	563356.136	4183529.983	1.88
LOCATION	L0000480	VOLUME	563356.359	4183529.870	1.89
LOCATION	L0000481	VOLUME	563356.582	4183529.757	1.90

LOCATION	L0000482	VOLUME	563356.805	4183529.644	1.91
LOCATION	L0000483	VOLUME	563357.028	4183529.531	1.91
LOCATION	L0000484	VOLUME	563357.251	4183529.418	1.92
LOCATION	L0000485	VOLUME	563357.474	4183529.305	1.93
LOCATION	L0000486	VOLUME	563357.697	4183529.192	1.94
LOCATION	L0000487	VOLUME	563357.919	4183529.079	1.94
LOCATION	L0000488	VOLUME	563358.142	4183528.966	1.95
LOCATION	L0000489	VOLUME	563358.365	4183528.853	1.95
LOCATION	L0000490	VOLUME	563358.588	4183528.740	1.96
LOCATION	L0000491	VOLUME	563358.811	4183528.627	1.96
LOCATION	L0000492	VOLUME	563359.034	4183528.514	1.97
LOCATION	L0000493	VOLUME	563359.257	4183528.401	1.97
LOCATION	L0000494	VOLUME	563359.480	4183528.288	1.97
LOCATION	L0000495	VOLUME	563359.703	4183528.175	1.98
LOCATION	L0000496	VOLUME	563359.926	4183528.062	1.98
LOCATION	L0000497	VOLUME	563360.149	4183527.949	1.98
LOCATION	L0000498	VOLUME	563360.372	4183527.836	1.98
LOCATION	L0000499	VOLUME	563360.595	4183527.723	1.99
LOCATION	L0000500	VOLUME	563360.818	4183527.609	1.99
LOCATION	L0000501	VOLUME	563361.041	4183527.496	1.99
LOCATION	L0000502	VOLUME	563361.264	4183527.383	1.99
LOCATION	L0000503	VOLUME	563361.487	4183527.270	1.99
LOCATION	L0000504	VOLUME	563361.710	4183527.157	1.99
LOCATION	L0000505	VOLUME	563361.933	4183527.044	1.99
LOCATION	L0000506	VOLUME	563362.156	4183526.931	1.99
LOCATION	L0000507	VOLUME	563362.379	4183526.818	1.99
LOCATION	L0000508	VOLUME	563362.602	4183526.705	1.99
LOCATION	L0000509	VOLUME	563362.825	4183526.592	1.99
LOCATION	L0000510	VOLUME	563363.048	4183526.479	1.99
LOCATION	L0000511	VOLUME	563363.271	4183526.366	1.99
LOCATION	L0000512	VOLUME	563363.494	4183526.253	2.00
LOCATION	L0000513	VOLUME	563363.717	4183526.140	2.00
LOCATION	L0000514	VOLUME	563363.940	4183526.027	2.00
LOCATION	L0000515	VOLUME	563364.163	4183525.914	2.00
LOCATION	L0000516	VOLUME	563364.386	4183525.801	2.00
LOCATION	L0000517	VOLUME	563364.609	4183525.688	2.00
LOCATION	L0000518	VOLUME	563364.832	4183525.575	2.00
LOCATION	L0000519	VOLUME	563365.055	4183525.462	2.00

LOCATION	L0000520	VOLUME	563365.278	4183525.349	2.00
LOCATION	L0000521	VOLUME	563365.501	4183525.236	2.00
LOCATION	L0000522	VOLUME	563365.724	4183525.123	2.00
LOCATION	L0000523	VOLUME	563365.947	4183525.010	2.00
LOCATION	L0000524	VOLUME	563366.170	4183524.897	2.00
LOCATION	L0000525	VOLUME	563366.393	4183524.783	2.00
LOCATION	L0000526	VOLUME	563366.616	4183524.670	2.01
LOCATION	L0000527	VOLUME	563366.839	4183524.557	2.01
LOCATION	L0000528	VOLUME	563367.062	4183524.444	2.01
LOCATION	L0000529	VOLUME	563367.285	4183524.331	2.01
LOCATION	L0000530	VOLUME	563367.508	4183524.218	2.01
LOCATION	L0000531	VOLUME	563367.731	4183524.105	2.01
LOCATION	L0000532	VOLUME	563367.954	4183523.992	2.02
LOCATION	L0000533	VOLUME	563368.177	4183523.879	2.02
LOCATION	L0000534	VOLUME	563368.400	4183523.766	2.02
LOCATION	L0000535	VOLUME	563368.623	4183523.653	2.02
LOCATION	L0000536	VOLUME	563368.846	4183523.540	2.02
LOCATION	L0000537	VOLUME	563369.069	4183523.427	2.03
LOCATION	L0000538	VOLUME	563369.292	4183523.314	2.03
LOCATION	L0000539	VOLUME	563369.515	4183523.201	2.03
LOCATION	L0000540	VOLUME	563369.738	4183523.088	2.04
LOCATION	L0000541	VOLUME	563369.961	4183522.975	2.04
LOCATION	L0000542	VOLUME	563370.184	4183522.862	2.04
LOCATION	L0000543	VOLUME	563370.407	4183522.749	2.04
LOCATION	L0000544	VOLUME	563370.630	4183522.636	2.04
LOCATION	L0000545	VOLUME	563370.853	4183522.523	2.05
LOCATION	L0000546	VOLUME	563371.076	4183522.410	2.05
LOCATION	L0000547	VOLUME	563371.299	4183522.297	2.05
LOCATION	L0000548	VOLUME	563371.522	4183522.184	2.05
LOCATION	L0000549	VOLUME	563371.745	4183522.070	2.06
LOCATION	L0000550	VOLUME	563371.967	4183521.957	2.06
LOCATION	L0000551	VOLUME	563372.190	4183521.844	2.06
LOCATION	L0000552	VOLUME	563372.413	4183521.731	2.07
LOCATION	L0000553	VOLUME	563372.636	4183521.618	2.07
LOCATION	L0000554	VOLUME	563372.859	4183521.505	2.07
LOCATION	L0000555	VOLUME	563373.082	4183521.392	2.07
LOCATION	L0000556	VOLUME	563373.305	4183521.279	2.08
LOCATION	L0000557	VOLUME	563373.528	4183521.166	2.08

LOCATION	L0000558	VOLUME	563373.751	4183521.053	2.08
LOCATION	L0000559	VOLUME	563373.974	4183520.940	2.08
LOCATION	L0000560	VOLUME	563374.197	4183520.827	2.09
LOCATION	L0000561	VOLUME	563374.420	4183520.714	2.09
LOCATION	L0000562	VOLUME	563374.643	4183520.601	2.09
LOCATION	L0000563	VOLUME	563374.866	4183520.488	2.09
LOCATION	L0000564	VOLUME	563375.089	4183520.375	2.09
LOCATION	L0000565	VOLUME	563375.312	4183520.262	2.09
LOCATION	L0000566	VOLUME	563375.535	4183520.149	2.09
LOCATION	L0000567	VOLUME	563375.758	4183520.036	2.10
LOCATION	L0000568	VOLUME	563375.981	4183519.923	2.16
LOCATION	L0000569	VOLUME	563376.204	4183519.810	2.17
LOCATION	L0000570	VOLUME	563376.427	4183519.697	2.17
LOCATION	L0000571	VOLUME	563376.650	4183519.584	2.18
LOCATION	L0000572	VOLUME	563376.873	4183519.471	2.18
LOCATION	L0000573	VOLUME	563377.096	4183519.358	2.18
LOCATION	L0000574	VOLUME	563377.319	4183519.244	2.19
LOCATION	L0000575	VOLUME	563377.542	4183519.131	2.19
LOCATION	L0000576	VOLUME	563377.765	4183519.018	2.19
LOCATION	L0000577	VOLUME	563377.988	4183518.905	2.19
LOCATION	L0000578	VOLUME	563378.211	4183518.792	2.20
LOCATION	L0000579	VOLUME	563378.434	4183518.679	2.20
LOCATION	L0000580	VOLUME	563378.657	4183518.566	2.21
LOCATION	L0000581	VOLUME	563378.880	4183518.453	2.21
LOCATION	L0000582	VOLUME	563379.103	4183518.340	2.22
LOCATION	L0000583	VOLUME	563379.326	4183518.227	2.22
LOCATION	L0000584	VOLUME	563379.549	4183518.114	2.23
LOCATION	L0000585	VOLUME	563379.772	4183518.001	2.23
LOCATION	L0000586	VOLUME	563379.995	4183517.888	2.23
LOCATION	L0000587	VOLUME	563380.218	4183517.775	2.24
LOCATION	L0000588	VOLUME	563380.441	4183517.662	2.24
LOCATION	L0000589	VOLUME	563380.664	4183517.549	2.25
LOCATION	L0000590	VOLUME	563380.887	4183517.436	2.25
LOCATION	L0000591	VOLUME	563381.110	4183517.323	2.25
LOCATION	L0000592	VOLUME	563381.333	4183517.210	2.26
LOCATION	L0000593	VOLUME	563381.556	4183517.097	2.26
LOCATION	L0000594	VOLUME	563381.779	4183516.984	2.27
LOCATION	L0000595	VOLUME	563382.002	4183516.871	2.28

LOCATION	L0000596	VOLUME	563382.225	4183516.758	2.28
LOCATION	L0000597	VOLUME	563382.448	4183516.645	2.28
LOCATION	L0000598	VOLUME	563382.671	4183516.532	2.29
LOCATION	L0000599	VOLUME	563382.894	4183516.418	2.29
LOCATION	L0000600	VOLUME	563383.117	4183516.305	2.30
LOCATION	L0000601	VOLUME	563383.340	4183516.192	2.30
LOCATION	L0000602	VOLUME	563383.563	4183516.079	2.31
LOCATION	L0000603	VOLUME	563383.786	4183515.966	2.31
LOCATION	L0000604	VOLUME	563384.009	4183515.853	2.32
LOCATION	L0000605	VOLUME	563384.232	4183515.740	2.32
LOCATION	L0000606	VOLUME	563384.455	4183515.627	2.32
LOCATION	L0000607	VOLUME	563384.678	4183515.514	2.34
LOCATION	L0000608	VOLUME	563384.901	4183515.401	2.34
LOCATION	L0000609	VOLUME	563385.124	4183515.288	2.35
LOCATION	L0000610	VOLUME	563385.347	4183515.175	2.35
LOCATION	L0000611	VOLUME	563385.570	4183515.062	2.36
LOCATION	L0000612	VOLUME	563385.792	4183514.949	2.37
LOCATION	L0000613	VOLUME	563386.015	4183514.836	2.38
LOCATION	L0000614	VOLUME	563386.238	4183514.723	2.38
LOCATION	L0000615	VOLUME	563386.461	4183514.610	2.39
LOCATION	L0000616	VOLUME	563386.684	4183514.497	2.39
LOCATION	L0000617	VOLUME	563386.907	4183514.384	2.39
LOCATION	L0000618	VOLUME	563387.130	4183514.271	2.41
LOCATION	L0000619	VOLUME	563387.353	4183514.158	2.41
LOCATION	L0000620	VOLUME	563387.576	4183514.045	2.42
LOCATION	L0000621	VOLUME	563387.799	4183513.932	2.42
LOCATION	L0000622	VOLUME	563388.022	4183513.819	2.44
LOCATION	L0000623	VOLUME	563388.245	4183513.705	2.44
LOCATION	L0000624	VOLUME	563388.468	4183513.592	2.45
LOCATION	L0000625	VOLUME	563388.691	4183513.479	2.45
LOCATION	L0000626	VOLUME	563388.914	4183513.366	2.47
LOCATION	L0000627	VOLUME	563389.137	4183513.253	2.47
LOCATION	L0000628	VOLUME	563389.360	4183513.140	2.47
LOCATION	L0000629	VOLUME	563389.583	4183513.027	2.48
LOCATION	L0000630	VOLUME	563389.806	4183512.914	2.48
LOCATION	L0000631	VOLUME	563390.029	4183512.801	2.49
LOCATION	L0000632	VOLUME	563390.252	4183512.688	2.49
LOCATION	L0000633	VOLUME	563390.475	4183512.575	2.51

LOCATION	L0000634	VOLUME	563390.698	4183512.462	2.51
LOCATION	L0000635	VOLUME	563390.921	4183512.349	2.52
LOCATION	L0000636	VOLUME	563391.144	4183512.236	2.52
LOCATION	L0000637	VOLUME	563391.367	4183512.123	2.53
LOCATION	L0000638	VOLUME	563391.590	4183512.010	2.53
LOCATION	L0000639	VOLUME	563391.813	4183511.897	2.53
LOCATION	L0000640	VOLUME	563392.036	4183511.784	2.87
LOCATION	L0000641	VOLUME	563392.259	4183511.671	2.87
LOCATION	L0000642	VOLUME	563392.482	4183511.558	2.87
LOCATION	L0000643	VOLUME	563392.705	4183511.445	2.87
LOCATION	L0000644	VOLUME	563392.928	4183511.332	2.86
LOCATION	L0000645	VOLUME	563393.151	4183511.219	2.86
LOCATION	L0000646	VOLUME	563393.374	4183511.106	2.86
LOCATION	L0000647	VOLUME	563393.597	4183510.993	2.85
LOCATION	L0000648	VOLUME	563393.820	4183510.879	2.85
LOCATION	L0000649	VOLUME	563394.043	4183510.766	2.85
LOCATION	L0000650	VOLUME	563394.266	4183510.653	2.84
LOCATION	L0000651	VOLUME	563394.489	4183510.540	2.84
LOCATION	L0000652	VOLUME	563394.712	4183510.427	2.83
LOCATION	L0000653	VOLUME	563394.935	4183510.314	2.83
LOCATION	L0000654	VOLUME	563395.158	4183510.201	2.82
LOCATION	L0000655	VOLUME	563395.381	4183510.088	2.82
LOCATION	L0000656	VOLUME	563395.604	4183509.975	2.81
LOCATION	L0000657	VOLUME	563395.827	4183509.862	2.81
LOCATION	L0000658	VOLUME	563396.050	4183509.749	2.80
LOCATION	L0000659	VOLUME	563396.273	4183509.636	2.80
LOCATION	L0000660	VOLUME	563396.496	4183509.523	2.79
LOCATION	L0000661	VOLUME	563396.719	4183509.410	2.79
LOCATION	L0000662	VOLUME	563396.942	4183509.297	2.78
LOCATION	L0000663	VOLUME	563397.165	4183509.184	2.77
LOCATION	L0000664	VOLUME	563397.388	4183509.071	2.76
LOCATION	L0000665	VOLUME	563397.611	4183508.958	2.76
LOCATION	L0000666	VOLUME	563397.834	4183508.845	2.75
LOCATION	L0000667	VOLUME	563398.057	4183508.732	2.74
LOCATION	L0000668	VOLUME	563398.280	4183508.619	2.73
LOCATION	L0000669	VOLUME	563398.503	4183508.506	2.72
LOCATION	L0000670	VOLUME	563398.726	4183508.393	2.71
LOCATION	L0000671	VOLUME	563398.949	4183508.280	2.71

LOCATION	L0000672	VOLUME	563399.172	4183508.167	2.69
LOCATION	L0000673	VOLUME	563399.395	4183508.053	2.69
LOCATION	L0000674	VOLUME	563399.617	4183507.940	2.67
LOCATION	L0000675	VOLUME	563399.840	4183507.827	2.67
LOCATION	L0000676	VOLUME	563400.063	4183507.714	2.53
LOCATION	L0000677	VOLUME	563400.286	4183507.601	2.52
LOCATION	L0000678	VOLUME	563400.509	4183507.488	2.51
LOCATION	L0000679	VOLUME	563400.732	4183507.375	2.49
LOCATION	L0000680	VOLUME	563400.955	4183507.262	2.48
LOCATION	L0000681	VOLUME	563401.178	4183507.149	2.47
LOCATION	L0000682	VOLUME	563401.401	4183507.036	2.46
LOCATION	L0000683	VOLUME	563401.624	4183506.923	2.45
LOCATION	L0000684	VOLUME	563401.847	4183506.810	2.43
LOCATION	L0000685	VOLUME	563402.070	4183506.697	2.42
LOCATION	L0000686	VOLUME	563402.293	4183506.584	2.41
LOCATION	L0000687	VOLUME	563402.516	4183506.471	2.40
LOCATION	L0000688	VOLUME	563402.739	4183506.358	2.39
LOCATION	L0000689	VOLUME	563402.962	4183506.245	2.38
LOCATION	L0000690	VOLUME	563403.185	4183506.132	2.36
LOCATION	L0000691	VOLUME	563403.408	4183506.019	2.35
LOCATION	L0000692	VOLUME	563403.631	4183505.906	2.34
LOCATION	L0000693	VOLUME	563403.854	4183505.793	2.32
LOCATION	L0000694	VOLUME	563404.077	4183505.680	2.31
LOCATION	L0000695	VOLUME	563404.300	4183505.567	2.30
LOCATION	L0000696	VOLUME	563404.523	4183505.454	2.29
LOCATION	L0000697	VOLUME	563404.746	4183505.341	2.27
LOCATION	L0000698	VOLUME	563404.969	4183505.227	2.26
LOCATION	L0000699	VOLUME	563405.192	4183505.114	2.25
LOCATION	L0000700	VOLUME	563405.415	4183505.001	2.24
LOCATION	L0000701	VOLUME	563405.638	4183504.888	2.23
LOCATION	L0000702	VOLUME	563405.861	4183504.775	2.22
LOCATION	L0000703	VOLUME	563406.084	4183504.662	2.21
LOCATION	L0000704	VOLUME	563406.307	4183504.549	2.19
LOCATION	L0000705	VOLUME	563406.530	4183504.436	2.19
LOCATION	L0000706	VOLUME	563406.753	4183504.323	2.17
LOCATION	L0000707	VOLUME	563406.976	4183504.210	2.16
LOCATION	L0000708	VOLUME	563407.199	4183504.097	2.15
LOCATION	L0000709	VOLUME	563407.422	4183503.984	2.14

LOCATION	L0000710	VOLUME	563407.645	4183503.871	2.13
LOCATION	L0000711	VOLUME	563407.868	4183503.758	2.12
LOCATION	L0000712	VOLUME	563408.091	4183503.645	2.12
LOCATION	L0000713	VOLUME	563408.314	4183503.532	2.11
LOCATION	L0000714	VOLUME	563408.537	4183503.419	2.10
LOCATION	L0000715	VOLUME	563408.760	4183503.306	2.09
LOCATION	L0000716	VOLUME	563408.983	4183503.193	2.08
LOCATION	L0000717	VOLUME	563409.206	4183503.080	2.07
LOCATION	L0000718	VOLUME	563409.429	4183502.967	2.07
LOCATION	L0000719	VOLUME	563409.652	4183502.854	2.06
LOCATION	L0000720	VOLUME	563409.875	4183502.741	2.06
LOCATION	L0000721	VOLUME	563410.098	4183502.628	2.05
LOCATION	L0000722	VOLUME	563410.321	4183502.514	2.04
LOCATION	L0000723	VOLUME	563410.544	4183502.401	2.04
LOCATION	L0000724	VOLUME	563410.767	4183502.288	2.03
LOCATION	L0000725	VOLUME	563410.990	4183502.175	2.03
LOCATION	L0000726	VOLUME	563411.213	4183502.062	2.03
LOCATION	L0000727	VOLUME	563411.436	4183501.949	2.02
LOCATION	L0000728	VOLUME	563411.659	4183501.836	2.02
LOCATION	L0000729	VOLUME	563411.882	4183501.723	2.02
LOCATION	L0000730	VOLUME	563412.105	4183501.610	2.01
LOCATION	L0000731	VOLUME	563412.328	4183501.497	2.01
LOCATION	L0000732	VOLUME	563412.551	4183501.384	2.01
LOCATION	L0000733	VOLUME	563412.774	4183501.271	2.01
LOCATION	L0000734	VOLUME	563412.997	4183501.158	2.01
LOCATION	L0000735	VOLUME	563413.220	4183501.045	2.01
LOCATION	L0000736	VOLUME	563413.443	4183500.932	2.01
LOCATION	L0000737	VOLUME	563413.665	4183500.819	2.01
LOCATION	L0000738	VOLUME	563413.888	4183500.706	2.01
LOCATION	L0000739	VOLUME	563414.111	4183500.593	2.01
LOCATION	L0000740	VOLUME	563414.334	4183500.480	2.01
LOCATION	L0000741	VOLUME	563414.557	4183500.367	2.01
LOCATION	L0000742	VOLUME	563414.780	4183500.254	2.01
LOCATION	L0000743	VOLUME	563415.003	4183500.141	2.01
LOCATION	L0000744	VOLUME	563415.226	4183500.028	2.01
LOCATION	L0000745	VOLUME	563415.449	4183499.915	2.01
LOCATION	L0000746	VOLUME	563415.672	4183499.802	2.02
LOCATION	L0000747	VOLUME	563415.895	4183499.688	2.02

LOCATION	L0000748	VOLUME	563416.118	4183499.575	2.02
LOCATION	L0000749	VOLUME	563416.341	4183499.462	2.02
LOCATION	L0000750	VOLUME	563416.564	4183499.349	2.03
LOCATION	L0000751	VOLUME	563416.787	4183499.236	2.03
LOCATION	L0000752	VOLUME	563417.010	4183499.123	2.03
LOCATION	L0000753	VOLUME	563417.233	4183499.010	2.04
LOCATION	L0000754	VOLUME	563417.456	4183498.897	2.04
LOCATION	L0000755	VOLUME	563417.679	4183498.784	2.05
LOCATION	L0000756	VOLUME	563417.902	4183498.671	2.05
LOCATION	L0000757	VOLUME	563418.125	4183498.558	2.05
LOCATION	L0000758	VOLUME	563418.348	4183498.445	2.06
LOCATION	L0000759	VOLUME	563418.571	4183498.332	2.06
LOCATION	L0000760	VOLUME	563418.794	4183498.219	2.07
LOCATION	L0000761	VOLUME	563419.017	4183498.106	2.07
LOCATION	L0000762	VOLUME	563419.240	4183497.993	2.07
LOCATION	L0000763	VOLUME	563419.463	4183497.880	2.08
LOCATION	L0000764	VOLUME	563419.686	4183497.767	2.08
LOCATION	L0000765	VOLUME	563419.909	4183497.654	2.09
LOCATION	L0000766	VOLUME	563420.132	4183497.541	2.09
LOCATION	L0000767	VOLUME	563420.355	4183497.428	2.09
LOCATION	L0000768	VOLUME	563420.578	4183497.315	2.10
LOCATION	L0000769	VOLUME	563420.801	4183497.202	2.10
LOCATION	L0000770	VOLUME	563421.024	4183497.089	2.11
LOCATION	L0000771	VOLUME	563421.247	4183496.976	2.11
LOCATION	L0000772	VOLUME	563421.470	4183496.862	2.11
LOCATION	L0000773	VOLUME	563421.693	4183496.749	2.11
LOCATION	L0000774	VOLUME	563421.916	4183496.636	2.12
LOCATION	L0000775	VOLUME	563422.139	4183496.523	2.12
LOCATION	L0000776	VOLUME	563422.362	4183496.410	2.12
LOCATION	L0000777	VOLUME	563422.585	4183496.297	2.13
LOCATION	L0000778	VOLUME	563422.808	4183496.184	2.13
LOCATION	L0000779	VOLUME	563423.031	4183496.071	2.13
LOCATION	L0000780	VOLUME	563423.254	4183495.958	2.13
LOCATION	L0000781	VOLUME	563423.477	4183495.845	2.14
LOCATION	L0000782	VOLUME	563423.700	4183495.732	2.14
LOCATION	L0000783	VOLUME	563423.923	4183495.619	2.14
LOCATION	L0000784	VOLUME	563424.146	4183495.506	1.92
LOCATION	L0000785	VOLUME	563424.369	4183495.393	1.92

LOCATION	L0000786	VOLUME	563424.592	4183495.280	1.92
LOCATION	L0000787	VOLUME	563424.815	4183495.167	1.92
LOCATION	L0000788	VOLUME	563425.038	4183495.054	1.91
LOCATION	L0000789	VOLUME	563425.261	4183494.941	1.91
LOCATION	L0000790	VOLUME	563425.484	4183494.828	1.91
LOCATION	L0000791	VOLUME	563425.707	4183494.715	1.91
LOCATION	L0000792	VOLUME	563425.930	4183494.602	1.91
LOCATION	L0000793	VOLUME	563426.153	4183494.489	1.91
LOCATION	L0000794	VOLUME	563426.376	4183494.376	1.91
LOCATION	L0000795	VOLUME	563426.599	4183494.263	1.90
LOCATION	L0000796	VOLUME	563426.822	4183494.149	1.90
LOCATION	L0000797	VOLUME	563427.045	4183494.036	1.90
LOCATION	L0000798	VOLUME	563427.268	4183493.923	1.90
LOCATION	L0000799	VOLUME	563427.490	4183493.810	1.90
LOCATION	L0000800	VOLUME	563427.713	4183493.697	1.90
LOCATION	L0000801	VOLUME	563427.936	4183493.584	1.90
LOCATION	L0000802	VOLUME	563428.159	4183493.471	1.90
LOCATION	L0000803	VOLUME	563428.382	4183493.358	1.89
LOCATION	L0000804	VOLUME	563428.605	4183493.245	1.90
LOCATION	L0000805	VOLUME	563428.828	4183493.132	1.90
LOCATION	L0000806	VOLUME	563429.051	4183493.019	1.89
LOCATION	L0000807	VOLUME	563429.274	4183492.906	1.89
LOCATION	L0000808	VOLUME	563429.497	4183492.793	1.89
LOCATION	L0000809	VOLUME	563429.720	4183492.680	1.89
LOCATION	L0000810	VOLUME	563429.943	4183492.567	1.89
LOCATION	L0000811	VOLUME	563430.166	4183492.454	1.89
LOCATION	L0000812	VOLUME	563430.389	4183492.341	1.89
LOCATION	L0000813	VOLUME	563430.612	4183492.228	1.89
LOCATION	L0000814	VOLUME	563430.835	4183492.115	1.89
LOCATION	L0000815	VOLUME	563431.058	4183492.002	1.89
LOCATION	L0000816	VOLUME	563431.281	4183491.889	1.89
LOCATION	L0000817	VOLUME	563431.504	4183491.776	1.88
LOCATION	L0000818	VOLUME	563431.727	4183491.663	1.89
LOCATION	L0000819	VOLUME	563431.950	4183491.550	1.88
LOCATION	L0000820	VOLUME	563432.173	4183491.437	1.88
LOCATION	L0000821	VOLUME	563432.396	4183491.323	1.88
LOCATION	L0000822	VOLUME	563432.619	4183491.210	1.88
LOCATION	L0000823	VOLUME	563432.842	4183491.097	1.87

LOCATION	L0000824	VOLUME	563433.065	4183490.984	1.87
LOCATION	L0000825	VOLUME	563433.288	4183490.871	1.87
LOCATION	L0000826	VOLUME	563433.511	4183490.758	1.87
LOCATION	L0000827	VOLUME	563433.734	4183490.645	1.87
LOCATION	L0000828	VOLUME	563433.957	4183490.532	1.87
LOCATION	L0000829	VOLUME	563434.180	4183490.419	1.87
LOCATION	L0000830	VOLUME	563434.403	4183490.306	1.86
LOCATION	L0000831	VOLUME	563434.626	4183490.193	1.86
LOCATION	L0000832	VOLUME	563434.849	4183490.080	1.85
LOCATION	L0000833	VOLUME	563435.072	4183489.967	1.85
LOCATION	L0000834	VOLUME	563435.295	4183489.854	1.85
LOCATION	L0000835	VOLUME	563435.518	4183489.741	1.85
LOCATION	L0000836	VOLUME	563435.741	4183489.628	1.85
LOCATION	L0000837	VOLUME	563435.964	4183489.515	1.84
LOCATION	L0000838	VOLUME	563436.187	4183489.402	1.84
LOCATION	L0000839	VOLUME	563436.410	4183489.289	1.83
LOCATION	L0000840	VOLUME	563436.633	4183489.176	1.83
LOCATION	L0000841	VOLUME	563436.856	4183489.063	1.82
LOCATION	L0000842	VOLUME	563437.079	4183488.950	1.82
LOCATION	L0000843	VOLUME	563437.302	4183488.837	1.82
LOCATION	L0000844	VOLUME	563437.525	4183488.724	1.82
LOCATION	L0000845	VOLUME	563437.748	4183488.611	1.81
LOCATION	L0000846	VOLUME	563437.971	4183488.497	1.81
LOCATION	L0000847	VOLUME	563438.194	4183488.384	1.81
LOCATION	L0000848	VOLUME	563438.417	4183488.271	1.80
LOCATION	L0000849	VOLUME	563438.640	4183488.158	1.80
LOCATION	L0000850	VOLUME	563438.863	4183488.045	1.79
LOCATION	L0000851	VOLUME	563439.086	4183487.932	1.79
LOCATION	L0000852	VOLUME	563439.309	4183487.819	1.94
LOCATION	L0000853	VOLUME	563439.532	4183487.706	1.94
LOCATION	L0000854	VOLUME	563439.755	4183487.593	1.94
LOCATION	L0000855	VOLUME	563439.978	4183487.480	1.94
LOCATION	L0000856	VOLUME	563440.201	4183487.367	1.94
LOCATION	L0000857	VOLUME	563440.424	4183487.254	1.94
LOCATION	L0000858	VOLUME	563440.647	4183487.141	1.94
LOCATION	L0000859	VOLUME	563440.870	4183487.028	1.93
LOCATION	L0000860	VOLUME	563441.093	4183486.915	1.93
LOCATION	L0000861	VOLUME	563441.316	4183486.802	1.93

LOCATION	L0000862	VOLUME	563441.538	4183486.689	1.93
LOCATION	L0000863	VOLUME	563441.761	4183486.576	1.93
LOCATION	L0000864	VOLUME	563441.984	4183486.463	1.93
LOCATION	L0000865	VOLUME	563442.207	4183486.350	1.93
LOCATION	L0000866	VOLUME	563442.430	4183486.237	1.93
LOCATION	L0000867	VOLUME	563442.653	4183486.124	1.92
LOCATION	L0000868	VOLUME	563442.876	4183486.011	1.93
LOCATION	L0000869	VOLUME	563443.099	4183485.898	1.93
LOCATION	L0000870	VOLUME	563443.322	4183485.784	1.93
LOCATION	L0000871	VOLUME	563443.545	4183485.671	1.93
LOCATION	L0000872	VOLUME	563443.768	4183485.558	1.93
LOCATION	L0000873	VOLUME	563443.991	4183485.445	1.93
LOCATION	L0000874	VOLUME	563444.214	4183485.332	1.93
LOCATION	L0000875	VOLUME	563444.437	4183485.219	1.93
LOCATION	L0000876	VOLUME	563444.660	4183485.106	1.93
LOCATION	L0000877	VOLUME	563444.883	4183484.993	1.94
LOCATION	L0000878	VOLUME	563445.106	4183484.880	1.94
LOCATION	L0000879	VOLUME	563445.329	4183484.767	1.94
LOCATION	L0000880	VOLUME	563445.552	4183484.654	1.95
LOCATION	L0000881	VOLUME	563445.775	4183484.541	1.95
LOCATION	L0000882	VOLUME	563445.998	4183484.428	1.95
LOCATION	L0000883	VOLUME	563446.221	4183484.315	1.96
LOCATION	L0000884	VOLUME	563446.444	4183484.202	1.96
LOCATION	L0000885	VOLUME	563446.667	4183484.089	1.97
LOCATION	L0000886	VOLUME	563446.890	4183483.976	1.97
LOCATION	L0000887	VOLUME	563447.113	4183483.863	1.98
LOCATION	L0000888	VOLUME	563447.336	4183483.750	1.98
LOCATION	L0000889	VOLUME	563447.559	4183483.637	1.99
LOCATION	L0000890	VOLUME	563447.782	4183483.524	2.00
LOCATION	L0000891	VOLUME	563448.005	4183483.411	1.99
LOCATION	L0000892	VOLUME	563448.228	4183483.298	2.00
LOCATION	L0000893	VOLUME	563448.451	4183483.185	2.01
LOCATION	L0000894	VOLUME	563448.674	4183483.072	2.02
LOCATION	L0000895	VOLUME	563448.897	4183482.958	2.03
LOCATION	L0000896	VOLUME	563449.120	4183482.845	2.04
LOCATION	L0000897	VOLUME	563449.343	4183482.732	2.05
LOCATION	L0000898	VOLUME	563449.566	4183482.619	2.06
LOCATION	L0000899	VOLUME	563449.789	4183482.506	2.07

LOCATION	L0000900	VOLUME	563450.012	4183482.393	2.08
LOCATION	L0000901	VOLUME	563450.235	4183482.280	2.10
LOCATION	L0000902	VOLUME	563450.458	4183482.167	2.10
LOCATION	L0000903	VOLUME	563450.681	4183482.054	2.12
LOCATION	L0000904	VOLUME	563450.904	4183481.941	2.13
LOCATION	L0000905	VOLUME	563451.127	4183481.828	2.14
LOCATION	L0000906	VOLUME	563451.350	4183481.715	2.16
LOCATION	L0000907	VOLUME	563451.573	4183481.602	2.17
LOCATION	L0000908	VOLUME	563451.796	4183481.489	2.18
LOCATION	L0000909	VOLUME	563452.019	4183481.376	2.19
LOCATION	L0000910	VOLUME	563452.242	4183481.263	2.21
LOCATION	L0000911	VOLUME	563452.465	4183481.150	2.22
LOCATION	L0000912	VOLUME	563452.688	4183481.037	2.24
LOCATION	L0000913	VOLUME	563452.911	4183480.924	2.25
LOCATION	L0000914	VOLUME	563453.134	4183480.811	2.26
LOCATION	L0000915	VOLUME	563453.357	4183480.698	2.28
LOCATION	L0000916	VOLUME	563453.580	4183480.585	2.29
LOCATION	L0000917	VOLUME	563453.803	4183480.472	2.31
LOCATION	L0000918	VOLUME	563454.026	4183480.359	2.32
LOCATION	L0000919	VOLUME	563454.249	4183480.246	2.34
LOCATION	L0000920	VOLUME	563454.472	4183480.132	2.35
LOCATION	L0000921	VOLUME	563454.695	4183480.019	2.37
LOCATION	L0000922	VOLUME	563454.918	4183479.906	2.38
LOCATION	L0000923	VOLUME	563455.141	4183479.793	2.40
LOCATION	L0000924	VOLUME	563455.363	4183479.680	2.41
LOCATION	L0000925	VOLUME	563455.586	4183479.567	2.43
LOCATION	L0000926	VOLUME	563455.809	4183479.454	2.44
LOCATION	L0000927	VOLUME	563456.032	4183479.341	2.46
LOCATION	L0000928	VOLUME	563456.255	4183479.228	2.47
LOCATION	L0000929	VOLUME	563456.478	4183479.115	2.49
LOCATION	L0000930	VOLUME	563456.701	4183479.002	2.50
LOCATION	L0000931	VOLUME	563456.924	4183478.889	2.51
LOCATION	L0000932	VOLUME	563457.147	4183478.776	2.53
LOCATION	L0000933	VOLUME	563457.370	4183478.663	2.54
LOCATION	L0000934	VOLUME	563457.593	4183478.550	2.56
LOCATION	L0000935	VOLUME	563457.816	4183478.437	2.57
LOCATION	L0000936	VOLUME	563458.039	4183478.324	2.59
LOCATION	L0000937	VOLUME	563458.262	4183478.211	2.60

LOCATION	L0000938	VOLUME	563458.485	4183478.098	2.62
LOCATION	L0000939	VOLUME	563458.708	4183477.985	2.63
LOCATION	L0000940	VOLUME	563458.931	4183477.872	2.65
LOCATION	L0000941	VOLUME	563459.154	4183477.759	2.66
LOCATION	L0000942	VOLUME	563459.377	4183477.646	2.66
LOCATION	L0000943	VOLUME	563459.600	4183477.533	2.68
LOCATION	L0000944	VOLUME	563459.823	4183477.420	2.69
LOCATION	L0000945	VOLUME	563460.046	4183477.306	2.71
LOCATION	L0000946	VOLUME	563460.269	4183477.193	2.71
LOCATION	L0000947	VOLUME	563460.492	4183477.080	2.73
LOCATION	L0000948	VOLUME	563460.715	4183476.967	2.74
LOCATION	L0000949	VOLUME	563460.938	4183476.854	2.75
LOCATION	L0000950	VOLUME	563461.161	4183476.741	2.76
LOCATION	L0000951	VOLUME	563461.384	4183476.628	2.76
LOCATION	L0000952	VOLUME	563461.607	4183476.515	2.78
LOCATION	L0000953	VOLUME	563461.830	4183476.402	2.78
LOCATION	L0000954	VOLUME	563462.053	4183476.289	2.79
LOCATION	L0000955	VOLUME	563462.276	4183476.176	2.80
LOCATION	L0000956	VOLUME	563462.499	4183476.063	2.81
LOCATION	L0000957	VOLUME	563462.722	4183475.950	2.81
LOCATION	L0000958	VOLUME	563462.945	4183475.837	2.82
LOCATION	L0000959	VOLUME	563463.168	4183475.724	2.83
LOCATION	L0000960	VOLUME	563463.391	4183475.611	2.84
LOCATION	L0000961	VOLUME	563463.614	4183475.498	2.84
LOCATION	L0000962	VOLUME	563463.837	4183475.385	2.84
LOCATION	L0000963	VOLUME	563464.060	4183475.272	2.85
LOCATION	L0000964	VOLUME	563464.283	4183475.159	2.84
LOCATION	L0000965	VOLUME	563464.506	4183475.046	2.85
LOCATION	L0000966	VOLUME	563464.729	4183474.933	2.85
LOCATION	L0000967	VOLUME	563464.952	4183474.820	2.86
LOCATION	L0000968	VOLUME	563465.175	4183474.707	2.86
LOCATION	L0000969	VOLUME	563465.398	4183474.593	2.86
LOCATION	L0000970	VOLUME	563465.621	4183474.480	2.86
LOCATION	L0000971	VOLUME	563465.844	4183474.367	2.87
LOCATION	L0000972	VOLUME	563466.067	4183474.254	2.86
LOCATION	L0000973	VOLUME	563466.290	4183474.141	2.86
LOCATION	L0000974	VOLUME	563466.513	4183474.028	2.86
LOCATION	L0000975	VOLUME	563466.736	4183473.915	2.86

LOCATION	L0000976	VOLUME	563466.959	4183473.802	2.86
LOCATION	L0000977	VOLUME	563467.182	4183473.689	2.86
LOCATION	L0000978	VOLUME	563467.405	4183473.576	2.86
LOCATION	L0000979	VOLUME	563467.628	4183473.463	2.86
LOCATION	L0000980	VOLUME	563467.851	4183473.350	2.86
LOCATION	L0000981	VOLUME	563468.074	4183473.237	2.86
LOCATION	L0000982	VOLUME	563468.297	4183473.124	2.86
LOCATION	L0000983	VOLUME	563468.520	4183473.011	2.85
LOCATION	L0000984	VOLUME	563468.743	4183472.898	2.85
LOCATION	L0000985	VOLUME	563468.966	4183472.785	2.85
LOCATION	L0000986	VOLUME	563469.188	4183472.672	2.85
LOCATION	L0000987	VOLUME	563469.411	4183472.559	2.85
LOCATION	L0000988	VOLUME	563469.634	4183472.446	2.84
LOCATION	L0000989	VOLUME	563469.857	4183472.333	2.84
LOCATION	L0000990	VOLUME	563470.080	4183472.220	2.84
LOCATION	L0000991	VOLUME	563470.303	4183472.107	2.84
LOCATION	L0000992	VOLUME	563470.526	4183471.994	2.84
LOCATION	L0000993	VOLUME	563470.749	4183471.881	2.83
LOCATION	L0000994	VOLUME	563470.972	4183471.767	2.83
LOCATION	L0000995	VOLUME	563471.195	4183471.654	2.83
LOCATION	L0000996	VOLUME	563471.418	4183471.541	2.83
LOCATION	L0000997	VOLUME	563471.641	4183471.428	2.83
LOCATION	L0000998	VOLUME	563471.864	4183471.315	2.83
LOCATION	L0000999	VOLUME	563472.087	4183471.202	2.98
LOCATION	L0001000	VOLUME	563472.310	4183471.089	2.98
LOCATION	L0001001	VOLUME	563472.533	4183470.976	2.98
LOCATION	L0001002	VOLUME	563472.756	4183470.863	2.98
LOCATION	L0001003	VOLUME	563472.979	4183470.750	2.98
LOCATION	L0001004	VOLUME	563473.202	4183470.637	2.98
LOCATION	L0001005	VOLUME	563473.425	4183470.524	2.98
LOCATION	L0001006	VOLUME	563473.648	4183470.411	2.98
LOCATION	L0001007	VOLUME	563473.871	4183470.298	2.98
LOCATION	L0001008	VOLUME	563474.094	4183470.185	2.98
LOCATION	L0001009	VOLUME	563474.317	4183470.072	2.99
LOCATION	L0001010	VOLUME	563474.540	4183469.959	2.99
LOCATION	L0001011	VOLUME	563474.763	4183469.846	2.99
LOCATION	L0001012	VOLUME	563474.986	4183469.733	2.99
LOCATION	L0001013	VOLUME	563475.209	4183469.620	2.99

LOCATION	L0001014	VOLUME	563475.432	4183469.507	2.99
LOCATION	L0001015	VOLUME	563475.655	4183469.394	2.99
LOCATION	L0001016	VOLUME	563475.878	4183469.281	2.99
LOCATION	L0001017	VOLUME	563476.101	4183469.168	2.99
LOCATION	L0001018	VOLUME	563476.324	4183469.055	2.99
LOCATION	L0001019	VOLUME	563476.547	4183468.941	2.99
LOCATION	L0001020	VOLUME	563476.770	4183468.828	2.99
LOCATION	L0001021	VOLUME	563476.993	4183468.715	3.00
LOCATION	L0001022	VOLUME	563477.216	4183468.602	3.00
LOCATION	L0001023	VOLUME	563477.439	4183468.489	3.00
LOCATION	L0001024	VOLUME	563477.662	4183468.376	3.00
LOCATION	L0001025	VOLUME	563477.885	4183468.263	3.00
LOCATION	L0001026	VOLUME	563478.108	4183468.150	3.00
LOCATION	L0001027	VOLUME	563478.331	4183468.037	3.00
LOCATION	L0001028	VOLUME	563478.554	4183467.924	3.00
LOCATION	L0001029	VOLUME	563478.777	4183467.811	3.00
LOCATION	L0001030	VOLUME	563479.000	4183467.698	3.00
LOCATION	L0001031	VOLUME	563479.223	4183467.585	3.00
LOCATION	L0001032	VOLUME	563479.446	4183467.472	3.00
LOCATION	L0001033	VOLUME	563479.669	4183467.359	3.00
LOCATION	L0001034	VOLUME	563479.892	4183467.246	3.01
LOCATION	L0001035	VOLUME	563480.115	4183467.133	3.01
LOCATION	L0001036	VOLUME	563480.338	4183467.020	3.01
LOCATION	L0001037	VOLUME	563480.561	4183466.907	3.01
LOCATION	L0001038	VOLUME	563480.784	4183466.794	3.01
LOCATION	L0001039	VOLUME	563481.007	4183466.681	3.01
LOCATION	L0001040	VOLUME	563481.230	4183466.568	3.01
LOCATION	L0001041	VOLUME	563481.453	4183466.455	3.01
LOCATION	L0001042	VOLUME	563481.676	4183466.342	3.01
LOCATION	L0001043	VOLUME	563481.899	4183466.228	3.01
LOCATION	L0001044	VOLUME	563482.122	4183466.115	3.01
LOCATION	L0001045	VOLUME	563482.345	4183466.002	3.01
LOCATION	L0001046	VOLUME	563482.568	4183465.889	3.01
LOCATION	L0001047	VOLUME	563482.791	4183465.776	3.01
LOCATION	L0001048	VOLUME	563483.014	4183465.663	3.01
LOCATION	L0001049	VOLUME	563483.236	4183465.550	3.01
LOCATION	L0001050	VOLUME	563483.459	4183465.437	3.01
LOCATION	L0001051	VOLUME	563483.682	4183465.324	3.01

LOCATION	L0001052	VOLUME	563483.905	4183465.211	3.01
LOCATION	L0001053	VOLUME	563484.128	4183465.098	3.01
LOCATION	L0001054	VOLUME	563484.351	4183464.985	3.01
LOCATION	L0001055	VOLUME	563484.574	4183464.872	3.01
LOCATION	L0001056	VOLUME	563484.797	4183464.759	3.01
LOCATION	L0001057	VOLUME	563485.020	4183464.646	3.01
LOCATION	L0001058	VOLUME	563485.243	4183464.533	3.01
LOCATION	L0001059	VOLUME	563485.466	4183464.420	3.01
LOCATION	L0001060	VOLUME	563485.689	4183464.307	3.02
LOCATION	L0001061	VOLUME	563485.912	4183464.194	3.02
LOCATION	L0001062	VOLUME	563486.135	4183464.081	3.02
LOCATION	L0001063	VOLUME	563486.358	4183463.968	3.02
LOCATION	L0001064	VOLUME	563486.581	4183463.855	2.78
LOCATION	L0001065	VOLUME	563486.804	4183463.742	2.78
LOCATION	L0001066	VOLUME	563487.027	4183463.629	2.78
LOCATION	L0001067	VOLUME	563487.250	4183463.516	2.76
LOCATION	L0001068	VOLUME	563487.473	4183463.402	2.75
LOCATION	L0001069	VOLUME	563487.696	4183463.289	2.73
LOCATION	L0001070	VOLUME	563487.919	4183463.176	2.72
LOCATION	L0001071	VOLUME	563488.142	4183463.063	2.70
LOCATION	L0001072	VOLUME	563488.365	4183462.950	2.69
LOCATION	L0001073	VOLUME	563488.588	4183462.837	2.66
LOCATION	L0001074	VOLUME	563488.811	4183462.724	2.65
LOCATION	L0001075	VOLUME	563489.034	4183462.611	2.62
LOCATION	L0001076	VOLUME	563489.257	4183462.498	2.61
LOCATION	L0001077	VOLUME	563489.480	4183462.385	2.61
LOCATION	L0001078	VOLUME	563489.703	4183462.272	2.57
LOCATION	L0001079	VOLUME	563489.926	4183462.159	2.56
LOCATION	L0001080	VOLUME	563490.149	4183462.046	2.53
LOCATION	L0001081	VOLUME	563490.372	4183461.933	2.52
LOCATION	L0001082	VOLUME	563490.595	4183461.820	2.48
LOCATION	L0001083	VOLUME	563490.818	4183461.707	2.47
LOCATION	L0001084	VOLUME	563491.041	4183461.594	2.43
LOCATION	L0001085	VOLUME	563491.264	4183461.481	2.42
LOCATION	L0001086	VOLUME	563491.487	4183461.368	2.37
LOCATION	L0001087	VOLUME	563491.710	4183461.255	2.36
LOCATION	L0001088	VOLUME	563491.933	4183461.142	2.35
LOCATION	L0001089	VOLUME	563492.156	4183461.029	2.31

LOCATION	L0001090	VOLUME	563492.379	4183460.916	2.30
LOCATION	L0001091	VOLUME	563492.602	4183460.803	2.25
LOCATION	L0001092	VOLUME	563492.825	4183460.690	2.24
LOCATION	L0001093	VOLUME	563493.048	4183460.576	2.19
LOCATION	L0001094	VOLUME	563493.271	4183460.463	2.18
LOCATION	L0001095	VOLUME	563493.494	4183460.350	2.14
LOCATION	L0001096	VOLUME	563493.717	4183460.237	2.13
LOCATION	L0001097	VOLUME	563493.940	4183460.124	2.08
LOCATION	L0001098	VOLUME	563494.163	4183460.011	2.06
LOCATION	L0001099	VOLUME	563494.386	4183459.898	2.05
LOCATION	L0001100	VOLUME	563494.609	4183459.785	2.01
LOCATION	L0001101	VOLUME	563494.832	4183459.672	2.00
LOCATION	L0001102	VOLUME	563495.055	4183459.559	1.95
LOCATION	L0001103	VOLUME	563495.278	4183459.446	1.94
LOCATION	L0001104	VOLUME	563495.501	4183459.333	1.89
LOCATION	L0001105	VOLUME	563495.724	4183459.220	1.88
LOCATION	L0001106	VOLUME	563495.947	4183459.107	1.84
LOCATION	L0001107	VOLUME	563496.170	4183458.994	2.42
LOCATION	L0001108	VOLUME	563496.393	4183458.881	2.42
LOCATION	L0001109	VOLUME	563496.616	4183458.768	2.41
LOCATION	L0001110	VOLUME	563496.839	4183458.655	2.42
LOCATION	L0001111	VOLUME	563497.061	4183458.542	2.40
LOCATION	L0001112	VOLUME	563497.284	4183458.429	2.41
LOCATION	L0001113	VOLUME	563497.507	4183458.316	2.39
LOCATION	L0001114	VOLUME	563497.730	4183458.203	2.40
LOCATION	L0001115	VOLUME	563497.953	4183458.090	2.38
LOCATION	L0001116	VOLUME	563498.176	4183457.977	2.39
LOCATION	L0001117	VOLUME	563498.399	4183457.863	2.37
LOCATION	L0001118	VOLUME	563498.622	4183457.750	2.38
LOCATION	L0001119	VOLUME	563498.845	4183457.637	2.39
LOCATION	L0001120	VOLUME	563499.068	4183457.524	2.36
LOCATION	L0001121	VOLUME	563499.291	4183457.411	2.37
LOCATION	L0001122	VOLUME	563499.514	4183457.298	2.34
LOCATION	L0001123	VOLUME	563499.737	4183457.185	2.35
LOCATION	L0001124	VOLUME	563499.960	4183457.072	2.32
LOCATION	L0001125	VOLUME	563500.183	4183456.959	2.33
LOCATION	L0001126	VOLUME	563500.406	4183456.846	2.30
LOCATION	L0001127	VOLUME	563500.629	4183456.733	2.31

LOCATION	L0001128	VOLUME	563500.852	4183456.620	2.28
LOCATION	L0001129	VOLUME	563501.075	4183456.507	2.28
LOCATION	L0001130	VOLUME	563501.298	4183456.394	2.29
LOCATION	L0001131	VOLUME	563501.521	4183456.281	2.26
LOCATION	L0001132	VOLUME	563501.744	4183456.168	2.26
LOCATION	L0001133	VOLUME	563501.967	4183456.055	2.23
LOCATION	L0001134	VOLUME	563502.190	4183455.942	2.23
LOCATION	L0001135	VOLUME	563502.413	4183455.829	2.20
LOCATION	L0001136	VOLUME	563502.636	4183455.716	2.20
LOCATION	L0001137	VOLUME	563502.859	4183455.603	2.16
LOCATION	L0001138	VOLUME	563503.082	4183455.490	2.16
LOCATION	L0001139	VOLUME	563503.305	4183455.377	2.17
LOCATION	L0001140	VOLUME	563503.528	4183455.264	2.13
LOCATION	L0001141	VOLUME	563503.751	4183455.151	2.13
LOCATION	L0001142	VOLUME	563503.974	4183455.037	2.09
LOCATION	L0001143	VOLUME	563504.197	4183454.924	2.09
LOCATION	L0001144	VOLUME	563504.420	4183454.811	2.04
LOCATION	L0001145	VOLUME	563504.643	4183454.698	2.04
LOCATION	L0001146	VOLUME	563504.866	4183454.585	2.00
LOCATION	L0001147	VOLUME	563505.089	4183454.472	2.00
LOCATION	L0001148	VOLUME	563505.312	4183454.359	1.95
LOCATION	L0001149	VOLUME	563505.535	4183454.246	1.95
LOCATION	L0001150	VOLUME	563505.758	4183454.133	1.95
LOCATION	L0001151	VOLUME	563505.981	4183454.020	1.90
LOCATION	L0001152	VOLUME	563506.204	4183453.907	1.90
LOCATION	L0001153	VOLUME	563506.427	4183453.794	1.85
LOCATION	L0001154	VOLUME	563506.650	4183453.681	1.85
LOCATION	L0001155	VOLUME	563506.873	4183453.568	1.79
LOCATION	L0001156	VOLUME	563507.096	4183453.455	1.79
LOCATION	L0001157	VOLUME	563507.319	4183453.342	1.74
LOCATION	L0001158	VOLUME	563507.542	4183453.229	1.73
LOCATION	L0001159	VOLUME	563507.765	4183453.116	1.68
LOCATION	L0001160	VOLUME	563507.988	4183453.003	1.68
LOCATION	L0001161	VOLUME	563508.211	4183452.890	1.68
LOCATION	L0001162	VOLUME	563508.434	4183452.777	1.62
LOCATION	L0001163	VOLUME	563508.657	4183452.664	1.62
LOCATION	L0001164	VOLUME	563508.880	4183452.551	1.56
LOCATION	L0001165	VOLUME	563509.103	4183452.438	1.56

LOCATION	L0001166	VOLUME	563509.326	4183452.325	1.50
LOCATION	L0001167	VOLUME	563509.549	4183452.211	1.50
LOCATION	L0001168	VOLUME	563509.772	4183452.098	1.44
LOCATION	L0001169	VOLUME	563509.995	4183451.985	1.44
LOCATION	L0001170	VOLUME	563510.218	4183451.872	1.38
LOCATION	L0001171	VOLUME	563510.441	4183451.759	1.38
LOCATION	L0001172	VOLUME	563510.664	4183451.646	1.38
LOCATION	L0001173	VOLUME	563510.886	4183451.533	1.33
LOCATION	L0001174	VOLUME	563511.109	4183451.420	1.33
LOCATION	L0001175	VOLUME	563511.332	4183451.307	1.27
LOCATION	L0001176	VOLUME	563511.555	4183451.194	1.27
LOCATION	L0001177	VOLUME	563511.778	4183451.081	1.22
LOCATION	L0001178	VOLUME	563512.001	4183450.968	1.22
LOCATION	L0001179	VOLUME	563512.224	4183450.855	1.17
LOCATION	L0001180	VOLUME	563512.447	4183450.742	1.17
LOCATION	L0001181	VOLUME	563512.670	4183450.629	1.17
LOCATION	L0001182	VOLUME	563512.893	4183450.516	1.12
LOCATION	L0001183	VOLUME	563513.116	4183450.403	1.12
LOCATION	L0001184	VOLUME	563513.339	4183450.290	1.07
LOCATION	L0001185	VOLUME	563513.562	4183450.177	1.08
LOCATION	L0001186	VOLUME	563513.785	4183450.064	1.03
LOCATION	L0001187	VOLUME	563514.008	4183449.951	1.04
LOCATION	L0001188	VOLUME	563514.231	4183449.838	0.99
LOCATION	L0001189	VOLUME	563514.454	4183449.725	1.00
LOCATION	L0001190	VOLUME	563514.677	4183449.612	0.96
LOCATION	L0001191	VOLUME	563514.900	4183449.499	0.96
LOCATION	L0001192	VOLUME	563515.123	4183449.385	0.97
LOCATION	L0001193	VOLUME	563515.346	4183449.272	0.93
LOCATION	L0001194	VOLUME	563515.569	4183449.159	0.93
LOCATION	L0001195	VOLUME	563515.792	4183449.046	0.90
LOCATION	L0001196	VOLUME	563516.015	4183448.933	0.91
LOCATION	L0001197	VOLUME	563516.238	4183448.820	0.87
LOCATION	L0001198	VOLUME	563516.461	4183448.707	0.88
LOCATION	L0001199	VOLUME	563516.684	4183448.594	0.85
LOCATION	L0001200	VOLUME	563516.907	4183448.481	0.86
LOCATION	L0001201	VOLUME	563517.130	4183448.368	0.83
LOCATION	L0001202	VOLUME	563517.353	4183448.255	0.84
LOCATION	L0001203	VOLUME	563517.576	4183448.142	0.85

LOCATION	L0001204	VOLUME	563517.799	4183448.029	0.82
LOCATION	L0001205	VOLUME	563518.022	4183447.916	0.83
LOCATION	L0001206	VOLUME	563518.245	4183447.803	0.81
LOCATION	L0001207	VOLUME	563518.468	4183447.690	0.81
LOCATION	L0001208	VOLUME	563518.691	4183447.577	0.79
LOCATION	L0001209	VOLUME	563518.914	4183447.464	0.80
LOCATION	L0001210	VOLUME	563519.137	4183447.351	0.78
LOCATION	L0001211	VOLUME	563519.360	4183447.238	0.79
LOCATION	L0001212	VOLUME	563519.583	4183447.125	0.77
LOCATION	L0001213	VOLUME	563519.806	4183447.012	0.79
LOCATION	L0001214	VOLUME	563520.029	4183446.899	3.01
LOCATION	L0001215	VOLUME	563520.252	4183446.786	2.98
LOCATION	L0001216	VOLUME	563520.475	4183446.672	2.97
LOCATION	L0001217	VOLUME	563520.698	4183446.559	2.94
LOCATION	L0001218	VOLUME	563520.921	4183446.446	2.94
LOCATION	L0001219	VOLUME	563521.144	4183446.333	2.91
LOCATION	L0001220	VOLUME	563521.367	4183446.220	2.90
LOCATION	L0001221	VOLUME	563521.590	4183446.107	2.87
LOCATION	L0001222	VOLUME	563521.813	4183445.994	2.86
LOCATION	L0001223	VOLUME	563522.036	4183445.881	2.85
LOCATION	L0001224	VOLUME	563522.259	4183445.768	2.82
LOCATION	L0001225	VOLUME	563522.482	4183445.655	2.81
LOCATION	L0001226	VOLUME	563522.705	4183445.542	2.78
LOCATION	L0001227	VOLUME	563522.928	4183445.429	2.77
LOCATION	L0001228	VOLUME	563523.151	4183445.316	2.74
LOCATION	L0001229	VOLUME	563523.374	4183445.203	2.73
LOCATION	L0001230	VOLUME	563523.597	4183445.090	2.70
LOCATION	L0001231	VOLUME	563523.820	4183444.977	2.69
LOCATION	L0001232	VOLUME	563524.043	4183444.864	2.66
LOCATION	L0001233	VOLUME	563524.266	4183444.751	2.65
LOCATION	L0001234	VOLUME	563524.489	4183444.638	2.64
LOCATION	L0001235	VOLUME	563524.712	4183444.525	2.61
LOCATION	L0001236	VOLUME	563524.934	4183444.412	2.60
LOCATION	L0001237	VOLUME	563525.157	4183444.299	2.56
LOCATION	L0001238	VOLUME	563525.380	4183444.186	2.56
LOCATION	L0001239	VOLUME	563525.603	4183444.073	2.52
LOCATION	L0001240	VOLUME	563525.826	4183443.960	2.52
LOCATION	L0001241	VOLUME	563526.049	4183443.846	2.48

LOCATION	L0001242	VOLUME	563526.272	4183443.733	2.48
LOCATION	L0001243	VOLUME	563526.495	4183443.620	2.45
LOCATION	L0001244	VOLUME	563526.718	4183443.507	2.44
LOCATION	L0001245	VOLUME	563526.941	4183443.394	2.42
LOCATION	L0001246	VOLUME	563527.164	4183443.281	2.39
LOCATION	L0001247	VOLUME	563527.387	4183443.168	2.38
LOCATION	L0001248	VOLUME	563527.610	4183443.055	2.36
LOCATION	L0001249	VOLUME	563527.833	4183442.942	2.35
LOCATION	L0001250	VOLUME	563528.056	4183442.829	2.32
LOCATION	L0001251	VOLUME	563528.279	4183442.716	2.31
LOCATION	L0001252	VOLUME	563528.502	4183442.603	2.29
LOCATION	L0001253	VOLUME	563528.725	4183442.490	2.27
LOCATION	L0001254	VOLUME	563528.948	4183442.377	2.26
LOCATION	L0001255	VOLUME	563529.171	4183442.264	2.24
LOCATION	L0001256	VOLUME	563529.394	4183442.151	2.23
LOCATION	L0001257	VOLUME	563529.617	4183442.038	2.21
LOCATION	L0001258	VOLUME	563529.840	4183441.925	2.20
LOCATION	L0001259	VOLUME	563530.063	4183441.812	2.18
LOCATION	L0001260	VOLUME	563530.286	4183441.699	2.17
LOCATION	L0001261	VOLUME	563530.509	4183441.586	2.15
LOCATION	L0001262	VOLUME	563530.732	4183441.473	2.14
LOCATION	L0001263	VOLUME	563530.955	4183441.360	2.13
LOCATION	L0001264	VOLUME	563531.178	4183441.247	2.12
LOCATION	L0001265	VOLUME	563531.401	4183441.134	2.11
LOCATION	L0001266	VOLUME	563531.624	4183441.020	2.10
LOCATION	L0001267	VOLUME	563531.847	4183440.907	2.09
LOCATION	L0001268	VOLUME	563532.070	4183440.794	2.08
LOCATION	L0001269	VOLUME	563532.293	4183440.681	2.07
LOCATION	L0001270	VOLUME	563532.516	4183440.568	2.06
LOCATION	L0001271	VOLUME	563532.739	4183440.455	2.05
LOCATION	L0001272	VOLUME	563532.962	4183440.342	2.04
LOCATION	L0001273	VOLUME	563533.185	4183440.229	2.04
LOCATION	L0001274	VOLUME	563533.408	4183440.116	2.03
LOCATION	L0001275	VOLUME	563533.631	4183440.003	2.03
LOCATION	L0001276	VOLUME	563533.854	4183439.890	2.02
LOCATION	L0001277	VOLUME	563534.077	4183439.777	1.99
LOCATION	L0001278	VOLUME	563534.300	4183439.664	1.99
LOCATION	L0001279	VOLUME	563534.523	4183439.551	2.00

LOCATION	L0001280	VOLUME	563534.746	4183439.438	2.00
LOCATION	L0001281	VOLUME	563534.969	4183439.325	2.00
LOCATION	L0001282	VOLUME	563535.192	4183439.212	2.00
LOCATION	L0001283	VOLUME	563535.415	4183439.099	2.00
LOCATION	L0001284	VOLUME	563535.638	4183438.986	2.00
LOCATION	L0001285	VOLUME	563535.861	4183438.873	2.00
LOCATION	L0001286	VOLUME	563536.084	4183438.760	2.00
LOCATION	L0001287	VOLUME	563536.307	4183438.647	2.00
LOCATION	L0001288	VOLUME	563536.530	4183438.534	2.00
LOCATION	L0001289	VOLUME	563536.753	4183438.421	2.00
LOCATION	L0001290	VOLUME	563536.976	4183438.307	2.00
LOCATION	L0001291	VOLUME	563537.199	4183438.194	2.00
LOCATION	L0001292	VOLUME	563537.422	4183438.081	2.00
LOCATION	L0001293	VOLUME	563537.645	4183437.968	2.00
LOCATION	L0001294	VOLUME	563537.868	4183437.855	2.00
LOCATION	L0001295	VOLUME	563538.091	4183437.742	2.00
LOCATION	L0001296	VOLUME	563538.314	4183437.629	2.00
LOCATION	L0001297	VOLUME	563538.537	4183437.516	2.00
LOCATION	L0001298	VOLUME	563538.759	4183437.403	2.00
LOCATION	L0001299	VOLUME	563538.982	4183437.290	2.01
LOCATION	L0001300	VOLUME	563539.205	4183437.177	2.01
LOCATION	L0001301	VOLUME	563539.428	4183437.064	2.01
LOCATION	L0001302	VOLUME	563539.651	4183436.951	2.02
LOCATION	L0001303	VOLUME	563539.874	4183436.838	2.02
LOCATION	L0001304	VOLUME	563540.097	4183436.725	2.03
LOCATION	L0001305	VOLUME	563540.320	4183436.612	2.03
LOCATION	L0001306	VOLUME	563540.543	4183436.499	2.04
LOCATION	L0001307	VOLUME	563540.766	4183436.386	2.04
LOCATION	L0001308	VOLUME	563540.989	4183436.273	2.05
LOCATION	L0001309	VOLUME	563541.212	4183436.160	2.06
LOCATION	L0001310	VOLUME	563541.435	4183436.047	2.07
LOCATION	L0001311	VOLUME	563541.658	4183435.934	2.08
LOCATION	L0001312	VOLUME	563541.881	4183435.821	2.09
LOCATION	L0001313	VOLUME	563542.104	4183435.708	2.10
LOCATION	L0001314	VOLUME	563542.327	4183435.595	2.11
LOCATION	L0001315	VOLUME	563542.550	4183435.481	2.12
LOCATION	L0001316	VOLUME	563542.773	4183435.368	2.13
LOCATION	L0001317	VOLUME	563542.996	4183435.255	2.15

LOCATION	L0001318	VOLUME	563543.219	4183435.142	2.17
LOCATION	L0001319	VOLUME	563543.442	4183435.029	2.18
LOCATION	L0001320	VOLUME	563543.665	4183434.916	2.20
LOCATION	L0001321	VOLUME	563543.888	4183434.803	2.21
LOCATION	L0001322	VOLUME	563544.111	4183434.690	2.62
LOCATION	L0001323	VOLUME	563544.334	4183434.577	2.66
LOCATION	L0001324	VOLUME	563544.557	4183434.464	2.69
LOCATION	L0001325	VOLUME	563544.780	4183434.351	2.72
LOCATION	L0001326	VOLUME	563545.003	4183434.238	2.75
LOCATION	L0001327	VOLUME	563545.226	4183434.125	2.79
LOCATION	L0001328	VOLUME	563545.449	4183434.012	2.81
LOCATION	L0001329	VOLUME	563545.672	4183433.899	2.85
LOCATION	L0001330	VOLUME	563545.895	4183433.786	2.88
LOCATION	L0001331	VOLUME	563546.118	4183433.673	2.91
LOCATION	L0001332	VOLUME	563546.341	4183433.560	2.94
LOCATION	L0001333	VOLUME	563546.564	4183433.447	2.97
LOCATION	L0001334	VOLUME	563546.787	4183433.334	3.01
LOCATION	L0001335	VOLUME	563547.010	4183433.221	3.03
LOCATION	L0001336	VOLUME	563547.233	4183433.108	3.06
LOCATION	L0001337	VOLUME	563547.456	4183432.995	3.09
LOCATION	L0001338	VOLUME	563547.679	4183432.882	3.12
LOCATION	L0001339	VOLUME	563547.902	4183432.769	3.14
LOCATION	L0001340	VOLUME	563548.125	4183432.655	3.17
LOCATION	L0001341	VOLUME	563548.348	4183432.542	3.20
LOCATION	L0001342	VOLUME	563548.571	4183432.429	3.22
LOCATION	L0001343	VOLUME	563548.794	4183432.316	3.25
LOCATION	L0001344	VOLUME	563549.017	4183432.203	3.27
LOCATION	L0001345	VOLUME	563549.240	4183432.090	3.30
LOCATION	L0001346	VOLUME	563549.463	4183431.977	3.32
LOCATION	L0001347	VOLUME	563549.686	4183431.864	3.34
LOCATION	L0001348	VOLUME	563549.909	4183431.751	3.37
LOCATION	L0001349	VOLUME	563550.132	4183431.638	3.39
LOCATION	L0001350	VOLUME	563550.355	4183431.525	3.41
LOCATION	L0001351	VOLUME	563550.578	4183431.412	3.42
LOCATION	L0001352	VOLUME	563550.801	4183431.299	3.44
LOCATION	L0001353	VOLUME	563551.024	4183431.186	3.46
LOCATION	L0001354	VOLUME	563551.247	4183431.073	3.48
LOCATION	L0001355	VOLUME	563551.470	4183430.960	3.50

LOCATION	L0001356	VOLUME	563551.693	4183430.847	3.51
LOCATION	L0001357	VOLUME	563551.916	4183430.734	3.53
LOCATION	L0001358	VOLUME	563552.139	4183430.621	3.53
LOCATION	L0001359	VOLUME	563552.362	4183430.508	3.55
LOCATION	L0001360	VOLUME	563552.584	4183430.395	3.57
LOCATION	L0001361	VOLUME	563552.807	4183430.282	3.58
LOCATION	L0001362	VOLUME	563553.030	4183430.169	3.59
LOCATION	L0001363	VOLUME	563553.253	4183430.056	3.60
LOCATION	L0001364	VOLUME	563553.476	4183429.942	3.61
LOCATION	L0001365	VOLUME	563553.699	4183429.829	3.62
LOCATION	L0001366	VOLUME	563553.922	4183429.716	3.63
LOCATION	L0001367	VOLUME	563554.145	4183429.603	3.64
LOCATION	L0001368	VOLUME	563554.368	4183429.490	3.65
LOCATION	L0001369	VOLUME	563554.591	4183429.377	3.66
LOCATION	L0001370	VOLUME	563554.814	4183429.264	3.66
LOCATION	L0001371	VOLUME	563555.037	4183429.151	3.68
LOCATION	L0001372	VOLUME	563555.260	4183429.038	3.68
LOCATION	L0001373	VOLUME	563555.483	4183428.925	3.69
LOCATION	L0001374	VOLUME	563555.706	4183428.812	3.69
LOCATION	L0001375	VOLUME	563555.929	4183428.699	3.70
LOCATION	L0001376	VOLUME	563556.152	4183428.586	3.70
LOCATION	L0001377	VOLUME	563556.375	4183428.473	3.71
LOCATION	L0001378	VOLUME	563556.598	4183428.360	3.71
LOCATION	L0001379	VOLUME	563556.821	4183428.247	3.71
LOCATION	L0001380	VOLUME	563557.044	4183428.134	3.72
LOCATION	L0001381	VOLUME	563557.267	4183428.021	3.72
LOCATION	L0001382	VOLUME	563557.490	4183427.908	3.73
LOCATION	L0001383	VOLUME	563557.713	4183427.795	3.73
LOCATION	L0001384	VOLUME	563557.936	4183427.682	3.73
LOCATION	L0001385	VOLUME	563558.159	4183427.569	3.73
LOCATION	L0001386	VOLUME	563558.382	4183427.456	3.74
LOCATION	L0001387	VOLUME	563558.605	4183427.343	3.74
LOCATION	L0001388	VOLUME	563558.828	4183427.230	3.74
LOCATION	L0001389	VOLUME	563559.051	4183427.116	3.74
LOCATION	L0001390	VOLUME	563559.274	4183427.003	3.75
LOCATION	L0001391	VOLUME	563559.497	4183426.890	3.75
LOCATION	L0001392	VOLUME	563559.720	4183426.777	3.75
LOCATION	L0001393	VOLUME	563559.943	4183426.664	3.76

LOCATION	L0001394	VOLUME	563560.166	4183426.551	3.75
LOCATION	L0001395	VOLUME	563560.389	4183426.438	3.76
LOCATION	L0001396	VOLUME	563560.612	4183426.325	3.75
LOCATION	L0001397	VOLUME	563560.835	4183426.212	3.76
LOCATION	L0001398	VOLUME	563561.058	4183426.099	3.76
LOCATION	L0001399	VOLUME	563561.281	4183425.986	3.76
LOCATION	L0001400	VOLUME	563561.504	4183425.873	3.76
LOCATION	L0001401	VOLUME	563561.727	4183425.760	3.76
LOCATION	L0001402	VOLUME	563561.950	4183425.647	3.77
LOCATION	L0001403	VOLUME	563562.173	4183425.534	3.77
LOCATION	L0001404	VOLUME	563562.396	4183425.421	3.77
LOCATION	L0001405	VOLUME	563562.619	4183425.308	3.77
LOCATION	L0001406	VOLUME	563562.842	4183425.195	3.77
LOCATION	L0001407	VOLUME	563563.065	4183425.082	3.77
LOCATION	L0001408	VOLUME	563563.288	4183424.969	3.78
LOCATION	L0001409	VOLUME	563563.511	4183424.856	3.77
LOCATION	L0001410	VOLUME	563563.734	4183424.743	3.78
LOCATION	L0001411	VOLUME	563563.957	4183424.630	3.78
LOCATION	L0001412	VOLUME	563564.180	4183424.517	3.78
LOCATION	L0001413	VOLUME	563564.403	4183424.404	3.79
LOCATION	L0001414	VOLUME	563564.626	4183424.290	3.78
LOCATION	L0001415	VOLUME	563564.849	4183424.177	3.79
LOCATION	L0001416	VOLUME	563565.072	4183424.064	3.78
LOCATION	L0001417	VOLUME	563565.295	4183423.951	3.79
LOCATION	L0001418	VOLUME	563565.518	4183423.838	3.79
LOCATION	L0001419	VOLUME	563565.741	4183423.725	3.80
LOCATION	L0001420	VOLUME	563565.964	4183423.612	3.79
LOCATION	L0001421	VOLUME	563566.187	4183423.499	3.80
LOCATION	L0001422	VOLUME	563566.410	4183423.386	3.81
LOCATION	L0001423	VOLUME	563566.632	4183423.273	3.81
LOCATION	L0001424	VOLUME	563566.855	4183423.160	3.82
LOCATION	L0001425	VOLUME	563567.078	4183423.047	3.81
LOCATION	L0001426	VOLUME	563567.301	4183422.934	3.82
LOCATION	L0001427	VOLUME	563567.524	4183422.821	3.81
LOCATION	L0001428	VOLUME	563567.747	4183422.708	3.83
LOCATION	L0001429	VOLUME	563567.970	4183422.595	4.63
LOCATION	L0001430	VOLUME	563568.193	4183422.482	4.63
LOCATION	L0001431	VOLUME	563568.416	4183422.369	4.64

LOCATION	L0001432	VOLUME	563568.639	4183422.256	4.64
LOCATION	L0001433	VOLUME	563568.862	4183422.143	4.65
LOCATION	L0001434	VOLUME	563569.085	4183422.030	4.65
LOCATION	L0001435	VOLUME	563569.308	4183421.917	4.65
LOCATION	L0001436	VOLUME	563569.531	4183421.804	4.65
LOCATION	L0001437	VOLUME	563569.754	4183421.691	4.66
LOCATION	L0001438	VOLUME	563569.977	4183421.578	4.66
LOCATION	L0001439	VOLUME	563570.200	4183421.464	4.66
LOCATION	L0001440	VOLUME	563570.423	4183421.351	4.66
LOCATION	L0001441	VOLUME	563570.646	4183421.238	4.66
LOCATION	L0001442	VOLUME	563570.869	4183421.125	4.67
LOCATION	L0001443	VOLUME	563571.092	4183421.012	4.66
LOCATION	L0001444	VOLUME	563571.315	4183420.899	4.67
LOCATION	L0001445	VOLUME	563571.538	4183420.786	4.66
LOCATION	L0001446	VOLUME	563571.761	4183420.673	4.66
LOCATION	L0001447	VOLUME	563571.984	4183420.560	4.66
LOCATION	L0001448	VOLUME	563572.207	4183420.447	4.66
LOCATION	L0001449	VOLUME	563572.430	4183420.334	4.65
LOCATION	L0001450	VOLUME	563572.653	4183420.221	4.65
LOCATION	L0001451	VOLUME	563572.876	4183420.108	4.64
LOCATION	L0001452	VOLUME	563573.099	4183419.995	4.65
LOCATION	L0001453	VOLUME	563573.322	4183419.882	4.65
LOCATION	L0001454	VOLUME	563573.545	4183419.769	4.64
LOCATION	L0001455	VOLUME	563573.768	4183419.656	4.64
LOCATION	L0001456	VOLUME	563573.991	4183419.543	4.62
LOCATION	L0001457	VOLUME	563574.214	4183419.430	4.62
LOCATION	L0001458	VOLUME	563574.437	4183419.317	4.61
LOCATION	L0001459	VOLUME	563574.660	4183419.204	4.61
LOCATION	L0001460	VOLUME	563574.883	4183419.091	4.60
LOCATION	L0001461	VOLUME	563575.106	4183418.978	4.59
LOCATION	L0001462	VOLUME	563575.329	4183418.865	4.58
LOCATION	L0001463	VOLUME	563575.552	4183418.751	4.58
LOCATION	L0001464	VOLUME	563575.775	4183418.638	4.57
LOCATION	L0001465	VOLUME	563575.998	4183418.525	4.56
LOCATION	L0001466	VOLUME	563576.221	4183418.412	4.55
LOCATION	L0001467	VOLUME	563576.444	4183418.299	4.54
LOCATION	L0001468	VOLUME	563576.667	4183418.186	4.53
LOCATION	L0001469	VOLUME	563576.890	4183418.073	4.52

LOCATION	L0001470	VOLUME	563577.113	4183417.960	4.51
LOCATION	L0001471	VOLUME	563577.336	4183417.847	4.49
LOCATION	L0001472	VOLUME	563577.559	4183417.734	4.49
LOCATION	L0001473	VOLUME	563577.782	4183417.621	4.47
LOCATION	L0001474	VOLUME	563578.005	4183417.508	4.47
LOCATION	L0001475	VOLUME	563578.228	4183417.395	4.46
LOCATION	L0001476	VOLUME	563578.451	4183417.282	4.44
LOCATION	L0001477	VOLUME	563578.674	4183417.169	4.44
LOCATION	L0001478	VOLUME	563578.897	4183417.056	4.42
LOCATION	L0001479	VOLUME	563579.120	4183416.943	4.41
LOCATION	L0001480	VOLUME	563579.343	4183416.830	4.39
LOCATION	L0001481	VOLUME	563579.566	4183416.717	4.39
LOCATION	L0001482	VOLUME	563579.789	4183416.604	4.36
LOCATION	L0001483	VOLUME	563580.012	4183416.491	4.36
LOCATION	L0001484	VOLUME	563580.235	4183416.378	4.36
LOCATION	L0001485	VOLUME	563580.457	4183416.265	4.34
LOCATION	L0001486	VOLUME	563580.680	4183416.152	4.33
LOCATION	L0001487	VOLUME	563580.903	4183416.039	4.31
LOCATION	L0001488	VOLUME	563581.126	4183415.925	4.31
LOCATION	L0001489	VOLUME	563581.349	4183415.812	3.89
LOCATION	L0001490	VOLUME	563581.572	4183415.699	3.89
LOCATION	L0001491	VOLUME	563581.795	4183415.586	3.90
LOCATION	L0001492	VOLUME	563582.018	4183415.473	3.90
LOCATION	L0001493	VOLUME	563582.241	4183415.360	3.91
LOCATION	L0001494	VOLUME	563582.464	4183415.247	3.91
LOCATION	L0001495	VOLUME	563582.687	4183415.134	3.92
LOCATION	L0001496	VOLUME	563582.910	4183415.021	3.92
LOCATION	L0001497	VOLUME	563583.133	4183414.908	3.93
LOCATION	L0001498	VOLUME	563583.356	4183414.795	3.93
LOCATION	L0001499	VOLUME	563583.579	4183414.682	3.93
LOCATION	L0001500	VOLUME	563583.802	4183414.569	3.94
LOCATION	L0001501	VOLUME	563584.025	4183414.456	3.94
LOCATION	L0001502	VOLUME	563584.248	4183414.343	3.95
LOCATION	L0001503	VOLUME	563584.471	4183414.230	3.95
LOCATION	L0001504	VOLUME	563584.694	4183414.117	3.95
LOCATION	L0001505	VOLUME	563584.917	4183414.004	3.95
LOCATION	L0001506	VOLUME	563585.140	4183413.891	3.95
LOCATION	L0001507	VOLUME	563585.363	4183413.778	3.96

LOCATION	L0001508	VOLUME	563585.586	4183413.665	3.96
LOCATION	L0001509	VOLUME	563585.809	4183413.552	3.96
LOCATION	L0001510	VOLUME	563586.032	4183413.439	3.96
LOCATION	L0001511	VOLUME	563586.255	4183413.326	3.97
LOCATION	L0001512	VOLUME	563586.478	4183413.213	3.96
LOCATION	L0001513	VOLUME	563586.701	4183413.099	3.97
LOCATION	L0001514	VOLUME	563586.924	4183412.986	3.97
LOCATION	L0001515	VOLUME	563587.147	4183412.873	3.97
LOCATION	L0001516	VOLUME	563587.370	4183412.760	3.97
LOCATION	L0001517	VOLUME	563587.593	4183412.647	3.97
LOCATION	L0001518	VOLUME	563587.816	4183412.534	3.97
LOCATION	L0001519	VOLUME	563588.039	4183412.421	3.97
LOCATION	L0001520	VOLUME	563588.262	4183412.308	3.97
LOCATION	L0001521	VOLUME	563588.485	4183412.195	3.97
LOCATION	L0001522	VOLUME	563588.708	4183412.082	3.97
LOCATION	L0001523	VOLUME	563588.931	4183411.969	3.97
LOCATION	L0001524	VOLUME	563589.154	4183411.856	3.97
LOCATION	L0001525	VOLUME	563589.377	4183411.743	3.97
LOCATION	L0001526	VOLUME	563589.600	4183411.630	3.97
LOCATION	L0001527	VOLUME	563589.823	4183411.517	3.97
LOCATION	L0001528	VOLUME	563590.046	4183411.404	3.96
LOCATION	L0001529	VOLUME	563590.269	4183411.291	3.96
LOCATION	L0001530	VOLUME	563590.492	4183411.178	3.96
LOCATION	L0001531	VOLUME	563590.715	4183411.065	3.96
LOCATION	L0001532	VOLUME	563590.938	4183410.952	3.96
LOCATION	L0001533	VOLUME	563591.161	4183410.839	3.96
LOCATION	L0001534	VOLUME	563591.384	4183410.726	3.96
LOCATION	L0001535	VOLUME	563591.607	4183410.613	3.96
LOCATION	L0001536	VOLUME	563591.830	4183410.500	3.96
LOCATION	L0001537	VOLUME	563592.053	4183410.386	3.94
LOCATION	L0001538	VOLUME	563592.276	4183410.273	3.94
LOCATION	L0001539	VOLUME	563592.499	4183410.160	3.94
LOCATION	L0001540	VOLUME	563592.722	4183410.047	3.93
LOCATION	L0001541	VOLUME	563592.945	4183409.934	3.93
LOCATION	L0001542	VOLUME	563593.168	4183409.821	3.93
LOCATION	L0001543	VOLUME	563593.391	4183409.708	3.93
LOCATION	L0001544	VOLUME	563593.614	4183409.595	3.92
LOCATION	L0001545	VOLUME	563593.837	4183409.482	3.92

LOCATION	L0001546	VOLUME	563594.060	4183409.369	3.92
LOCATION	L0001547	VOLUME	563594.283	4183409.256	3.91
LOCATION	L0001548	VOLUME	563594.505	4183409.143	3.91
LOCATION	L0001549	VOLUME	563594.728	4183409.030	3.91
LOCATION	L0001550	VOLUME	563594.951	4183408.917	3.91
LOCATION	L0001551	VOLUME	563595.174	4183408.804	3.90
LOCATION	L0001552	VOLUME	563595.397	4183408.691	3.90
LOCATION	L0001553	VOLUME	563595.620	4183408.578	3.90
LOCATION	L0001554	VOLUME	563595.843	4183408.465	3.90
LOCATION	L0001555	VOLUME	563596.066	4183408.352	3.90
LOCATION	L0001556	VOLUME	563596.289	4183408.239	3.89
LOCATION	L0001557	VOLUME	563596.512	4183408.126	3.89
LOCATION	L0001558	VOLUME	563596.735	4183408.013	3.89
LOCATION	L0001559	VOLUME	563596.958	4183407.900	3.89
LOCATION	L0001560	VOLUME	563597.181	4183407.787	3.89
LOCATION	L0001561	VOLUME	563597.404	4183407.674	3.89
LOCATION	L0001562	VOLUME	563597.627	4183407.560	3.88
LOCATION	L0001563	VOLUME	563597.850	4183407.447	3.88
LOCATION	L0001564	VOLUME	563598.073	4183407.334	3.88
LOCATION	L0001565	VOLUME	563598.296	4183407.221	3.88
LOCATION	L0001566	VOLUME	563598.519	4183407.108	3.88
LOCATION	L0001567	VOLUME	563598.742	4183406.995	3.88
LOCATION	L0001568	VOLUME	563598.965	4183406.882	3.88
LOCATION	L0001569	VOLUME	563599.188	4183406.769	3.88
LOCATION	L0001570	VOLUME	563599.411	4183406.656	3.88
LOCATION	L0001571	VOLUME	563599.634	4183406.543	3.88
LOCATION	L0001572	VOLUME	563599.857	4183406.430	3.88
LOCATION	L0001573	VOLUME	563600.080	4183406.317	3.88
LOCATION	L0001574	VOLUME	563600.303	4183406.204	3.89
LOCATION	L0001575	VOLUME	563600.526	4183406.091	3.89
LOCATION	L0001576	VOLUME	563600.749	4183405.978	3.89
LOCATION	L0001577	VOLUME	563600.972	4183405.865	3.89
LOCATION	L0001578	VOLUME	563601.195	4183405.752	3.89
LOCATION	L0001579	VOLUME	563601.418	4183405.639	3.89
LOCATION	L0001580	VOLUME	563601.641	4183405.526	3.89
LOCATION	L0001581	VOLUME	563601.864	4183405.413	3.89
LOCATION	L0001582	VOLUME	563602.087	4183405.300	3.89
LOCATION	L0001583	VOLUME	563602.310	4183405.187	3.90

LOCATION	L0001584	VOLUME	563602.533	4183405.074	3.90
LOCATION	L0001585	VOLUME	563602.756	4183404.961	3.90
LOCATION	L0001586	VOLUME	563602.979	4183404.848	3.90
LOCATION	L0001587	VOLUME	563603.202	4183404.734	3.90
LOCATION	L0001588	VOLUME	563603.425	4183404.621	3.90
LOCATION	L0001589	VOLUME	563603.648	4183404.508	3.90
LOCATION	L0001590	VOLUME	563603.871	4183404.395	3.91
LOCATION	L0001591	VOLUME	563604.094	4183404.282	3.91
LOCATION	L0001592	VOLUME	563604.317	4183404.169	3.91
LOCATION	L0001593	VOLUME	563604.540	4183404.056	3.91
LOCATION	L0001594	VOLUME	563604.763	4183403.943	3.91
LOCATION	L0001595	VOLUME	563604.986	4183403.830	3.91
LOCATION	L0001596	VOLUME	563605.209	4183403.717	3.91
LOCATION	L0001597	VOLUME	563605.432	4183403.604	3.91
LOCATION	L0001598	VOLUME	563605.655	4183403.491	3.91
LOCATION	L0001599	VOLUME	563605.878	4183403.378	3.91
LOCATION	L0001600	VOLUME	563606.101	4183403.265	3.91
LOCATION	L0001601	VOLUME	563606.324	4183403.152	3.91
LOCATION	L0001602	VOLUME	563606.547	4183403.039	3.91
LOCATION	L0001603	VOLUME	563606.770	4183402.926	3.91
LOCATION	L0001604	VOLUME	563606.993	4183402.813	3.90
LOCATION	L0001605	VOLUME	563607.216	4183402.700	3.91
LOCATION	L0001606	VOLUME	563607.439	4183402.587	3.90
LOCATION	L0001607	VOLUME	563607.662	4183402.474	3.90
LOCATION	L0001608	VOLUME	563607.885	4183402.361	3.89
LOCATION	L0001609	VOLUME	563608.108	4183402.248	3.90
LOCATION	L0001610	VOLUME	563608.330	4183402.135	3.90
LOCATION	L0001611	VOLUME	563608.553	4183402.021	3.89
LOCATION	L0001612	VOLUME	563608.776	4183401.908	3.89
LOCATION	L0001613	VOLUME	563608.999	4183401.795	3.88
LOCATION	L0001614	VOLUME	563609.222	4183401.682	3.88
LOCATION	L0001615	VOLUME	563609.445	4183401.569	3.87
LOCATION	L0001616	VOLUME	563609.668	4183401.456	3.87
LOCATION	L0001617	VOLUME	563609.891	4183401.343	3.86
LOCATION	L0001618	VOLUME	563610.114	4183401.230	3.86
LOCATION	L0001619	VOLUME	563610.337	4183401.117	3.85
LOCATION	L0001620	VOLUME	563610.560	4183401.004	3.84
LOCATION	L0001621	VOLUME	563610.783	4183400.891	3.84

LOCATION	L0001622	VOLUME	563611.006	4183400.778	3.83
LOCATION	L0001623	VOLUME	563611.229	4183400.665	3.83
LOCATION	L0001624	VOLUME	563611.452	4183400.552	3.81
LOCATION	L0001625	VOLUME	563611.675	4183400.439	3.81
LOCATION	L0001626	VOLUME	563611.898	4183400.326	3.80
LOCATION	L0001627	VOLUME	563612.121	4183400.213	3.79
LOCATION	L0001628	VOLUME	563612.344	4183400.100	3.78
LOCATION	L0001629	VOLUME	563612.567	4183399.987	3.78
LOCATION	L0001630	VOLUME	563612.790	4183399.874	3.76
LOCATION	L0001631	VOLUME	563613.013	4183399.761	3.76
LOCATION	L0001632	VOLUME	563613.236	4183399.648	3.75
LOCATION	L0001633	VOLUME	563613.459	4183399.535	3.74
LOCATION	L0001634	VOLUME	563613.682	4183399.422	3.73
LOCATION	L0001635	VOLUME	563613.905	4183399.309	3.72
LOCATION	L0001636	VOLUME	563614.128	4183399.195	3.71
LOCATION	L0001637	VOLUME	563614.351	4183399.082	3.70
LOCATION	L0001638	VOLUME	563614.574	4183398.969	3.69
LOCATION	L0001639	VOLUME	563614.797	4183398.856	3.68
LOCATION	L0001640	VOLUME	563615.020	4183398.743	3.67
LOCATION	L0001641	VOLUME	563615.243	4183398.630	3.67
LOCATION	L0001642	VOLUME	563615.466	4183398.517	3.65
LOCATION	L0001643	VOLUME	563615.689	4183398.404	3.65
LOCATION	L0001644	VOLUME	563615.912	4183398.291	3.63
LOCATION	L0001645	VOLUME	563616.135	4183398.178	3.49
LOCATION	L0001646	VOLUME	563616.358	4183398.065	3.47
LOCATION	L0001647	VOLUME	563616.581	4183397.952	3.46
LOCATION	L0001648	VOLUME	563616.804	4183397.839	3.43
LOCATION	L0001649	VOLUME	563617.027	4183397.726	3.42
LOCATION	L0001650	VOLUME	563617.250	4183397.613	3.40
LOCATION	L0001651	VOLUME	563617.473	4183397.500	3.39
LOCATION	L0001652	VOLUME	563617.696	4183397.387	3.38
LOCATION	L0001653	VOLUME	563617.919	4183397.274	3.36
LOCATION	L0001654	VOLUME	563618.142	4183397.161	3.35
LOCATION	L0001655	VOLUME	563618.365	4183397.048	3.32
LOCATION	L0001656	VOLUME	563618.588	4183396.935	3.31
LOCATION	L0001657	VOLUME	563618.811	4183396.822	3.29
LOCATION	L0001658	VOLUME	563619.034	4183396.709	3.28
LOCATION	L0001659	VOLUME	563619.257	4183396.596	3.26

LOCATION	L0001660	VOLUME	563619.480	4183396.483	3.25
LOCATION	L0001661	VOLUME	563619.703	4183396.369	3.23
LOCATION	L0001662	VOLUME	563619.926	4183396.256	3.22
LOCATION	L0001663	VOLUME	563620.149	4183396.143	3.21
LOCATION	L0001664	VOLUME	563620.372	4183396.030	3.19
LOCATION	L0001665	VOLUME	563620.595	4183395.917	3.18
LOCATION	L0001666	VOLUME	563620.818	4183395.804	3.16
LOCATION	L0001667	VOLUME	563621.041	4183395.691	3.15
LOCATION	L0001668	VOLUME	563621.264	4183395.578	3.13
LOCATION	L0001669	VOLUME	563621.487	4183395.465	3.12
LOCATION	L0001670	VOLUME	563621.710	4183395.352	3.10
LOCATION	L0001671	VOLUME	563621.933	4183395.239	3.09
LOCATION	L0001672	VOLUME	563622.155	4183395.126	3.08
LOCATION	L0001673	VOLUME	563622.378	4183395.013	3.06
LOCATION	L0001674	VOLUME	563622.601	4183394.900	3.05
LOCATION	L0001675	VOLUME	563622.824	4183394.787	3.03
LOCATION	L0001676	VOLUME	563623.047	4183394.674	3.03
LOCATION	L0001677	VOLUME	563623.270	4183394.561	3.01
LOCATION	L0001678	VOLUME	563623.493	4183394.448	3.00
LOCATION	L0001679	VOLUME	563623.716	4183394.335	2.98
LOCATION	L0001680	VOLUME	563623.939	4183394.222	2.97
LOCATION	L0001681	VOLUME	563624.162	4183394.109	2.95
LOCATION	L0001682	VOLUME	563624.385	4183393.996	2.95
LOCATION	L0001683	VOLUME	563624.608	4183393.883	2.94
LOCATION	L0001684	VOLUME	563624.831	4183393.770	2.92
LOCATION	L0001685	VOLUME	563625.054	4183393.657	2.91
LOCATION	L0001686	VOLUME	563625.277	4183393.543	2.89
LOCATION	L0001687	VOLUME	563625.500	4183393.430	2.89
LOCATION	L0001688	VOLUME	563625.723	4183393.317	2.87
LOCATION	L0001689	VOLUME	563625.946	4183393.204	2.86
LOCATION	L0001690	VOLUME	563626.169	4183393.091	2.84
LOCATION	L0001691	VOLUME	563626.392	4183392.978	2.84
LOCATION	L0001692	VOLUME	563626.615	4183392.865	2.82
LOCATION	L0001693	VOLUME	563626.838	4183392.752	2.81
LOCATION	L0001694	VOLUME	563627.061	4183392.639	2.81
LOCATION	L0001695	VOLUME	563627.284	4183392.526	2.79
LOCATION	L0001696	VOLUME	563627.507	4183392.413	2.78
LOCATION	L0001697	VOLUME	563627.730	4183392.300	2.76

LOCATION	L0001698	VOLUME	563627.953	4183392.187	2.76
LOCATION	L0001699	VOLUME	563628.176	4183392.074	2.74
LOCATION	L0001700	VOLUME	563628.399	4183391.961	2.73
LOCATION	L0001701	VOLUME	563628.622	4183391.848	2.11
LOCATION	L0001702	VOLUME	563628.845	4183391.735	2.11
LOCATION	L0001703	VOLUME	563629.068	4183391.622	2.10
LOCATION	L0001704	VOLUME	563629.291	4183391.509	2.10
LOCATION	L0001705	VOLUME	563629.514	4183391.396	2.09
LOCATION	L0001706	VOLUME	563629.737	4183391.283	2.09
LOCATION	L0001707	VOLUME	563629.960	4183391.170	2.08
LOCATION	L0001708	VOLUME	563630.183	4183391.057	2.08
LOCATION	L0001709	VOLUME	563630.406	4183390.944	2.07
LOCATION	L0001710	VOLUME	563630.629	4183390.830	2.07
LOCATION	L0001711	VOLUME	563630.852	4183390.717	2.06
LOCATION	L0001712	VOLUME	563631.075	4183390.604	2.06
LOCATION	L0001713	VOLUME	563631.298	4183390.491	2.05
LOCATION	L0001714	VOLUME	563631.521	4183390.378	2.05
LOCATION	L0001715	VOLUME	563631.744	4183390.265	2.04
LOCATION	L0001716	VOLUME	563631.967	4183390.152	2.04
LOCATION	L0001717	VOLUME	563632.190	4183390.039	2.03
LOCATION	L0001718	VOLUME	563632.413	4183389.926	2.03
LOCATION	L0001719	VOLUME	563632.636	4183389.813	2.02
LOCATION	L0001720	VOLUME	563632.859	4183389.700	2.02
LOCATION	L0001721	VOLUME	563633.082	4183389.587	2.02
LOCATION	L0001722	VOLUME	563633.305	4183389.474	2.01
LOCATION	L0001723	VOLUME	563633.528	4183389.361	2.01
LOCATION	L0001724	VOLUME	563633.751	4183389.248	2.00
LOCATION	L0001725	VOLUME	563633.974	4183389.135	2.00
LOCATION	L0001726	VOLUME	563634.197	4183389.022	2.00
LOCATION	L0001727	VOLUME	563634.420	4183388.909	1.99
LOCATION	L0001728	VOLUME	563634.643	4183388.796	1.99
LOCATION	L0001729	VOLUME	563634.866	4183388.683	1.99
LOCATION	L0001730	VOLUME	563635.089	4183388.570	1.98
LOCATION	L0001731	VOLUME	563635.312	4183388.457	1.98
LOCATION	L0001732	VOLUME	563635.535	4183388.344	1.98
LOCATION	L0001733	VOLUME	563635.758	4183388.231	1.97
LOCATION	L0001734	VOLUME	563635.981	4183388.118	1.97
LOCATION	L0001735	VOLUME	563636.203	4183388.004	1.97

LOCATION	L0001736	VOLUME	563636.426	4183387.891	1.96
LOCATION	L0001737	VOLUME	563636.649	4183387.778	1.96
LOCATION	L0001738	VOLUME	563636.872	4183387.665	1.95
LOCATION	L0001739	VOLUME	563637.095	4183387.552	1.95
LOCATION	L0001740	VOLUME	563637.318	4183387.439	1.95
LOCATION	L0001741	VOLUME	563637.541	4183387.326	1.94
LOCATION	L0001742	VOLUME	563637.764	4183387.213	1.94
LOCATION	L0001743	VOLUME	563637.987	4183387.100	1.94
LOCATION	L0001744	VOLUME	563638.210	4183386.987	1.93
LOCATION	L0001745	VOLUME	563638.433	4183386.874	1.93
LOCATION	L0001746	VOLUME	563638.656	4183386.761	1.92
LOCATION	L0001747	VOLUME	563638.879	4183386.648	1.92
LOCATION	L0001748	VOLUME	563639.102	4183386.535	1.91
LOCATION	L0001749	VOLUME	563639.325	4183386.422	1.91
LOCATION	L0001750	VOLUME	563639.548	4183386.309	1.91
LOCATION	L0001751	VOLUME	563639.771	4183386.196	1.90
LOCATION	L0001752	VOLUME	563639.994	4183386.083	1.81
LOCATION	L0001753	VOLUME	563640.217	4183385.970	1.81
LOCATION	L0001754	VOLUME	563640.440	4183385.857	1.81
LOCATION	L0001755	VOLUME	563640.663	4183385.744	1.80
LOCATION	L0001756	VOLUME	563640.886	4183385.631	1.79
LOCATION	L0001757	VOLUME	563641.109	4183385.518	1.79
LOCATION	L0001758	VOLUME	563641.332	4183385.405	1.78
LOCATION	L0001759	VOLUME	563641.555	4183385.292	1.77
LOCATION	L0001760	VOLUME	563641.778	4183385.178	1.77
LOCATION	L0001761	VOLUME	563642.001	4183385.065	1.76
LOCATION	L0001762	VOLUME	563642.224	4183384.952	1.75
LOCATION	L0001763	VOLUME	563642.447	4183384.839	1.75
LOCATION	L0001764	VOLUME	563642.670	4183384.726	1.73
LOCATION	L0001765	VOLUME	563642.893	4183384.613	1.73
LOCATION	L0001766	VOLUME	563643.116	4183384.500	1.72
LOCATION	L0001767	VOLUME	563643.339	4183384.387	1.71
LOCATION	L0001768	VOLUME	563643.562	4183384.274	1.70
LOCATION	L0001769	VOLUME	563643.785	4183384.161	1.69
LOCATION	L0001770	VOLUME	563644.008	4183384.048	1.68
LOCATION	L0001771	VOLUME	563644.231	4183383.935	1.67
LOCATION	L0001772	VOLUME	563644.454	4183383.822	1.66
LOCATION	L0001773	VOLUME	563644.677	4183383.709	1.64

LOCATION	L0001774	VOLUME	563644.900	4183383.596	1.64
LOCATION	L0001775	VOLUME	563645.123	4183383.483	1.62
LOCATION	L0001776	VOLUME	563645.346	4183383.370	1.61
LOCATION	L0001777	VOLUME	563645.569	4183383.257	1.60
LOCATION	L0001778	VOLUME	563645.792	4183383.144	1.58
LOCATION	L0001779	VOLUME	563646.015	4183383.031	1.57
LOCATION	L0001780	VOLUME	563646.238	4183382.918	1.56
LOCATION	L0001781	VOLUME	563646.461	4183382.805	1.54
LOCATION	L0001782	VOLUME	563646.684	4183382.692	1.53
LOCATION	L0001783	VOLUME	563646.907	4183382.579	1.51
LOCATION	L0001784	VOLUME	563647.130	4183382.465	1.50
LOCATION	L0001785	VOLUME	563647.353	4183382.352	1.49
LOCATION	L0001786	VOLUME	563647.576	4183382.239	1.47
LOCATION	L0001787	VOLUME	563647.799	4183382.126	1.46
LOCATION	L0001788	VOLUME	563648.022	4183382.013	1.44
LOCATION	L0001789	VOLUME	563648.245	4183381.900	1.43
LOCATION	L0001790	VOLUME	563648.468	4183381.787	1.42
LOCATION	L0001791	VOLUME	563648.691	4183381.674	1.40
LOCATION	L0001792	VOLUME	563648.914	4183381.561	1.38
LOCATION	L0001793	VOLUME	563649.137	4183381.448	1.37
LOCATION	L0001794	VOLUME	563649.360	4183381.335	1.35
LOCATION	L0001795	VOLUME	563649.583	4183381.222	1.34
LOCATION	L0001796	VOLUME	563649.806	4183381.109	1.32
LOCATION	L0001797	VOLUME	563650.028	4183380.996	1.31
LOCATION	L0001798	VOLUME	563650.251	4183380.883	1.30
LOCATION	L0001799	VOLUME	563650.474	4183380.770	1.28
LOCATION	L0001800	VOLUME	563650.697	4183380.657	1.27
LOCATION	L0001801	VOLUME	563650.920	4183380.544	1.25
LOCATION	L0001802	VOLUME	563651.143	4183380.431	1.24
LOCATION	L0001803	VOLUME	563651.366	4183380.318	1.23
LOCATION	L0001804	VOLUME	563651.589	4183380.205	1.22
LOCATION	L0001805	VOLUME	563651.812	4183380.092	1.20
LOCATION	L0001806	VOLUME	563652.035	4183379.979	1.19
LOCATION	L0001807	VOLUME	563652.258	4183379.866	1.18
LOCATION	L0001808	VOLUME	563652.481	4183379.753	1.16
LOCATION	L0001809	VOLUME	563652.704	4183379.639	1.15
LOCATION	L0001810	VOLUME	563652.927	4183379.526	1.14
LOCATION	L0001811	VOLUME	563653.150	4183379.413	1.13

LOCATION	L0001812	VOLUME	563653.373	4183379.300	1.12
LOCATION	L0001813	VOLUME	563653.596	4183379.187	1.11
LOCATION	L0001814	VOLUME	563653.819	4183379.074	1.10
LOCATION	L0001815	VOLUME	563654.042	4183378.961	1.09
LOCATION	L0001816	VOLUME	563654.265	4183378.848	1.08
LOCATION	L0001817	VOLUME	563654.488	4183378.735	1.07
LOCATION	L0001818	VOLUME	563654.711	4183378.622	1.07
LOCATION	L0001819	VOLUME	563654.934	4183378.509	1.06
LOCATION	L0001820	VOLUME	563655.157	4183378.396	1.05
LOCATION	L0001821	VOLUME	563655.380	4183378.283	1.04
LOCATION	L0001822	VOLUME	563655.603	4183378.170	1.04
LOCATION	L0001823	VOLUME	563655.826	4183378.057	1.03
LOCATION	L0001824	VOLUME	563656.049	4183377.944	1.03
LOCATION	L0001825	VOLUME	563656.272	4183377.831	1.02
LOCATION	L0001826	VOLUME	563656.495	4183377.718	1.02
LOCATION	L0001827	VOLUME	563656.718	4183377.605	1.02
LOCATION	L0001828	VOLUME	563656.941	4183377.492	1.01
LOCATION	L0001829	VOLUME	563657.164	4183377.379	1.01
LOCATION	L0001830	VOLUME	563657.387	4183377.266	1.01
LOCATION	L0001831	VOLUME	563657.610	4183377.153	1.01
LOCATION	L0001832	VOLUME	563657.833	4183377.040	1.01
LOCATION	L0001833	VOLUME	563658.056	4183376.927	1.01
LOCATION	L0001834	VOLUME	563658.279	4183376.813	1.01
LOCATION	L0001835	VOLUME	563658.502	4183376.700	1.01
LOCATION	L0001836	VOLUME	563658.725	4183376.587	1.01
LOCATION	L0001837	VOLUME	563658.948	4183376.474	1.01
LOCATION	L0001838	VOLUME	563659.171	4183376.361	1.02
LOCATION	L0001839	VOLUME	563659.394	4183376.248	1.02
LOCATION	L0001840	VOLUME	563659.617	4183376.135	1.02
LOCATION	L0001841	VOLUME	563659.840	4183376.022	1.02
LOCATION	L0001842	VOLUME	563660.063	4183375.909	1.03
LOCATION	L0001843	VOLUME	563660.286	4183375.796	1.04
LOCATION	L0001844	VOLUME	563660.509	4183375.683	1.04
LOCATION	L0001845	VOLUME	563660.732	4183375.570	1.05
LOCATION	L0001846	VOLUME	563660.955	4183375.457	1.05
LOCATION	L0001847	VOLUME	563661.178	4183375.344	1.06
LOCATION	L0001848	VOLUME	563661.401	4183375.231	1.07
LOCATION	L0001849	VOLUME	563661.624	4183375.118	1.08

LOCATION	L0001850	VOLUME	563661.847	4183375.005	1.09
LOCATION	L0001851	VOLUME	563662.070	4183374.892	1.09
LOCATION	L0001852	VOLUME	563662.293	4183374.779	1.11
LOCATION	L0001853	VOLUME	563662.516	4183374.666	1.11
LOCATION	L0001854	VOLUME	563662.739	4183374.553	1.13
LOCATION	L0001855	VOLUME	563662.962	4183374.440	1.13
LOCATION	L0001856	VOLUME	563663.185	4183374.327	1.15
LOCATION	L0001857	VOLUME	563663.408	4183374.214	1.16
LOCATION	L0001858	VOLUME	563663.631	4183374.100	1.17
LOCATION	L0001859	VOLUME	563663.853	4183373.987	1.18
LOCATION	L0001860	VOLUME	563664.076	4183373.874	1.22
LOCATION	L0001861	VOLUME	563664.299	4183373.761	1.24
LOCATION	L0001862	VOLUME	563664.522	4183373.648	1.25
LOCATION	L0001863	VOLUME	563664.745	4183373.535	1.27
LOCATION	L0001864	VOLUME	563664.968	4183373.422	1.28
LOCATION	L0001865	VOLUME	563665.191	4183373.309	1.31
LOCATION	L0001866	VOLUME	563665.414	4183373.196	1.33
LOCATION	L0001867	VOLUME	563665.637	4183373.083	1.35
LOCATION	L0001868	VOLUME	563665.860	4183372.970	1.36
LOCATION	L0001869	VOLUME	563666.083	4183372.857	1.38
LOCATION	L0001870	VOLUME	563666.306	4183372.744	1.40
LOCATION	L0001871	VOLUME	563666.529	4183372.631	1.41
LOCATION	L0001872	VOLUME	563666.752	4183372.518	1.44
LOCATION	L0001873	VOLUME	563666.975	4183372.405	1.46
LOCATION	L0001874	VOLUME	563667.198	4183372.292	1.48
LOCATION	L0001875	VOLUME	563667.421	4183372.179	1.50
LOCATION	L0001876	VOLUME	563667.644	4183372.066	1.52
LOCATION	L0001877	VOLUME	563667.867	4183371.953	1.54
LOCATION	L0001878	VOLUME	563668.090	4183371.840	1.56
LOCATION	L0001879	VOLUME	563668.313	4183371.727	1.58
LOCATION	L0001880	VOLUME	563668.536	4183371.614	1.60
LOCATION	L0001881	VOLUME	563668.759	4183371.501	1.61
LOCATION	L0001882	VOLUME	563668.982	4183371.388	1.63
LOCATION	L0001883	VOLUME	563669.205	4183371.274	1.65
LOCATION	L0001884	VOLUME	563669.428	4183371.161	1.67
LOCATION	L0001885	VOLUME	563669.651	4183371.048	1.69
LOCATION	L0001886	VOLUME	563669.874	4183370.935	1.70
LOCATION	L0001887	VOLUME	563670.097	4183370.822	1.73

LOCATION	L0001888	VOLUME	563670.320	4183370.709	1.74
LOCATION	L0001889	VOLUME	563670.543	4183370.596	1.76
LOCATION	L0001890	VOLUME	563670.766	4183370.483	1.77
LOCATION	L0001891	VOLUME	563670.989	4183370.370	1.79
LOCATION	L0001892	VOLUME	563671.212	4183370.257	1.80
LOCATION	L0001893	VOLUME	563671.435	4183370.144	1.81
LOCATION	L0001894	VOLUME	563671.658	4183370.031	1.83
LOCATION	L0001895	VOLUME	563671.881	4183369.918	1.84
LOCATION	L0001896	VOLUME	563672.104	4183369.805	1.86
LOCATION	L0001897	VOLUME	563672.327	4183369.692	1.87
LOCATION	L0001898	VOLUME	563672.550	4183369.579	1.89
LOCATION	L0001899	VOLUME	563672.773	4183369.466	1.90
LOCATION	L0001900	VOLUME	563672.996	4183369.353	1.91
LOCATION	L0001901	VOLUME	563673.219	4183369.240	1.92
LOCATION	L0001902	VOLUME	563673.442	4183369.127	1.93
LOCATION	L0001903	VOLUME	563673.665	4183369.014	1.95
LOCATION	L0001904	VOLUME	563673.888	4183368.901	1.95
LOCATION	L0001905	VOLUME	563674.111	4183368.788	1.97
LOCATION	L0001906	VOLUME	563674.334	4183368.675	1.98
LOCATION	L0001907	VOLUME	563674.557	4183368.562	1.99
LOCATION	L0001908	VOLUME	563674.780	4183368.448	2.00
LOCATION	L0001909	VOLUME	563675.003	4183368.335	2.01
LOCATION	L0001910	VOLUME	563675.226	4183368.222	2.02
LOCATION	L0001911	VOLUME	563675.449	4183368.109	2.03
LOCATION	L0001912	VOLUME	563675.672	4183367.996	2.04
LOCATION	L0001913	VOLUME	563675.895	4183367.883	2.04
LOCATION	L0001914	VOLUME	563676.118	4183367.770	2.27
LOCATION	L0001915	VOLUME	563676.341	4183367.657	2.27
LOCATION	L0001916	VOLUME	563676.564	4183367.544	2.28
LOCATION	L0001917	VOLUME	563676.787	4183367.431	2.28
LOCATION	L0001918	VOLUME	563677.010	4183367.318	2.28
LOCATION	L0001919	VOLUME	563677.233	4183367.205	2.28
LOCATION	L0001920	VOLUME	563677.456	4183367.092	2.29
LOCATION	L0001921	VOLUME	563677.679	4183366.979	2.29
LOCATION	L0001922	VOLUME	563677.901	4183366.866	2.30
LOCATION	L0001923	VOLUME	563678.124	4183366.753	2.30
LOCATION	L0001924	VOLUME	563678.347	4183366.640	2.30
LOCATION	L0001925	VOLUME	563678.570	4183366.527	2.31

LOCATION	L0001926	VOLUME	563678.793	4183366.414	2.31
LOCATION	L0001927	VOLUME	563679.016	4183366.301	2.32
LOCATION	L0001928	VOLUME	563679.239	4183366.188	2.32
LOCATION	L0001929	VOLUME	563679.462	4183366.075	2.33
LOCATION	L0001930	VOLUME	563679.685	4183365.962	2.33
LOCATION	L0001931	VOLUME	563679.908	4183365.849	2.34
LOCATION	L0001932	VOLUME	563680.131	4183365.736	2.34
LOCATION	L0001933	VOLUME	563680.354	4183365.622	2.36
LOCATION	L0001934	VOLUME	563680.577	4183365.509	2.36
LOCATION	L0001935	VOLUME	563680.800	4183365.396	2.36
LOCATION	L0001936	VOLUME	563681.023	4183365.283	2.37
LOCATION	L0001937	VOLUME	563681.246	4183365.170	2.37
LOCATION	L0001938	VOLUME	563681.469	4183365.057	2.38
LOCATION	L0001939	VOLUME	563681.692	4183364.944	2.38
LOCATION	L0001940	VOLUME	563681.915	4183364.831	2.40
LOCATION	L0001941	VOLUME	563682.138	4183364.718	2.40
LOCATION	L0001942	VOLUME	563682.361	4183364.605	2.41
LOCATION	L0001943	VOLUME	563682.584	4183364.492	2.41
LOCATION	L0001944	VOLUME	563682.807	4183364.379	2.41
LOCATION	L0001945	VOLUME	563683.030	4183364.266	2.43
LOCATION	L0001946	VOLUME	563683.253	4183364.153	2.43
LOCATION	L0001947	VOLUME	563683.476	4183364.040	2.44
LOCATION	L0001948	VOLUME	563683.699	4183363.927	2.45
LOCATION	L0001949	VOLUME	563683.922	4183363.814	2.46
LOCATION	L0001950	VOLUME	563684.145	4183363.701	2.46
LOCATION	L0001951	VOLUME	563684.368	4183363.588	2.48
LOCATION	L0001952	VOLUME	563684.591	4183363.475	2.48
LOCATION	L0001953	VOLUME	563684.814	4183363.362	2.49
LOCATION	L0001954	VOLUME	563685.037	4183363.249	2.49
LOCATION	L0001955	VOLUME	563685.260	4183363.136	2.50
LOCATION	L0001956	VOLUME	563685.483	4183363.023	2.51
LOCATION	L0001957	VOLUME	563685.706	4183362.909	2.51
LOCATION	L0001958	VOLUME	563685.929	4183362.796	2.53
LOCATION	L0001959	VOLUME	563686.152	4183362.683	2.53
LOCATION	L0001960	VOLUME	563686.375	4183362.570	2.54
LOCATION	L0001961	VOLUME	563686.598	4183362.457	2.54
LOCATION	L0001962	VOLUME	563686.821	4183362.344	2.56
LOCATION	L0001963	VOLUME	563687.044	4183362.231	2.56

LOCATION	L0001964	VOLUME	563687.267	4183362.118	2.57
LOCATION	L0001965	VOLUME	563687.490	4183362.005	2.57
LOCATION	L0001966	VOLUME	563687.713	4183361.892	2.57
LOCATION	L0001967	VOLUME	563687.936	4183361.779	2.59
LOCATION	L0001968	VOLUME	563688.159	4183361.666	3.00
LOCATION	L0001969	VOLUME	563688.382	4183361.553	3.00
LOCATION	L0001970	VOLUME	563688.605	4183361.440	3.00
LOCATION	L0001971	VOLUME	563688.828	4183361.327	3.00
LOCATION	L0001972	VOLUME	563689.051	4183361.214	3.00
LOCATION	L0001973	VOLUME	563689.274	4183361.101	3.00
LOCATION	L0001974	VOLUME	563689.497	4183360.988	3.00
LOCATION	L0001975	VOLUME	563689.720	4183360.875	3.00
LOCATION	L0001976	VOLUME	563689.943	4183360.762	3.00
LOCATION	L0001977	VOLUME	563690.166	4183360.649	3.00
LOCATION	L0001978	VOLUME	563690.389	4183360.536	3.00
LOCATION	L0001979	VOLUME	563690.612	4183360.423	3.00
LOCATION	L0001980	VOLUME	563690.835	4183360.310	3.00
LOCATION	L0001981	VOLUME	563691.058	4183360.197	3.00
LOCATION	L0001982	VOLUME	563691.281	4183360.083	3.00
LOCATION	L0001983	VOLUME	563691.504	4183359.970	3.00
LOCATION	L0001984	VOLUME	563691.726	4183359.857	3.00
LOCATION	L0001985	VOLUME	563691.949	4183359.744	3.00
LOCATION	L0001986	VOLUME	563692.172	4183359.631	3.00
LOCATION	L0001987	VOLUME	563692.395	4183359.518	3.00
LOCATION	L0001988	VOLUME	563692.618	4183359.405	3.00
LOCATION	L0001989	VOLUME	563692.841	4183359.292	3.00
LOCATION	L0001990	VOLUME	563693.064	4183359.179	3.00
LOCATION	L0001991	VOLUME	563693.287	4183359.066	3.00
LOCATION	L0001992	VOLUME	563693.510	4183358.953	3.00
LOCATION	L0001993	VOLUME	563693.733	4183358.840	3.00
LOCATION	L0001994	VOLUME	563693.956	4183358.727	3.00
LOCATION	L0001995	VOLUME	563694.179	4183358.614	3.00
LOCATION	L0001996	VOLUME	563694.402	4183358.501	3.00
LOCATION	L0001997	VOLUME	563694.625	4183358.388	3.00
LOCATION	L0001998	VOLUME	563694.848	4183358.275	3.00
LOCATION	L0001999	VOLUME	563695.071	4183358.162	3.00
LOCATION	L0002000	VOLUME	563695.294	4183358.049	3.00
LOCATION	L0002001	VOLUME	563695.517	4183357.936	3.00

LOCATION	L0002002	VOLUME	563695.740	4183357.823	3.00
LOCATION	L0002003	VOLUME	563695.963	4183357.710	3.00
LOCATION	L0002004	VOLUME	563696.186	4183357.597	3.00
LOCATION	L0002005	VOLUME	563696.409	4183357.484	3.00
LOCATION	L0002006	VOLUME	563696.632	4183357.371	3.00
LOCATION	L0002007	VOLUME	563696.855	4183357.257	3.00
LOCATION	L0002008	VOLUME	563697.078	4183357.144	3.00
LOCATION	L0002009	VOLUME	563697.301	4183357.031	3.00
LOCATION	L0002010	VOLUME	563697.524	4183356.918	3.00
LOCATION	L0002011	VOLUME	563697.747	4183356.805	3.00
LOCATION	L0002012	VOLUME	563697.970	4183356.692	3.00
LOCATION	L0002013	VOLUME	563698.193	4183356.579	3.00
LOCATION	L0002014	VOLUME	563698.416	4183356.466	3.00
LOCATION	L0002015	VOLUME	563698.639	4183356.353	3.00
LOCATION	L0002016	VOLUME	563698.862	4183356.240	3.00
LOCATION	L0002017	VOLUME	563699.085	4183356.127	3.00
LOCATION	L0002018	VOLUME	563699.308	4183356.014	3.00
LOCATION	L0002019	VOLUME	563699.531	4183355.901	3.00
LOCATION	L0002020	VOLUME	563699.754	4183355.788	3.00
LOCATION	L0002021	VOLUME	563699.977	4183355.675	3.00
LOCATION	L0002022	VOLUME	563700.200	4183355.562	3.00
LOCATION	L0002023	VOLUME	563700.423	4183355.449	3.00
LOCATION	L0002024	VOLUME	563700.646	4183355.336	3.00
LOCATION	L0002025	VOLUME	563700.869	4183355.223	3.00
LOCATION	L0002026	VOLUME	563701.092	4183355.110	3.00
LOCATION	L0002027	VOLUME	563701.315	4183354.997	3.00
LOCATION	L0002028	VOLUME	563701.538	4183354.884	3.00
LOCATION	L0002029	VOLUME	563701.761	4183354.771	3.00
LOCATION	L0002030	VOLUME	563701.984	4183354.658	3.00
LOCATION	L0002031	VOLUME	563702.207	4183354.544	3.00
LOCATION	L0002032	VOLUME	563702.430	4183354.431	3.00
LOCATION	L0002033	VOLUME	563702.653	4183354.318	3.00
LOCATION	L0002034	VOLUME	563702.876	4183354.205	3.00
LOCATION	L0002035	VOLUME	563703.099	4183354.092	3.00
LOCATION	L0002036	VOLUME	563703.322	4183353.979	3.00
LOCATION	L0002037	VOLUME	563703.545	4183353.866	3.00
LOCATION	L0002038	VOLUME	563703.768	4183353.753	3.00
LOCATION	L0002039	VOLUME	563703.991	4183353.640	3.00

LOCATION	L0002040	VOLUME	563704.214	4183353.527	3.00
LOCATION	L0002041	VOLUME	563704.437	4183353.414	3.00
LOCATION	L0002042	VOLUME	563704.660	4183353.301	3.00
LOCATION	L0002043	VOLUME	563704.883	4183353.188	3.00
LOCATION	L0002044	VOLUME	563705.106	4183353.075	3.00
LOCATION	L0002045	VOLUME	563705.329	4183352.962	3.00
LOCATION	L0002046	VOLUME	563705.552	4183352.849	3.00
LOCATION	L0002047	VOLUME	563705.774	4183352.736	3.00
LOCATION	L0002048	VOLUME	563705.997	4183352.623	3.00
LOCATION	L0002049	VOLUME	563706.220	4183352.510	3.00
LOCATION	L0002050	VOLUME	563706.443	4183352.397	3.00
LOCATION	L0002051	VOLUME	563706.666	4183352.284	3.00
LOCATION	L0002052	VOLUME	563706.889	4183352.171	3.00
LOCATION	L0002053	VOLUME	563707.112	4183352.058	3.00
LOCATION	L0002054	VOLUME	563707.335	4183351.945	3.00
LOCATION	L0002055	VOLUME	563707.558	4183351.832	3.00
LOCATION	L0002056	VOLUME	563707.781	4183351.718	3.00
LOCATION	L0002057	VOLUME	563708.004	4183351.605	3.00
LOCATION	L0002058	VOLUME	563708.227	4183351.492	3.00
LOCATION	L0002059	VOLUME	563708.450	4183351.379	3.00
LOCATION	L0002060	VOLUME	563708.673	4183351.266	3.00
LOCATION	L0002061	VOLUME	563708.896	4183351.153	3.00
LOCATION	L0002062	VOLUME	563709.119	4183351.040	3.00
LOCATION	L0002063	VOLUME	563709.342	4183350.927	3.00
LOCATION	L0002064	VOLUME	563709.565	4183350.814	3.00
LOCATION	L0002065	VOLUME	563709.788	4183350.701	3.00
LOCATION	L0002066	VOLUME	563710.011	4183350.588	3.00
LOCATION	L0002067	VOLUME	563710.234	4183350.475	3.00
LOCATION	L0002068	VOLUME	563710.457	4183350.362	3.00
LOCATION	L0002069	VOLUME	563710.680	4183350.249	3.00
LOCATION	L0002070	VOLUME	563710.903	4183350.136	3.00
LOCATION	L0002071	VOLUME	563711.126	4183350.023	3.00
LOCATION	L0002072	VOLUME	563711.349	4183349.910	3.00
LOCATION	L0002073	VOLUME	563711.572	4183349.797	3.00
LOCATION	L0002074	VOLUME	563711.795	4183349.684	3.00
LOCATION	L0002075	VOLUME	563712.018	4183349.571	2.99
LOCATION	L0002076	VOLUME	563712.241	4183349.458	2.99
LOCATION	L0002077	VOLUME	563712.464	4183349.345	2.99

LOCATION	L0002078	VOLUME	563712.687	4183349.232	2.99
LOCATION	L0002079	VOLUME	563712.910	4183349.119	2.99
LOCATION	L0002080	VOLUME	563713.133	4183349.006	2.99
LOCATION	L0002081	VOLUME	563713.356	4183348.892	2.98
LOCATION	L0002082	VOLUME	563713.579	4183348.779	2.98
LOCATION	L0002083	VOLUME	563713.802	4183348.666	2.98
LOCATION	L0002084	VOLUME	563714.025	4183348.553	2.98
LOCATION	L0002085	VOLUME	563714.248	4183348.440	2.98
LOCATION	L0002086	VOLUME	563714.471	4183348.327	2.98
LOCATION	L0002087	VOLUME	563714.694	4183348.214	2.98
LOCATION	L0002088	VOLUME	563714.917	4183348.101	2.98
LOCATION	L0002089	VOLUME	563715.140	4183347.988	2.97
LOCATION	L0002090	VOLUME	563715.363	4183347.875	2.97
LOCATION	L0002091	VOLUME	563715.586	4183347.762	2.97
LOCATION	L0002092	VOLUME	563715.809	4183347.649	2.97
LOCATION	L0002093	VOLUME	563716.032	4183347.536	2.97
LOCATION	L0002094	VOLUME	563716.255	4183347.423	2.97
LOCATION	L0002095	VOLUME	563716.478	4183347.310	2.97
LOCATION	L0002096	VOLUME	563716.701	4183347.197	2.97
LOCATION	L0002097	VOLUME	563716.924	4183347.084	2.96
LOCATION	L0002098	VOLUME	563717.147	4183346.971	2.96
LOCATION	L0002099	VOLUME	563717.370	4183346.858	2.96
LOCATION	L0002100	VOLUME	563717.593	4183346.745	2.96
LOCATION	L0002101	VOLUME	563717.816	4183346.632	2.96
LOCATION	L0002102	VOLUME	563718.039	4183346.519	2.96
LOCATION	L0002103	VOLUME	563718.262	4183346.406	2.96
LOCATION	L0002104	VOLUME	563718.485	4183346.293	2.96
LOCATION	L0002105	VOLUME	563718.708	4183346.180	2.95
LOCATION	L0002106	VOLUME	563718.931	4183346.066	2.95
LOCATION	L0002107	VOLUME	563719.154	4183345.953	2.95
LOCATION	L0002108	VOLUME	563719.377	4183345.840	2.95
LOCATION	L0002109	VOLUME	563719.599	4183345.727	2.95
LOCATION	L0002110	VOLUME	563719.822	4183345.614	2.95
LOCATION	L0002111	VOLUME	563720.045	4183345.501	2.95
LOCATION	L0002112	VOLUME	563720.268	4183345.388	2.95
LOCATION	L0002113	VOLUME	563720.491	4183345.275	2.95
LOCATION	L0002114	VOLUME	563720.714	4183345.162	2.95
LOCATION	L0002115	VOLUME	563720.937	4183345.049	2.95

LOCATION	L0002116	VOLUME	563721.160	4183344.936	2.95
LOCATION	L0002117	VOLUME	563721.383	4183344.823	2.95
LOCATION	L0002118	VOLUME	563721.606	4183344.710	2.95
LOCATION	L0002119	VOLUME	563721.829	4183344.597	2.95
LOCATION	L0002120	VOLUME	563722.052	4183344.484	2.95
LOCATION	L0002121	VOLUME	563722.275	4183344.371	2.95
LOCATION	L0002122	VOLUME	563722.498	4183344.258	2.95
LOCATION	L0002123	VOLUME	563722.721	4183344.145	2.95
LOCATION	L0002124	VOLUME	563722.944	4183344.032	2.95
LOCATION	L0002125	VOLUME	563723.167	4183343.919	2.95
LOCATION	L0002126	VOLUME	563723.390	4183343.806	3.12
LOCATION	L0002127	VOLUME	563723.613	4183343.693	3.11
LOCATION	L0002128	VOLUME	563723.836	4183343.580	3.11
LOCATION	L0002129	VOLUME	563724.059	4183343.467	3.11
LOCATION	L0002130	VOLUME	563724.282	4183343.353	3.11
LOCATION	L0002131	VOLUME	563724.505	4183343.240	3.11
LOCATION	L0002132	VOLUME	563724.728	4183343.127	3.10
LOCATION	L0002133	VOLUME	563724.951	4183343.014	3.11
LOCATION	L0002134	VOLUME	563725.174	4183342.901	3.10
LOCATION	L0002135	VOLUME	563725.397	4183342.788	3.10
LOCATION	L0002136	VOLUME	563725.620	4183342.675	3.10
LOCATION	L0002137	VOLUME	563725.843	4183342.562	3.10
LOCATION	L0002138	VOLUME	563726.066	4183342.449	3.10
LOCATION	L0002139	VOLUME	563726.289	4183342.336	3.10
LOCATION	L0002140	VOLUME	563726.512	4183342.223	3.10
LOCATION	L0002141	VOLUME	563726.735	4183342.110	3.10
LOCATION	L0002142	VOLUME	563726.958	4183341.997	3.10
LOCATION	L0002143	VOLUME	563727.181	4183341.884	3.09
LOCATION	L0002144	VOLUME	563727.404	4183341.771	3.10
LOCATION	L0002145	VOLUME	563727.627	4183341.658	3.09
LOCATION	L0002146	VOLUME	563727.850	4183341.545	3.10
LOCATION	L0002147	VOLUME	563728.073	4183341.432	3.09
LOCATION	L0002148	VOLUME	563728.296	4183341.319	3.10
LOCATION	L0002149	VOLUME	563728.519	4183341.206	3.10
LOCATION	L0002150	VOLUME	563728.742	4183341.093	3.10
LOCATION	L0002151	VOLUME	563728.965	4183340.980	3.10
LOCATION	L0002152	VOLUME	563729.188	4183340.867	3.10
LOCATION	L0002153	VOLUME	563729.411	4183340.754	3.10

LOCATION	L0002154	VOLUME	563729.634	4183340.641	3.10
LOCATION	L0002155	VOLUME	563729.857	4183340.527	3.11
LOCATION	L0002156	VOLUME	563730.080	4183340.414	3.10
LOCATION	L0002157	VOLUME	563730.303	4183340.301	3.11
LOCATION	L0002158	VOLUME	563730.526	4183340.188	3.11
LOCATION	L0002159	VOLUME	563730.749	4183340.075	3.12
LOCATION	L0002160	VOLUME	563730.972	4183339.962	3.12
LOCATION	L0002161	VOLUME	563731.195	4183339.849	3.12
LOCATION	L0002162	VOLUME	563731.418	4183339.736	3.12
LOCATION	L0002163	VOLUME	563731.641	4183339.623	3.13
LOCATION	L0002164	VOLUME	563731.864	4183339.510	3.13
LOCATION	L0002165	VOLUME	563732.087	4183339.397	3.13
LOCATION	L0002166	VOLUME	563732.310	4183339.284	3.14
LOCATION	L0002167	VOLUME	563732.533	4183339.171	3.14
LOCATION	L0002168	VOLUME	563732.756	4183339.058	3.15
LOCATION	L0002169	VOLUME	563732.979	4183338.945	3.15
LOCATION	L0002170	VOLUME	563733.202	4183338.832	3.16
LOCATION	L0002171	VOLUME	563733.424	4183338.719	3.16
LOCATION	L0002172	VOLUME	563733.647	4183338.606	3.17
LOCATION	L0002173	VOLUME	563733.870	4183338.493	3.17
LOCATION	L0002174	VOLUME	563734.093	4183338.380	3.18
LOCATION	L0002175	VOLUME	563734.316	4183338.267	3.19
LOCATION	L0002176	VOLUME	563734.539	4183338.154	3.19
LOCATION	L0002177	VOLUME	563734.762	4183338.041	3.20
LOCATION	L0002178	VOLUME	563734.985	4183337.928	3.20
LOCATION	L0002179	VOLUME	563735.208	4183337.815	3.21
LOCATION	L0002180	VOLUME	563735.431	4183337.701	3.22
LOCATION	L0002181	VOLUME	563735.654	4183337.588	3.23
LOCATION	L0002182	VOLUME	563735.877	4183337.475	3.23
LOCATION	L0002183	VOLUME	563736.100	4183337.362	2.52
LOCATION	L0002184	VOLUME	563736.323	4183337.249	2.52
LOCATION	L0002185	VOLUME	563736.546	4183337.136	2.51
LOCATION	L0002186	VOLUME	563736.769	4183337.023	2.52
LOCATION	L0002187	VOLUME	563736.992	4183336.910	2.51
LOCATION	L0002188	VOLUME	563737.215	4183336.797	2.52
LOCATION	L0002189	VOLUME	563737.438	4183336.684	2.51
LOCATION	L0002190	VOLUME	563737.661	4183336.571	2.52
LOCATION	L0002191	VOLUME	563737.884	4183336.458	2.51

LOCATION	L0002192	VOLUME	563738.107	4183336.345	2.52
LOCATION	L0002193	VOLUME	563738.330	4183336.232	2.51
LOCATION	L0002194	VOLUME	563738.553	4183336.119	2.52
LOCATION	L0002195	VOLUME	563738.776	4183336.006	2.52
LOCATION	L0002196	VOLUME	563738.999	4183335.893	2.51
LOCATION	L0002197	VOLUME	563739.222	4183335.780	2.52
LOCATION	L0002198	VOLUME	563739.445	4183335.667	2.51
LOCATION	L0002199	VOLUME	563739.668	4183335.554	2.52
LOCATION	L0002200	VOLUME	563739.891	4183335.441	2.52
LOCATION	L0002201	VOLUME	563740.114	4183335.328	2.52
LOCATION	L0002202	VOLUME	563740.337	4183335.215	2.52
LOCATION	L0002203	VOLUME	563740.560	4183335.102	2.52
LOCATION	L0002204	VOLUME	563740.783	4183334.988	2.52
LOCATION	L0002205	VOLUME	563741.006	4183334.875	2.52
LOCATION	L0002206	VOLUME	563741.229	4183334.762	2.52
LOCATION	L0002207	VOLUME	563741.452	4183334.649	2.52
LOCATION	L0002208	VOLUME	563741.675	4183334.536	2.53
LOCATION	L0002209	VOLUME	563741.898	4183334.423	2.53
LOCATION	L0002210	VOLUME	563742.121	4183334.310	2.53
LOCATION	L0002211	VOLUME	563742.344	4183334.197	2.53
LOCATION	L0002212	VOLUME	563742.567	4183334.084	2.54
LOCATION	L0002213	VOLUME	563742.790	4183333.971	2.53
LOCATION	L0002214	VOLUME	563743.013	4183333.858	2.54
LOCATION	L0002215	VOLUME	563743.236	4183333.745	2.54
LOCATION	L0002216	VOLUME	563743.459	4183333.632	2.54
LOCATION	L0002217	VOLUME	563743.682	4183333.519	2.54
LOCATION	L0002218	VOLUME	563743.905	4183333.406	2.54
LOCATION	L0002219	VOLUME	563744.128	4183333.293	2.55
LOCATION	L0002220	VOLUME	563744.351	4183333.180	2.55
LOCATION	L0002221	VOLUME	563744.574	4183333.067	2.56
LOCATION	L0002222	VOLUME	563744.797	4183332.954	2.56
LOCATION	L0002223	VOLUME	563745.020	4183332.841	2.56
LOCATION	L0002224	VOLUME	563745.243	4183332.728	2.56
LOCATION	L0002225	VOLUME	563745.466	4183332.615	2.57
LOCATION	L0002226	VOLUME	563745.689	4183332.502	2.57
LOCATION	L0002227	VOLUME	563745.912	4183332.389	2.57
LOCATION	L0002228	VOLUME	563746.135	4183332.276	2.58
LOCATION	L0002229	VOLUME	563746.358	4183332.162	2.58

LOCATION	L0002230	VOLUME	563746.581	4183332.049	2.59
LOCATION	L0002231	VOLUME	563746.804	4183331.936	2.59
LOCATION	L0002232	VOLUME	563747.027	4183331.823	2.60
LOCATION	L0002233	VOLUME	563747.250	4183331.710	2.60
LOCATION	L0002234	VOLUME	563747.472	4183331.597	2.61
LOCATION	L0002235	VOLUME	563747.695	4183331.484	2.61
LOCATION	L0002236	VOLUME	563747.918	4183331.371	2.62
LOCATION	L0002237	VOLUME	563748.141	4183331.258	2.62
LOCATION	L0002238	VOLUME	563748.364	4183331.145	2.62
LOCATION	L0002239	VOLUME	563748.587	4183331.032	2.63
LOCATION	L0002240	VOLUME	563748.810	4183330.919	2.63
LOCATION	L0002241	VOLUME	563749.033	4183330.806	2.64
LOCATION	L0002242	VOLUME	563749.256	4183330.693	2.64
LOCATION	L0002243	VOLUME	563749.479	4183330.580	2.65
LOCATION	L0002244	VOLUME	563749.702	4183330.467	2.65
LOCATION	L0002245	VOLUME	563749.925	4183330.354	2.67
LOCATION	L0002246	VOLUME	563750.148	4183330.241	2.67
LOCATION	L0002247	VOLUME	563750.371	4183330.128	2.67
LOCATION	L0002248	VOLUME	563750.594	4183330.015	2.68
LOCATION	L0002249	VOLUME	563750.817	4183329.902	2.68
LOCATION	L0002250	VOLUME	563751.040	4183329.789	2.69
LOCATION	L0002251	VOLUME	563751.263	4183329.676	2.69
LOCATION	L0002252	VOLUME	563751.486	4183329.563	2.71
LOCATION	L0002253	VOLUME	563751.709	4183329.450	2.71
LOCATION	L0002254	VOLUME	563751.932	4183329.336	2.72
LOCATION	L0002255	VOLUME	563752.155	4183329.223	2.72
LOCATION	L0002256	VOLUME	563752.378	4183329.110	2.73
LOCATION	L0002257	VOLUME	563752.601	4183328.997	2.74
LOCATION	L0002258	VOLUME	563752.824	4183328.884	2.74
LOCATION	L0002259	VOLUME	563753.047	4183328.771	2.75
LOCATION	L0002260	VOLUME	563753.270	4183328.658	2.75
LOCATION	L0002261	VOLUME	563753.493	4183328.545	2.76
LOCATION	L0002262	VOLUME	563753.716	4183328.432	2.76
LOCATION	L0002263	VOLUME	563753.939	4183328.319	2.78
LOCATION	L0002264	VOLUME	563754.162	4183328.206	2.78
LOCATION	L0002265	VOLUME	563754.385	4183328.093	2.79
LOCATION	L0002266	VOLUME	563754.608	4183327.980	2.79
LOCATION	L0002267	VOLUME	563754.831	4183327.867	2.80

LOCATION	L0002268	VOLUME	563755.054	4183327.754	2.80
LOCATION	L0002269	VOLUME	563755.277	4183327.641	2.80
LOCATION	L0002270	VOLUME	563755.500	4183327.528	2.81
LOCATION	L0002271	VOLUME	563755.723	4183327.415	2.81
LOCATION	L0002272	VOLUME	563755.946	4183327.302	2.82
LOCATION	L0002273	VOLUME	563756.169	4183327.189	2.82
LOCATION	L0002274	VOLUME	563756.392	4183327.076	2.84
LOCATION	L0002275	VOLUME	563756.615	4183326.963	2.84
LOCATION	L0002276	VOLUME	563756.838	4183326.850	2.84
LOCATION	L0002277	VOLUME	563757.061	4183326.737	2.84
LOCATION	L0002278	VOLUME	563757.284	4183326.623	2.85
LOCATION	L0002279	VOLUME	563757.507	4183326.510	2.85
LOCATION	L0002280	VOLUME	563757.730	4183326.397	2.85
LOCATION	L0002281	VOLUME	563757.953	4183326.284	2.86
LOCATION	L0002282	VOLUME	563758.176	4183326.171	2.86
LOCATION	L0002283	VOLUME	563758.399	4183326.058	2.87
LOCATION	L0002284	VOLUME	563758.622	4183325.945	2.87
LOCATION	L0002285	VOLUME	563758.845	4183325.832	2.88
LOCATION	L0002286	VOLUME	563759.068	4183325.719	2.87
LOCATION	L0002287	VOLUME	563759.291	4183325.606	2.88
LOCATION	L0002288	VOLUME	563759.514	4183325.493	2.88
LOCATION	L0002289	VOLUME	563759.737	4183325.380	2.88
LOCATION	L0002290	VOLUME	563759.960	4183325.267	2.88
LOCATION	L0002291	VOLUME	563760.183	4183325.154	2.08
LOCATION	L0002292	VOLUME	563760.406	4183325.041	2.08
LOCATION	L0002293	VOLUME	563760.629	4183324.928	2.08
LOCATION	L0002294	VOLUME	563760.852	4183324.815	2.08
LOCATION	L0002295	VOLUME	563761.075	4183324.702	2.07
LOCATION	L0002296	VOLUME	563761.297	4183324.589	2.07
LOCATION	L0002297	VOLUME	563761.520	4183324.476	2.07
LOCATION	L0002298	VOLUME	563761.743	4183324.363	2.07
LOCATION	L0002299	VOLUME	563761.966	4183324.250	2.07
LOCATION	L0002300	VOLUME	563762.189	4183324.137	2.07
LOCATION	L0002301	VOLUME	563762.412	4183324.024	2.07
LOCATION	L0002302	VOLUME	563762.635	4183323.911	2.07
LOCATION	L0002303	VOLUME	563762.858	4183323.797	2.07
LOCATION	L0002304	VOLUME	563763.081	4183323.684	2.06
LOCATION	L0002305	VOLUME	563763.304	4183323.571	2.06

LOCATION	L0002306	VOLUME	563763.527	4183323.458	2.06
LOCATION	L0002307	VOLUME	563763.750	4183323.345	2.06
LOCATION	L0002308	VOLUME	563763.973	4183323.232	2.06
LOCATION	L0002309	VOLUME	563764.196	4183323.119	2.06
LOCATION	L0002310	VOLUME	563764.419	4183323.006	2.06
LOCATION	L0002311	VOLUME	563764.642	4183322.893	2.06
LOCATION	L0002312	VOLUME	563764.865	4183322.780	2.05
LOCATION	L0002313	VOLUME	563765.088	4183322.667	2.05
LOCATION	L0002314	VOLUME	563765.311	4183322.554	2.05
LOCATION	L0002315	VOLUME	563765.534	4183322.441	2.05
LOCATION	L0002316	VOLUME	563765.757	4183322.328	2.05
LOCATION	L0002317	VOLUME	563765.980	4183322.215	2.05
LOCATION	L0002318	VOLUME	563766.203	4183322.102	2.05
LOCATION	L0002319	VOLUME	563766.426	4183321.989	2.05
LOCATION	L0002320	VOLUME	563766.649	4183321.876	2.05
LOCATION	L0002321	VOLUME	563766.872	4183321.763	2.04
LOCATION	L0002322	VOLUME	563767.095	4183321.650	2.04
LOCATION	L0002323	VOLUME	563767.318	4183321.537	2.04
LOCATION	L0002324	VOLUME	563767.541	4183321.424	2.04
LOCATION	L0002325	VOLUME	563767.764	4183321.311	2.04
LOCATION	L0002326	VOLUME	563767.987	4183321.198	2.04
LOCATION	L0002327	VOLUME	563768.210	4183321.085	2.04
LOCATION	L0002328	VOLUME	563768.433	4183320.971	2.04
LOCATION	L0002329	VOLUME	563768.656	4183320.858	2.04
LOCATION	L0002330	VOLUME	563768.879	4183320.745	2.04
LOCATION	L0002331	VOLUME	563769.102	4183320.632	2.03
LOCATION	L0002332	VOLUME	563769.325	4183320.519	2.03
LOCATION	L0002333	VOLUME	563769.548	4183320.406	2.03
LOCATION	L0002334	VOLUME	563769.771	4183320.293	2.03
LOCATION	L0002335	VOLUME	563769.994	4183320.180	2.03
LOCATION	L0002336	VOLUME	563770.217	4183320.067	2.03
LOCATION	L0002337	VOLUME	563770.440	4183319.954	2.03
LOCATION	L0002338	VOLUME	563770.663	4183319.841	2.34
LOCATION	L0002339	VOLUME	563770.886	4183319.728	2.32
LOCATION	L0002340	VOLUME	563771.109	4183319.615	2.31
LOCATION	L0002341	VOLUME	563771.332	4183319.502	2.30
LOCATION	L0002342	VOLUME	563771.555	4183319.389	2.28
LOCATION	L0002343	VOLUME	563771.778	4183319.276	2.27

LOCATION	L0002344	VOLUME	563772.001	4183319.163	2.25
LOCATION	L0002345	VOLUME	563772.224	4183319.050	2.24
LOCATION	L0002346	VOLUME	563772.447	4183318.937	2.23
LOCATION	L0002347	VOLUME	563772.670	4183318.824	2.21
LOCATION	L0002348	VOLUME	563772.893	4183318.711	2.20
LOCATION	L0002349	VOLUME	563773.116	4183318.598	2.19
LOCATION	L0002350	VOLUME	563773.339	4183318.485	2.18
LOCATION	L0002351	VOLUME	563773.562	4183318.372	2.16
LOCATION	L0002352	VOLUME	563773.785	4183318.259	2.15
LOCATION	L0002353	VOLUME	563774.008	4183318.145	2.14
LOCATION	L0002354	VOLUME	563774.231	4183318.032	2.13
LOCATION	L0002355	VOLUME	563774.454	4183317.919	2.12
LOCATION	L0002356	VOLUME	563774.677	4183317.806	2.11
LOCATION	L0002357	VOLUME	563774.900	4183317.693	2.11
LOCATION	L0002358	VOLUME	563775.122	4183317.580	2.10
LOCATION	L0002359	VOLUME	563775.345	4183317.467	2.09
LOCATION	L0002360	VOLUME	563775.568	4183317.354	2.08
LOCATION	L0002361	VOLUME	563775.791	4183317.241	2.07
LOCATION	L0002362	VOLUME	563776.014	4183317.128	2.07
LOCATION	L0002363	VOLUME	563776.237	4183317.015	2.06
LOCATION	L0002364	VOLUME	563776.460	4183316.902	2.06
LOCATION	L0002365	VOLUME	563776.683	4183316.789	2.05
LOCATION	L0002366	VOLUME	563776.906	4183316.676	2.04
LOCATION	L0002367	VOLUME	563777.129	4183316.563	2.04
LOCATION	L0002368	VOLUME	563777.352	4183316.450	2.04
LOCATION	L0002369	VOLUME	563777.575	4183316.337	2.03
LOCATION	L0002370	VOLUME	563777.798	4183316.224	2.03
LOCATION	L0002371	VOLUME	563778.021	4183316.111	2.03
LOCATION	L0002372	VOLUME	563778.244	4183315.998	2.02
LOCATION	L0002373	VOLUME	563778.467	4183315.885	2.02
LOCATION	L0002374	VOLUME	563778.690	4183315.772	2.02
LOCATION	L0002375	VOLUME	563778.913	4183315.659	2.02
LOCATION	L0002376	VOLUME	563779.136	4183315.546	2.02
LOCATION	L0002377	VOLUME	563779.359	4183315.432	2.01
LOCATION	L0002378	VOLUME	563779.582	4183315.319	2.01
LOCATION	L0002379	VOLUME	563779.805	4183315.206	2.01
LOCATION	L0002380	VOLUME	563780.028	4183315.093	2.01
LOCATION	L0002381	VOLUME	563780.251	4183314.980	2.01

LOCATION	L0002382	VOLUME	563780.474	4183314.867	2.01
LOCATION	L0002383	VOLUME	563780.697	4183314.754	2.01
LOCATION	L0002384	VOLUME	563780.920	4183314.641	2.01
LOCATION	L0002385	VOLUME	563781.143	4183314.528	2.01
LOCATION	L0002386	VOLUME	563781.366	4183314.415	2.01
LOCATION	L0002387	VOLUME	563781.589	4183314.302	2.01
LOCATION	L0002388	VOLUME	563781.812	4183314.189	2.01
LOCATION	L0002389	VOLUME	563782.035	4183314.076	2.02
LOCATION	L0002390	VOLUME	563782.258	4183313.963	2.02
LOCATION	L0002391	VOLUME	563782.481	4183313.850	2.02
LOCATION	L0002392	VOLUME	563782.704	4183313.737	2.02
LOCATION	L0002393	VOLUME	563782.927	4183313.624	2.02
LOCATION	L0002394	VOLUME	563783.150	4183313.511	2.02
LOCATION	L0002395	VOLUME	563783.373	4183313.398	2.02
LOCATION	L0002396	VOLUME	563783.596	4183313.285	2.03
LOCATION	L0002397	VOLUME	563783.819	4183313.172	2.03
LOCATION	L0002398	VOLUME	563784.042	4183313.059	2.04
LOCATION	L0002399	VOLUME	563784.265	4183312.946	2.04
LOCATION	L0002400	VOLUME	563784.488	4183312.833	2.05
LOCATION	L0002401	VOLUME	563784.711	4183312.720	2.05
LOCATION	L0002402	VOLUME	563784.934	4183312.606	2.06
LOCATION	L0002403	VOLUME	563785.157	4183312.493	2.06
LOCATION	L0002404	VOLUME	563785.380	4183312.380	2.06
LOCATION	L0002405	VOLUME	563785.603	4183312.267	2.07
LOCATION	L0002406	VOLUME	563785.826	4183312.154	2.07
LOCATION	L0002407	VOLUME	563786.049	4183312.041	2.08
LOCATION	L0002408	VOLUME	563786.272	4183311.928	2.09
LOCATION	L0002409	VOLUME	563786.495	4183311.815	2.09
LOCATION	L0002410	VOLUME	563786.718	4183311.702	2.10
LOCATION	L0002411	VOLUME	563786.941	4183311.589	2.10
LOCATION	L0002412	VOLUME	563787.164	4183311.476	2.11
LOCATION	L0002413	VOLUME	563787.387	4183311.363	2.12
LOCATION	L0002414	VOLUME	563787.610	4183311.250	2.12
LOCATION	L0002415	VOLUME	563787.833	4183311.137	2.12
LOCATION	L0002416	VOLUME	563788.056	4183311.024	2.13
LOCATION	L0002417	VOLUME	563788.279	4183310.911	2.14
LOCATION	L0002418	VOLUME	563788.502	4183310.798	2.15
LOCATION	L0002419	VOLUME	563788.725	4183310.685	2.15

LOCATION	L0002420	VOLUME	563788.948	4183310.572	2.16
LOCATION	L0002421	VOLUME	563789.170	4183310.459	2.16
LOCATION	L0002422	VOLUME	563789.393	4183310.346	2.17
LOCATION	L0002423	VOLUME	563789.616	4183310.233	2.18
LOCATION	L0002424	VOLUME	563789.839	4183310.120	2.18
LOCATION	L0002425	VOLUME	563790.062	4183310.007	2.19
LOCATION	L0002426	VOLUME	563790.285	4183309.894	2.19
LOCATION	L0002427	VOLUME	563790.508	4183309.780	2.20
LOCATION	L0002428	VOLUME	563790.731	4183309.667	2.21
LOCATION	L0002429	VOLUME	563790.954	4183309.554	2.21
LOCATION	L0002430	VOLUME	563791.177	4183309.441	2.22
LOCATION	L0002431	VOLUME	563791.400	4183309.328	2.23
LOCATION	L0002432	VOLUME	563791.623	4183309.215	2.23
LOCATION	L0002433	VOLUME	563791.846	4183309.102	2.24
LOCATION	L0002434	VOLUME	563792.069	4183308.989	2.24
LOCATION	L0002435	VOLUME	563792.292	4183308.876	2.24
LOCATION	L0002436	VOLUME	563792.515	4183308.763	2.25
LOCATION	L0002437	VOLUME	563792.738	4183308.650	2.26
LOCATION	L0002438	VOLUME	563792.961	4183308.537	2.26
LOCATION	L0002439	VOLUME	563793.184	4183308.424	2.27
LOCATION	L0002440	VOLUME	563793.407	4183308.311	2.27
LOCATION	L0002441	VOLUME	563793.630	4183308.198	2.28
LOCATION	L0002442	VOLUME	563793.853	4183308.085	2.28
LOCATION	L0002443	VOLUME	563794.076	4183307.972	2.29
LOCATION	L0002444	VOLUME	563794.299	4183307.859	2.29
LOCATION	L0002445	VOLUME	563794.522	4183307.746	2.30
LOCATION	L0002446	VOLUME	563794.745	4183307.633	2.30
LOCATION	L0002447	VOLUME	563794.968	4183307.520	2.31
LOCATION	L0002448	VOLUME	563795.191	4183307.407	2.31
LOCATION	L0002449	VOLUME	563795.414	4183307.294	2.32
LOCATION	L0002450	VOLUME	563795.637	4183307.181	2.32
LOCATION	L0002451	VOLUME	563795.860	4183307.067	2.33
LOCATION	L0002452	VOLUME	563796.083	4183306.954	2.33
LOCATION	L0002453	VOLUME	563796.306	4183306.841	2.34
LOCATION	L0002454	VOLUME	563796.529	4183306.728	2.34
LOCATION	L0002455	VOLUME	563796.752	4183306.615	2.35
LOCATION	L0002456	VOLUME	563796.975	4183306.502	2.35
LOCATION	L0002457	VOLUME	563797.198	4183306.389	2.35

LOCATION	L0002458	VOLUME	563797.421	4183306.276	2.36
LOCATION	L0002459	VOLUME	563797.644	4183306.163	2.36
LOCATION	L0002460	VOLUME	563797.867	4183306.050	2.37
LOCATION	L0002461	VOLUME	563798.090	4183305.937	2.37
LOCATION	L0002462	VOLUME	563798.313	4183305.824	2.38
LOCATION	L0002463	VOLUME	563798.536	4183305.711	2.38
LOCATION	L0002464	VOLUME	563798.759	4183305.598	2.39
LOCATION	L0002465	VOLUME	563798.982	4183305.485	2.39
LOCATION	L0002466	VOLUME	563799.205	4183305.372	2.40
LOCATION	L0002467	VOLUME	563799.428	4183305.259	2.40
LOCATION	L0002468	VOLUME	563799.651	4183305.146	2.41
LOCATION	L0002469	VOLUME	563799.874	4183305.033	2.42
LOCATION	L0002470	VOLUME	563800.097	4183304.920	2.42
LOCATION	L0002471	VOLUME	563800.320	4183304.807	2.43
LOCATION	L0002472	VOLUME	563800.543	4183304.694	2.43
LOCATION	L0002473	VOLUME	563800.766	4183304.581	2.44
LOCATION	L0002474	VOLUME	563800.989	4183304.468	2.45
LOCATION	L0002475	VOLUME	563801.212	4183304.355	2.46
LOCATION	L0002476	VOLUME	563801.435	4183304.241	2.46
LOCATION	L0002477	VOLUME	563801.658	4183304.128	2.46
LOCATION	L0002478	VOLUME	563801.881	4183304.015	2.48
LOCATION	L0002479	VOLUME	563802.104	4183303.902	2.48
LOCATION	L0002480	VOLUME	563802.327	4183303.789	2.49
LOCATION	L0002481	VOLUME	563802.550	4183303.676	2.49
LOCATION	L0002482	VOLUME	563802.773	4183303.563	2.51
LOCATION	L0002483	VOLUME	563802.995	4183303.450	2.51
LOCATION	L0002484	VOLUME	563803.218	4183303.337	2.52
LOCATION	L0002485	VOLUME	563803.441	4183303.224	2.53
LOCATION	L0002486	VOLUME	563803.664	4183303.111	2.54
LOCATION	L0002487	VOLUME	563803.887	4183302.998	2.54
LOCATION	L0002488	VOLUME	563804.110	4183302.885	2.55
LOCATION	L0002489	VOLUME	563804.333	4183302.772	2.56
LOCATION	L0002490	VOLUME	563804.556	4183302.659	2.56
LOCATION	L0002491	VOLUME	563804.779	4183302.546	2.58
LOCATION	L0002492	VOLUME	563805.002	4183302.433	2.58
LOCATION	L0002493	VOLUME	563805.225	4183302.320	2.60
LOCATION	L0002494	VOLUME	563805.448	4183302.207	2.60
LOCATION	L0002495	VOLUME	563805.671	4183302.094	2.61

LOCATION	L0002496	VOLUME	563805.894	4183301.981	2.62
LOCATION	L0002497	VOLUME	563806.117	4183301.868	2.63
LOCATION	L0002498	VOLUME	563806.340	4183301.755	2.63
LOCATION	L0002499	VOLUME	563806.563	4183301.642	2.64
LOCATION	L0002500	VOLUME	563806.786	4183301.529	2.65
LOCATION	L0002501	VOLUME	563807.009	4183301.415	2.65
LOCATION	L0002502	VOLUME	563807.232	4183301.302	2.67
LOCATION	L0002503	VOLUME	563807.455	4183301.189	2.67
LOCATION	L0002504	VOLUME	563807.678	4183301.076	2.69
LOCATION	L0002505	VOLUME	563807.901	4183300.963	2.69
LOCATION	L0002506	VOLUME	563808.124	4183300.850	3.23
LOCATION	L0002507	VOLUME	563808.347	4183300.737	3.24
LOCATION	L0002508	VOLUME	563808.570	4183300.624	3.27
LOCATION	L0002509	VOLUME	563808.793	4183300.511	3.28
LOCATION	L0002510	VOLUME	563809.016	4183300.398	3.29
LOCATION	L0002511	VOLUME	563809.239	4183300.285	3.33
LOCATION	L0002512	VOLUME	563809.462	4183300.172	3.34
LOCATION	L0002513	VOLUME	563809.685	4183300.059	3.37
LOCATION	L0002514	VOLUME	563809.908	4183299.946	3.38
LOCATION	L0002515	VOLUME	563810.131	4183299.833	3.41
LOCATION	L0002516	VOLUME	563810.354	4183299.720	3.43
LOCATION	L0002517	VOLUME	563810.577	4183299.607	3.46
LOCATION	L0002518	VOLUME	563810.800	4183299.494	3.47
LOCATION	L0002519	VOLUME	563811.023	4183299.381	3.49
LOCATION	L0002520	VOLUME	563811.246	4183299.268	3.52
LOCATION	L0002521	VOLUME	563811.469	4183299.155	3.54
LOCATION	L0002522	VOLUME	563811.692	4183299.042	3.57
LOCATION	L0002523	VOLUME	563811.915	4183298.929	3.58
LOCATION	L0002524	VOLUME	563812.138	4183298.816	3.61
LOCATION	L0002525	VOLUME	563812.361	4183298.702	3.63
LOCATION	L0002526	VOLUME	563812.584	4183298.589	3.66
LOCATION	L0002527	VOLUME	563812.807	4183298.476	3.68
LOCATION	L0002528	VOLUME	563813.030	4183298.363	3.71
LOCATION	L0002529	VOLUME	563813.253	4183298.250	3.72
LOCATION	L0002530	VOLUME	563813.476	4183298.137	3.74
LOCATION	L0002531	VOLUME	563813.699	4183298.024	3.77
LOCATION	L0002532	VOLUME	563813.922	4183297.911	3.79
LOCATION	L0002533	VOLUME	563814.145	4183297.798	3.82

LOCATION	L0002534	VOLUME	563814.368	4183297.685	3.83
LOCATION	L0002535	VOLUME	563814.591	4183297.572	3.86
LOCATION	L0002536	VOLUME	563814.814	4183297.459	3.88
LOCATION	L0002537	VOLUME	563815.037	4183297.346	3.91
LOCATION	L0002538	VOLUME	563815.260	4183297.233	3.92
LOCATION	L0002539	VOLUME	563815.483	4183297.120	3.96
LOCATION	L0002540	VOLUME	563815.706	4183297.007	3.97
LOCATION	L0002541	VOLUME	563815.929	4183296.894	3.99
LOCATION	L0002542	VOLUME	563816.152	4183296.781	4.02
LOCATION	L0002543	VOLUME	563816.375	4183296.668	4.03
LOCATION	L0002544	VOLUME	563816.598	4183296.555	4.07
LOCATION	L0002545	VOLUME	563816.820	4183296.442	4.08
LOCATION	L0002546	VOLUME	563817.043	4183296.329	4.11
LOCATION	L0002547	VOLUME	563817.266	4183296.216	4.12
LOCATION	L0002548	VOLUME	563817.489	4183296.103	4.15
LOCATION	L0002549	VOLUME	563817.712	4183295.990	4.17
LOCATION	L0002550	VOLUME	563817.935	4183295.876	4.18
LOCATION	L0002551	VOLUME	563818.158	4183295.763	4.07
LOCATION	L0002552	VOLUME	563818.381	4183295.650	4.09
LOCATION	L0002553	VOLUME	563818.604	4183295.537	4.11
LOCATION	L0002554	VOLUME	563818.827	4183295.424	4.13
LOCATION	L0002555	VOLUME	563819.050	4183295.311	4.16
LOCATION	L0002556	VOLUME	563819.273	4183295.198	4.18
LOCATION	L0002557	VOLUME	563819.496	4183295.085	4.20
LOCATION	L0002558	VOLUME	563819.719	4183294.972	4.23
LOCATION	L0002559	VOLUME	563819.942	4183294.859	4.25
LOCATION	L0002560	VOLUME	563820.165	4183294.746	4.27
LOCATION	L0002561	VOLUME	563820.388	4183294.633	4.29
LOCATION	L0002562	VOLUME	563820.611	4183294.520	4.32
LOCATION	L0002563	VOLUME	563820.834	4183294.407	4.33
LOCATION	L0002564	VOLUME	563821.057	4183294.294	4.36
LOCATION	L0002565	VOLUME	563821.280	4183294.181	4.38
LOCATION	L0002566	VOLUME	563821.503	4183294.068	4.41
LOCATION	L0002567	VOLUME	563821.726	4183293.955	4.43
LOCATION	L0002568	VOLUME	563821.949	4183293.842	4.45
LOCATION	L0002569	VOLUME	563822.172	4183293.729	4.47
LOCATION	L0002570	VOLUME	563822.395	4183293.616	4.50
LOCATION	L0002571	VOLUME	563822.618	4183293.503	4.52

LOCATION	L0002572	VOLUME	563822.841	4183293.390	4.53
LOCATION	L0002573	VOLUME	563823.064	4183293.277	4.56
LOCATION	L0002574	VOLUME	563823.287	4183293.164	4.58
LOCATION	L0002575	VOLUME	563823.510	4183293.050	4.60
LOCATION	L0002576	VOLUME	563823.733	4183292.937	4.62
LOCATION	L0002577	VOLUME	563823.956	4183292.824	4.64
LOCATION	L0002578	VOLUME	563824.179	4183292.711	4.66
LOCATION	L0002579	VOLUME	563824.402	4183292.598	4.68
LOCATION	L0002580	VOLUME	563824.625	4183292.485	4.70
LOCATION	L0002581	VOLUME	563824.848	4183292.372	4.72
LOCATION	L0002582	VOLUME	563825.071	4183292.259	4.73
LOCATION	L0002583	VOLUME	563825.294	4183292.146	4.75
LOCATION	L0002584	VOLUME	563825.517	4183292.033	4.77
LOCATION	L0002585	VOLUME	563825.740	4183291.920	4.78
LOCATION	L0002586	VOLUME	563825.963	4183291.807	4.80
LOCATION	L0002587	VOLUME	563826.186	4183291.694	4.81
LOCATION	L0002588	VOLUME	563826.409	4183291.581	4.83
LOCATION	L0002589	VOLUME	563826.632	4183291.468	4.84
LOCATION	L0002590	VOLUME	563826.855	4183291.355	4.86
LOCATION	L0002591	VOLUME	563827.078	4183291.242	4.86
LOCATION	L0002592	VOLUME	563827.301	4183291.129	4.87
LOCATION	L0002593	VOLUME	563827.524	4183291.016	4.89
LOCATION	L0002594	VOLUME	563827.747	4183290.903	4.90
LOCATION	L0002595	VOLUME	563827.970	4183290.790	4.91
LOCATION	L0002596	VOLUME	563828.193	4183290.677	4.91
LOCATION	L0002597	VOLUME	563828.416	4183290.564	4.93
LOCATION	L0002598	VOLUME	563828.639	4183290.451	4.93
LOCATION	L0002599	VOLUME	563828.862	4183290.338	4.94
LOCATION	L0002600	VOLUME	563829.085	4183290.224	4.95
LOCATION	L0002601	VOLUME	563829.308	4183290.111	4.96
LOCATION	L0002602	VOLUME	563829.531	4183289.998	4.96
LOCATION	L0002603	VOLUME	563829.754	4183289.885	4.96
LOCATION	L0002604	VOLUME	563829.977	4183289.772	4.97
LOCATION	L0002605	VOLUME	563830.200	4183289.659	4.97
LOCATION	L0002606	VOLUME	563830.423	4183289.546	4.97
LOCATION	L0002607	VOLUME	563830.646	4183289.433	4.97
LOCATION	L0002608	VOLUME	563830.868	4183289.320	4.98
LOCATION	L0002609	VOLUME	563831.091	4183289.207	4.98

LOCATION	L0002610	VOLUME	563831.314	4183289.094	4.98
LOCATION	L0002611	VOLUME	563831.537	4183288.981	4.98
LOCATION	L0002612	VOLUME	563831.760	4183288.868	4.98
LOCATION	L0002613	VOLUME	563831.983	4183288.755	4.99
LOCATION	L0002614	VOLUME	563832.206	4183288.642	4.98
LOCATION	L0002615	VOLUME	563832.429	4183288.529	4.98
LOCATION	L0002616	VOLUME	563832.652	4183288.416	4.98
LOCATION	L0002617	VOLUME	563832.875	4183288.303	4.98
LOCATION	L0002618	VOLUME	563833.098	4183288.190	4.98
LOCATION	L0002619	VOLUME	563833.321	4183288.077	4.98
LOCATION	L0002620	VOLUME	563833.544	4183287.964	4.97
LOCATION	L0002621	VOLUME	563833.767	4183287.851	4.97
LOCATION	L0002622	VOLUME	563833.990	4183287.738	4.97
LOCATION	L0002623	VOLUME	563834.213	4183287.625	4.96
LOCATION	L0002624	VOLUME	563834.436	4183287.511	4.96
LOCATION	L0002625	VOLUME	563834.659	4183287.398	4.95
LOCATION	L0002626	VOLUME	563834.882	4183287.285	4.95
LOCATION	L0002627	VOLUME	563835.105	4183287.172	4.94
LOCATION	L0002628	VOLUME	563835.328	4183287.059	4.94
LOCATION	L0002629	VOLUME	563835.551	4183286.946	4.93
LOCATION	L0002630	VOLUME	563835.774	4183286.833	4.92
LOCATION	L0002631	VOLUME	563835.997	4183286.720	4.92
LOCATION	L0002632	VOLUME	563836.220	4183286.607	4.91
LOCATION	L0002633	VOLUME	563836.443	4183286.494	4.90
LOCATION	L0002634	VOLUME	563836.666	4183286.381	4.89
LOCATION	L0002635	VOLUME	563836.889	4183286.268	4.89
LOCATION	L0002636	VOLUME	563837.112	4183286.155	4.88
LOCATION	L0002637	VOLUME	563837.335	4183286.042	4.87
LOCATION	L0002638	VOLUME	563837.558	4183285.929	4.86
LOCATION	L0002639	VOLUME	563837.781	4183285.816	4.85
LOCATION	L0002640	VOLUME	563838.004	4183285.703	4.84
LOCATION	L0002641	VOLUME	563838.227	4183285.590	4.83
LOCATION	L0002642	VOLUME	563838.450	4183285.477	4.83
LOCATION	L0002643	VOLUME	563838.673	4183285.364	4.82
LOCATION	L0002644	VOLUME	563838.896	4183285.251	4.81
LOCATION	L0002645	VOLUME	563839.119	4183285.138	4.80
LOCATION	L0002646	VOLUME	563839.342	4183285.025	4.79
LOCATION	L0002647	VOLUME	563839.565	4183284.912	4.78

LOCATION	L0002648	VOLUME	563839.788	4183284.799	4.77
LOCATION	L0002649	VOLUME	563840.011	4183284.685	4.77
LOCATION	L0002650	VOLUME	563840.234	4183284.572	4.76
LOCATION	L0002651	VOLUME	563840.457	4183284.459	4.75
LOCATION	L0002652	VOLUME	563840.680	4183284.346	4.74
LOCATION	L0002653	VOLUME	563840.903	4183284.233	4.74
LOCATION	L0002654	VOLUME	563841.126	4183284.120	4.73
LOCATION	L0002655	VOLUME	563841.349	4183284.007	4.72
LOCATION	L0002656	VOLUME	563841.572	4183283.894	4.72
LOCATION	L0002657	VOLUME	563841.795	4183283.781	4.71
LOCATION	L0002658	VOLUME	563842.018	4183283.668	4.70
LOCATION	L0002659	VOLUME	563842.241	4183283.555	4.69
LOCATION	L0002660	VOLUME	563842.464	4183283.442	4.69
LOCATION	L0002661	VOLUME	563842.687	4183283.329	4.68
LOCATION	L0002662	VOLUME	563842.910	4183283.216	4.68
LOCATION	L0002663	VOLUME	563843.133	4183283.103	4.67
LOCATION	L0002664	VOLUME	563843.356	4183282.990	4.67
LOCATION	L0002665	VOLUME	563843.579	4183282.877	4.67
LOCATION	L0002666	VOLUME	563843.802	4183282.764	4.67
LOCATION	L0002667	VOLUME	563844.025	4183282.651	4.67
LOCATION	L0002668	VOLUME	563844.248	4183282.538	4.66
LOCATION	L0002669	VOLUME	563844.471	4183282.425	4.66
LOCATION	L0002670	VOLUME	563844.693	4183282.312	4.65
LOCATION	L0002671	VOLUME	563844.916	4183282.199	4.66
LOCATION	L0002672	VOLUME	563845.139	4183282.086	4.65
LOCATION	L0002673	VOLUME	563845.362	4183281.973	4.65
LOCATION	L0002674	VOLUME	563845.585	4183281.859	4.65
LOCATION	L0002675	VOLUME	563845.808	4183281.746	4.65
LOCATION	L0002676	VOLUME	563846.031	4183281.633	4.65
LOCATION	L0002677	VOLUME	563846.254	4183281.520	4.65
LOCATION	L0002678	VOLUME	563846.477	4183281.407	4.65
LOCATION	L0002679	VOLUME	563846.700	4183281.294	4.64
LOCATION	L0002680	VOLUME	563846.923	4183281.181	4.65
LOCATION	L0002681	VOLUME	563847.146	4183281.068	4.64
LOCATION	L0002682	VOLUME	563847.369	4183280.955	4.64
LOCATION	L0002683	VOLUME	563847.592	4183280.842	4.64
LOCATION	L0002684	VOLUME	563847.815	4183280.729	4.64
LOCATION	L0002685	VOLUME	563848.038	4183280.616	4.63

LOCATION	L0002686	VOLUME	563848.261	4183280.503	4.64
LOCATION	L0002687	VOLUME	563848.484	4183280.390	4.64
LOCATION	L0002688	VOLUME	563848.707	4183280.277	4.63
LOCATION	L0002689	VOLUME	563848.930	4183280.164	4.64
LOCATION	L0002690	VOLUME	563849.153	4183280.051	4.63
LOCATION	L0002691	VOLUME	563849.376	4183279.938	4.63
LOCATION	L0002692	VOLUME	563849.599	4183279.825	4.62
LOCATION	L0002693	VOLUME	563849.822	4183279.712	4.63
LOCATION	L0002694	VOLUME	563850.045	4183279.599	4.62
LOCATION	L0002695	VOLUME	563850.268	4183279.486	4.62
LOCATION	L0002696	VOLUME	563850.491	4183279.373	4.61
LOCATION	L0002697	VOLUME	563850.714	4183279.260	4.61
LOCATION	L0002698	VOLUME	563850.937	4183279.146	4.61
LOCATION	L0002699	VOLUME	563851.160	4183279.033	4.60
LOCATION	L0002700	VOLUME	563851.383	4183278.920	4.60
LOCATION	L0002701	VOLUME	563851.606	4183278.807	4.58
LOCATION	L0002702	VOLUME	563851.829	4183278.694	4.58
LOCATION	L0002703	VOLUME	563852.052	4183278.581	4.57
LOCATION	L0002704	VOLUME	563852.275	4183278.468	4.57
LOCATION	L0002705	VOLUME	563852.498	4183278.355	4.55
LOCATION	L0002706	VOLUME	563852.721	4183278.242	4.55
LOCATION	L0002707	VOLUME	563852.944	4183278.129	4.55
LOCATION	L0002708	VOLUME	563853.167	4183278.016	4.52
LOCATION	L0002709	VOLUME	563853.390	4183277.903	4.52
LOCATION	L0002710	VOLUME	563853.613	4183277.790	4.50
LOCATION	L0002711	VOLUME	563853.836	4183277.677	4.50
LOCATION	L0002712	VOLUME	563854.059	4183277.564	4.47
LOCATION	L0002713	VOLUME	563854.282	4183277.451	4.47
LOCATION	L0002714	VOLUME	563854.505	4183277.338	4.44
LOCATION	L0002715	VOLUME	563854.728	4183277.225	4.44
LOCATION	L0002716	VOLUME	563854.951	4183277.112	4.41
LOCATION	L0002717	VOLUME	563855.174	4183276.999	4.41
LOCATION	L0002718	VOLUME	563855.397	4183276.886	4.40
LOCATION	L0002719	VOLUME	563855.620	4183276.773	4.37
LOCATION	L0002720	VOLUME	563855.843	4183276.660	4.37
LOCATION	L0002721	VOLUME	563856.066	4183276.547	4.04
LOCATION	L0002722	VOLUME	563856.289	4183276.434	4.03
LOCATION	L0002723	VOLUME	563856.512	4183276.320	3.98

LOCATION	L0002724	VOLUME	563856.735	4183276.207	3.97
LOCATION	L0002725	VOLUME	563856.958	4183276.094	3.92
LOCATION	L0002726	VOLUME	563857.181	4183275.981	3.90
LOCATION	L0002727	VOLUME	563857.404	4183275.868	3.85
LOCATION	L0002728	VOLUME	563857.627	4183275.755	3.83
LOCATION	L0002729	VOLUME	563857.850	4183275.642	3.81
LOCATION	L0002730	VOLUME	563858.073	4183275.529	3.76
LOCATION	L0002731	VOLUME	563858.296	4183275.416	3.74
LOCATION	L0002732	VOLUME	563858.519	4183275.303	3.68
LOCATION	L0002733	VOLUME	563858.741	4183275.190	3.66
LOCATION	L0002734	VOLUME	563858.964	4183275.077	3.61
LOCATION	L0002735	VOLUME	563859.187	4183274.964	3.58
LOCATION	L0002736	VOLUME	563859.410	4183274.851	3.52
LOCATION	L0002737	VOLUME	563859.633	4183274.738	3.50
LOCATION	L0002738	VOLUME	563859.856	4183274.625	3.44
LOCATION	L0002739	VOLUME	563860.079	4183274.512	3.42
LOCATION	L0002740	VOLUME	563860.302	4183274.399	3.39
LOCATION	L0002741	VOLUME	563860.525	4183274.286	3.34
LOCATION	L0002742	VOLUME	563860.748	4183274.173	3.31
LOCATION	L0002743	VOLUME	563860.971	4183274.060	3.25
LOCATION	L0002744	VOLUME	563861.194	4183273.947	3.23
LOCATION	L0002745	VOLUME	563861.417	4183273.834	3.16
LOCATION	L0002746	VOLUME	563861.640	4183273.721	3.14
LOCATION	L0002747	VOLUME	563861.863	4183273.608	3.08
LOCATION	L0002748	VOLUME	563862.086	4183273.494	3.06
LOCATION	L0002749	VOLUME	563862.309	4183273.381	3.03
LOCATION	L0002750	VOLUME	563862.532	4183273.268	2.97
LOCATION	L0002751	VOLUME	563862.755	4183273.155	2.94
LOCATION	L0002752	VOLUME	563862.978	4183273.042	2.88
LOCATION	L0002753	VOLUME	563863.201	4183272.929	2.86
LOCATION	L0002754	VOLUME	563863.424	4183272.816	2.80
LOCATION	L0002755	VOLUME	563863.647	4183272.703	2.78
LOCATION	L0002756	VOLUME	563863.870	4183272.590	2.71
LOCATION	L0002757	VOLUME	563864.093	4183272.477	2.69
LOCATION	L0002758	VOLUME	563864.316	4183272.364	2.63
LOCATION	L0002759	VOLUME	563864.539	4183272.251	2.60
LOCATION	L0002760	VOLUME	563864.762	4183272.138	2.58
LOCATION	L0002761	VOLUME	563864.985	4183272.025	2.52

LOCATION	L0002762	VOLUME	563865.208	4183271.912	2.50
LOCATION	L0002763	VOLUME	563865.431	4183271.799	1.73
LOCATION	L0002764	VOLUME	563865.654	4183271.686	1.72
LOCATION	L0002765	VOLUME	563865.877	4183271.573	1.70
LOCATION	L0002766	VOLUME	563866.100	4183271.460	1.69
LOCATION	L0002767	VOLUME	563866.323	4183271.347	1.68
LOCATION	L0002768	VOLUME	563866.546	4183271.234	1.66
LOCATION	L0002769	VOLUME	563866.769	4183271.121	1.65
LOCATION	L0002770	VOLUME	563866.992	4183271.008	1.63
LOCATION	L0002771	VOLUME	563867.215	4183270.895	1.62
LOCATION	L0002772	VOLUME	563867.438	4183270.781	1.60
LOCATION	L0002773	VOLUME	563867.661	4183270.668	1.58
LOCATION	L0002774	VOLUME	563867.884	4183270.555	1.57
LOCATION	L0002775	VOLUME	563868.107	4183270.442	1.55
LOCATION	L0002776	VOLUME	563868.330	4183270.329	1.53
LOCATION	L0002777	VOLUME	563868.553	4183270.216	1.52
LOCATION	L0002778	VOLUME	563868.776	4183270.103	1.50
LOCATION	L0002779	VOLUME	563868.999	4183269.990	1.48
LOCATION	L0002780	VOLUME	563869.222	4183269.877	1.47
LOCATION	L0002781	VOLUME	563869.445	4183269.764	1.44
LOCATION	L0002782	VOLUME	563869.668	4183269.651	1.43
LOCATION	L0002783	VOLUME	563869.891	4183269.538	1.40
LOCATION	L0002784	VOLUME	563870.114	4183269.425	1.39
LOCATION	L0002785	VOLUME	563870.337	4183269.312	1.36
LOCATION	L0002786	VOLUME	563870.560	4183269.199	1.35
LOCATION	L0002787	VOLUME	563870.783	4183269.086	1.32
LOCATION	L0002788	VOLUME	563871.006	4183268.973	1.30
LOCATION	L0002789	VOLUME	563871.229	4183268.860	1.27
LOCATION	L0002790	VOLUME	563871.452	4183268.747	1.26
LOCATION	L0002791	VOLUME	563871.675	4183268.634	1.24
LOCATION	L0002792	VOLUME	563871.898	4183268.521	1.21
LOCATION	L0002793	VOLUME	563872.121	4183268.408	1.20
LOCATION	L0002794	VOLUME	563872.344	4183268.295	1.17
LOCATION	L0002795	VOLUME	563872.566	4183268.182	1.15
LOCATION	L0002796	VOLUME	563872.789	4183268.069	1.12
LOCATION	L0002797	VOLUME	563873.012	4183267.955	1.10
LOCATION	L0002798	VOLUME	563873.235	4183267.842	1.07
LOCATION	L0002799	VOLUME	563873.458	4183267.729	1.05

LOCATION	L0002800	VOLUME	563873.681	4183267.616	1.02
LOCATION	L0002801	VOLUME	563873.904	4183267.503	1.01
LOCATION	L0002802	VOLUME	563874.127	4183267.390	0.99
LOCATION	L0002803	VOLUME	563874.350	4183267.277	0.95
LOCATION	L0002804	VOLUME	563874.573	4183267.164	0.94
LOCATION	L0002805	VOLUME	563874.796	4183267.051	0.90
LOCATION	L0002806	VOLUME	563875.019	4183266.938	0.89
LOCATION	L0002807	VOLUME	563875.242	4183266.825	0.85
LOCATION	L0002808	VOLUME	563875.465	4183266.712	0.84
LOCATION	L0002809	VOLUME	563875.688	4183266.599	0.80
LOCATION	L0002810	VOLUME	563875.911	4183266.486	0.79
LOCATION	L0002811	VOLUME	563876.134	4183266.373	0.76
LOCATION	L0002812	VOLUME	563876.357	4183266.260	0.74
LOCATION	L0002813	VOLUME	563876.580	4183266.147	0.73
LOCATION	L0002814	VOLUME	563876.803	4183266.034	0.70
LOCATION	L0002815	VOLUME	563877.026	4183265.921	0.69
LOCATION	L0002816	VOLUME	563877.249	4183265.808	0.65
LOCATION	L0002817	VOLUME	563877.472	4183265.695	0.64
LOCATION	L0002818	VOLUME	563877.695	4183265.582	0.61
LOCATION	L0002819	VOLUME	563877.918	4183265.469	0.60
LOCATION	L0002820	VOLUME	563878.141	4183265.356	0.57
LOCATION	L0002821	VOLUME	563878.364	4183265.243	0.56
LOCATION	L0002822	VOLUME	563878.587	4183265.129	0.56
LOCATION	L0002823	VOLUME	563878.810	4183265.016	0.52
LOCATION	L0002824	VOLUME	563879.033	4183264.903	0.52
LOCATION	L0002825	VOLUME	563879.256	4183264.790	0.49
LOCATION	L0002826	VOLUME	563879.479	4183264.677	0.48
LOCATION	L0002827	VOLUME	563879.702	4183264.564	0.46
LOCATION	L0002828	VOLUME	563879.925	4183264.451	0.45
LOCATION	L0002829	VOLUME	563880.148	4183264.338	-0.01
LOCATION	L0002830	VOLUME	563880.371	4183264.225	-0.01
LOCATION	L0002831	VOLUME	563880.594	4183264.112	-0.02
LOCATION	L0002832	VOLUME	563880.817	4183263.999	-0.02
LOCATION	L0002833	VOLUME	563881.040	4183263.886	-0.02
LOCATION	L0002834	VOLUME	563881.263	4183263.773	-0.02
LOCATION	L0002835	VOLUME	563881.486	4183263.660	-0.02
LOCATION	L0002836	VOLUME	563881.709	4183263.547	-0.02
LOCATION	L0002837	VOLUME	563881.932	4183263.434	-0.02

LOCATION	L0002838	VOLUME	563882.155	4183263.321	-0.02
LOCATION	L0002839	VOLUME	563882.378	4183263.208	-0.02
LOCATION	L0002840	VOLUME	563882.601	4183263.095	-0.03
LOCATION	L0002841	VOLUME	563882.824	4183262.982	-0.03
LOCATION	L0002842	VOLUME	563883.047	4183262.869	-0.03
LOCATION	L0002843	VOLUME	563883.270	4183262.756	-0.03
LOCATION	L0002844	VOLUME	563883.493	4183262.643	-0.03
LOCATION	L0002845	VOLUME	563883.716	4183262.530	-0.03
LOCATION	L0002846	VOLUME	563883.939	4183262.417	-0.04
LOCATION	L0002847	VOLUME	563884.162	4183262.303	-0.04
LOCATION	L0002848	VOLUME	563884.385	4183262.190	-0.04
LOCATION	L0002849	VOLUME	563884.608	4183262.077	-0.04
LOCATION	L0002850	VOLUME	563884.831	4183261.964	-0.05
LOCATION	L0002851	VOLUME	563885.054	4183261.851	-0.05
LOCATION	L0002852	VOLUME	563885.277	4183261.738	-0.05
LOCATION	L0002853	VOLUME	563885.500	4183261.625	-0.06
LOCATION	L0002854	VOLUME	563885.723	4183261.512	-0.06
LOCATION	L0002855	VOLUME	563885.946	4183261.399	-0.06
LOCATION	L0002856	VOLUME	563886.169	4183261.286	-0.07
LOCATION	L0002857	VOLUME	563886.391	4183261.173	-0.07
LOCATION	L0002858	VOLUME	563886.614	4183261.060	-0.08
LOCATION	L0002859	VOLUME	563886.837	4183260.947	-0.08
LOCATION	L0002860	VOLUME	563887.060	4183260.834	-0.09
LOCATION	L0002861	VOLUME	563887.283	4183260.721	-0.10
LOCATION	L0002862	VOLUME	563887.506	4183260.608	-0.10
LOCATION	L0002863	VOLUME	563887.729	4183260.495	-0.11
LOCATION	L0002864	VOLUME	563887.952	4183260.382	-0.12
LOCATION	L0002865	VOLUME	563888.175	4183260.269	-0.13
LOCATION	L0002866	VOLUME	563888.398	4183260.156	-0.13
LOCATION	L0002867	VOLUME	563888.621	4183260.043	-0.14
LOCATION	L0002868	VOLUME	563888.844	4183259.930	-0.15
LOCATION	L0002869	VOLUME	563889.067	4183259.817	-0.16
LOCATION	L0002870	VOLUME	563889.290	4183259.704	-0.17
LOCATION	L0002871	VOLUME	563889.513	4183259.590	-0.18
LOCATION	L0002872	VOLUME	563889.736	4183259.477	-0.20
LOCATION	L0002873	VOLUME	563889.959	4183259.364	-0.21
LOCATION	L0002874	VOLUME	563890.182	4183259.251	-0.22
LOCATION	L0002875	VOLUME	563890.405	4183259.138	-0.23

LOCATION	L0002876	VOLUME	563890.628	4183259.025	-0.24
LOCATION	L0002877	VOLUME	563890.851	4183258.912	-0.26
LOCATION	L0002878	VOLUME	563891.074	4183258.799	-0.27
LOCATION	L0002879	VOLUME	563891.297	4183258.686	-0.29
LOCATION	L0002880	VOLUME	563891.520	4183258.573	-0.30
LOCATION	L0002881	VOLUME	563891.743	4183258.460	-0.31
LOCATION	L0002882	VOLUME	563891.966	4183258.347	-0.33
LOCATION	L0002883	VOLUME	563892.189	4183258.234	-0.35
LOCATION	L0002884	VOLUME	563892.412	4183258.121	-0.36
LOCATION	L0002885	VOLUME	563892.635	4183258.008	-0.38
LOCATION	L0002886	VOLUME	563892.858	4183257.895	-0.39
LOCATION	L0002887	VOLUME	563893.081	4183257.782	-0.41
LOCATION	L0002888	VOLUME	563893.304	4183257.669	-0.43
LOCATION	L0002889	VOLUME	563893.527	4183257.556	-0.44
LOCATION	L0002890	VOLUME	563893.750	4183257.443	-0.46
LOCATION	L0002891	VOLUME	563893.973	4183257.330	-0.48
LOCATION	L0002892	VOLUME	563894.196	4183257.217	-0.50
LOCATION	L0002893	VOLUME	563894.419	4183257.104	-0.52
LOCATION	L0002894	VOLUME	563894.642	4183256.991	-0.53
LOCATION	L0002895	VOLUME	563894.865	4183256.878	-0.55
LOCATION	L0002896	VOLUME	563895.088	4183256.764	-0.56
LOCATION	L0002897	VOLUME	563895.311	4183256.651	-0.58
LOCATION	L0002898	VOLUME	563895.534	4183256.538	-0.60
LOCATION	L0002899	VOLUME	563895.757	4183256.425	-0.62
LOCATION	L0002900	VOLUME	563895.980	4183256.312	-0.64
LOCATION	L0002901	VOLUME	563896.203	4183256.199	-0.65
LOCATION	L0002902	VOLUME	563896.426	4183256.086	-0.67
LOCATION	L0002903	VOLUME	563896.649	4183255.973	-0.68
LOCATION	L0002904	VOLUME	563896.872	4183255.860	-0.70
LOCATION	L0002905	VOLUME	563897.095	4183255.747	-0.72
LOCATION	L0002906	VOLUME	563897.318	4183255.634	-0.73
LOCATION	L0002907	VOLUME	563897.541	4183255.521	-0.74
LOCATION	L0002908	VOLUME	563897.764	4183255.408	-0.76
LOCATION	L0002909	VOLUME	563897.987	4183255.295	-0.77
LOCATION	L0002910	VOLUME	563898.210	4183255.182	-0.78
LOCATION	L0002911	VOLUME	563898.433	4183255.069	-0.79
LOCATION	L0002912	VOLUME	563898.656	4183254.956	-0.80
LOCATION	L0002913	VOLUME	563898.879	4183254.843	-0.81

LOCATION	L0002914	VOLUME	563899.102	4183254.730	-0.83
LOCATION	L0002915	VOLUME	563899.325	4183254.617	-0.83
LOCATION	L0002916	VOLUME	563899.548	4183254.504	-0.85
LOCATION	L0002917	VOLUME	563899.771	4183254.391	-0.85
LOCATION	L0002918	VOLUME	563899.994	4183254.278	-0.86
LOCATION	L0002919	VOLUME	563900.217	4183254.165	-0.87
LOCATION	L0002920	VOLUME	563900.439	4183254.052	-0.87
LOCATION	L0002921	VOLUME	563900.662	4183253.938	-0.88
LOCATION	L0002922	VOLUME	563900.885	4183253.825	-0.88
LOCATION	L0002923	VOLUME	563901.108	4183253.712	-0.89
LOCATION	L0002924	VOLUME	563901.331	4183253.599	-0.89
LOCATION	L0002925	VOLUME	563901.554	4183253.486	-0.90
LOCATION	L0002926	VOLUME	563901.777	4183253.373	-0.89
LOCATION	L0002927	VOLUME	563902.000	4183253.260	-0.90
LOCATION	L0002928	VOLUME	563902.223	4183253.147	-0.90
LOCATION	L0002929	VOLUME	563902.446	4183253.034	-0.90
LOCATION	L0002930	VOLUME	563902.669	4183252.921	-0.90
LOCATION	L0002931	VOLUME	563902.892	4183252.808	-0.89
LOCATION	L0002932	VOLUME	563903.115	4183252.695	-0.90
LOCATION	L0002933	VOLUME	563903.338	4183252.582	-0.89
LOCATION	L0002934	VOLUME	563903.561	4183252.469	-0.89
LOCATION	L0002935	VOLUME	563903.784	4183252.356	-0.88
LOCATION	L0002936	VOLUME	563904.007	4183252.243	-0.85
LOCATION	L0002937	VOLUME	563904.230	4183252.130	-0.85
LOCATION	L0002938	VOLUME	563904.453	4183252.017	-0.83
LOCATION	L0002939	VOLUME	563904.676	4183251.904	-0.83
LOCATION	L0002940	VOLUME	563904.899	4183251.791	-0.81
LOCATION	L0002941	VOLUME	563905.122	4183251.678	-0.81
LOCATION	L0002942	VOLUME	563905.345	4183251.565	-0.78
LOCATION	L0002943	VOLUME	563905.568	4183251.452	-0.78
LOCATION	L0002944	VOLUME	563905.791	4183251.339	-0.75
LOCATION	L0002945	VOLUME	563906.014	4183251.225	-0.74
LOCATION	L0002946	VOLUME	563906.237	4183251.112	-0.71
LOCATION	L0002947	VOLUME	563906.460	4183250.999	-0.71
LOCATION	L0002948	VOLUME	563906.683	4183250.886	-0.70
LOCATION	L0002949	VOLUME	563906.906	4183250.773	-0.67
LOCATION	L0002950	VOLUME	563907.129	4183250.660	-0.65
LOCATION	L0002951	VOLUME	563907.352	4183250.547	-0.62

LOCATION	L0002952	VOLUME	563907.575	4183250.434	-0.61
LOCATION	L0002953	VOLUME	563907.798	4183250.321	-0.57
LOCATION	L0002954	VOLUME	563908.021	4183250.208	-0.56
LOCATION	L0002955	VOLUME	563908.244	4183250.095	-0.53
LOCATION	L0002956	VOLUME	563908.467	4183249.982	-0.51
LOCATION	L0002957	VOLUME	563908.690	4183249.869	-0.47
LOCATION	L0002958	VOLUME	563908.913	4183249.756	-0.46
LOCATION	L0002959	VOLUME	563909.136	4183249.643	-0.44
LOCATION	L0002960	VOLUME	563909.359	4183249.530	-0.40
LOCATION	L0002961	VOLUME	563909.582	4183249.417	-0.39
LOCATION	L0002962	VOLUME	563909.805	4183249.304	-0.35
LOCATION	L0002963	VOLUME	563910.028	4183249.191	-0.33
LOCATION	L0002964	VOLUME	563910.251	4183249.078	-0.29
LOCATION	L0002965	VOLUME	563910.474	4183248.965	-0.27
LOCATION	L0002966	VOLUME	563910.697	4183248.852	-0.24
LOCATION	L0002967	VOLUME	563910.920	4183248.739	-0.21
LOCATION	L0002968	VOLUME	563911.143	4183248.626	-0.20
LOCATION	L0002969	VOLUME	563911.366	4183248.513	-0.16
LOCATION	L0002970	VOLUME	563911.589	4183248.399	-0.14
LOCATION	L0002971	VOLUME	563911.812	4183248.286	-0.10
LOCATION	L0002972	VOLUME	563912.035	4183248.173	-0.08
LOCATION	L0002973	VOLUME	563912.258	4183248.060	-0.05
LOCATION	L0002974	VOLUME	563912.481	4183247.947	-0.02
LOCATION	L0002975	VOLUME	563912.704	4183247.834	-0.23
LOCATION	L0002976	VOLUME	563912.927	4183247.721	-0.22
LOCATION	L0002977	VOLUME	563913.150	4183247.608	-0.19
LOCATION	L0002978	VOLUME	563913.373	4183247.495	-0.17
LOCATION	L0002979	VOLUME	563913.596	4183247.382	-0.16
LOCATION	L0002980	VOLUME	563913.819	4183247.269	-0.12
LOCATION	L0002981	VOLUME	563914.042	4183247.156	-0.11
LOCATION	L0002982	VOLUME	563914.264	4183247.043	-0.08
LOCATION	L0002983	VOLUME	563914.487	4183246.930	-0.06
LOCATION	L0002984	VOLUME	563914.710	4183246.817	-0.03
LOCATION	L0002985	VOLUME	563914.933	4183246.704	-0.02
LOCATION	L0002986	VOLUME	563915.156	4183246.591	0.02
LOCATION	L0002987	VOLUME	563915.379	4183246.478	0.03
LOCATION	L0002988	VOLUME	563915.602	4183246.365	0.06
LOCATION	L0002989	VOLUME	563915.825	4183246.252	0.07

LOCATION	L0002990	VOLUME	563916.048	4183246.139	0.09
LOCATION	L0002991	VOLUME	563916.271	4183246.026	0.12
LOCATION	L0002992	VOLUME	563916.494	4183245.913	0.13
LOCATION	L0002993	VOLUME	563916.717	4183245.800	0.16
LOCATION	L0002994	VOLUME	563916.940	4183245.687	0.17
LOCATION	L0002995	VOLUME	563917.163	4183245.573	0.20
LOCATION	L0002996	VOLUME	563917.386	4183245.460	0.21
LOCATION	L0002997	VOLUME	563917.609	4183245.347	0.24
LOCATION	L0002998	VOLUME	563917.832	4183245.234	0.25
LOCATION	L0002999	VOLUME	563918.055	4183245.121	0.28
LOCATION	L0003000	VOLUME	563918.278	4183245.008	0.29
LOCATION	L0003001	VOLUME	563918.501	4183244.895	0.31
LOCATION	L0003002	VOLUME	563918.724	4183244.782	0.33
LOCATION	L0003003	VOLUME	563918.947	4183244.669	0.34
LOCATION	L0003004	VOLUME	563919.170	4183244.556	0.37
LOCATION	L0003005	VOLUME	563919.393	4183244.443	0.38
LOCATION	L0003006	VOLUME	563919.616	4183244.330	0.41
LOCATION	L0003007	VOLUME	563919.839	4183244.217	0.42
LOCATION	L0003008	VOLUME	563920.062	4183244.104	0.44
LOCATION	L0003009	VOLUME	563920.285	4183243.991	0.45
LOCATION	L0003010	VOLUME	563920.508	4183243.878	0.46
LOCATION	L0003011	VOLUME	563920.731	4183243.765	0.49
LOCATION	L0003012	VOLUME	563920.954	4183243.652	0.49
LOCATION	L0003013	VOLUME	563921.177	4183243.539	0.52
LOCATION	L0003014	VOLUME	563921.400	4183243.426	0.53
LOCATION	L0003015	VOLUME	563921.623	4183243.313	0.55
LOCATION	L0003016	VOLUME	563921.846	4183243.200	0.56
LOCATION	L0003017	VOLUME	563922.069	4183243.087	0.58
LOCATION	L0003018	VOLUME	563922.292	4183242.974	0.59
LOCATION	L0003019	VOLUME	563922.515	4183242.860	0.61
LOCATION	L0003020	VOLUME	563922.738	4183242.747	0.62
LOCATION	L0003021	VOLUME	563922.961	4183242.634	0.62
LOCATION	L0003022	VOLUME	563923.184	4183242.521	0.64
LOCATION	L0003023	VOLUME	563923.407	4183242.408	0.65
LOCATION	L0003024	VOLUME	563923.630	4183242.295	0.67
LOCATION	L0003025	VOLUME	563923.853	4183242.182	0.68
LOCATION	L0003026	VOLUME	563924.076	4183242.069	0.69
LOCATION	L0003027	VOLUME	563924.299	4183241.956	0.70

LOCATION	L0003028	VOLUME	563924.522	4183241.843	0.72
LOCATION	L0003029	VOLUME	563924.745	4183241.730	0.73
LOCATION	L0003030	VOLUME	563924.968	4183241.617	0.74
LOCATION	L0003031	VOLUME	563925.191	4183241.504	0.75
LOCATION	L0003032	VOLUME	563925.414	4183241.391	0.76
LOCATION	L0003033	VOLUME	563925.637	4183241.278	0.77
LOCATION	L0003034	VOLUME	563925.860	4183241.165	0.78
LOCATION	L0003035	VOLUME	563926.083	4183241.052	0.79
LOCATION	L0003036	VOLUME	563926.306	4183240.939	0.80
LOCATION	L0003037	VOLUME	563926.529	4183240.826	0.81
LOCATION	L0003038	VOLUME	563926.752	4183240.713	0.82
LOCATION	L0003039	VOLUME	563926.975	4183240.600	0.83
LOCATION	L0003040	VOLUME	563927.198	4183240.487	0.84
LOCATION	L0003041	VOLUME	563927.421	4183240.374	0.85
LOCATION	L0003042	VOLUME	563927.644	4183240.261	0.85
LOCATION	L0003043	VOLUME	563927.867	4183240.148	0.86
LOCATION	L0003044	VOLUME	563928.089	4183240.034	1.11
LOCATION	L0003045	VOLUME	563928.312	4183239.921	1.11
LOCATION	L0003046	VOLUME	563928.535	4183239.808	1.11
LOCATION	L0003047	VOLUME	563928.758	4183239.695	1.11
LOCATION	L0003048	VOLUME	563928.981	4183239.582	1.11
LOCATION	L0003049	VOLUME	563929.204	4183239.469	1.12
LOCATION	L0003050	VOLUME	563929.427	4183239.356	1.12
LOCATION	L0003051	VOLUME	563929.650	4183239.243	1.12
LOCATION	L0003052	VOLUME	563929.873	4183239.130	1.12
LOCATION	L0003053	VOLUME	563930.096	4183239.017	1.12
LOCATION	L0003054	VOLUME	563930.319	4183238.904	1.13
LOCATION	L0003055	VOLUME	563930.542	4183238.791	1.13
LOCATION	L0003056	VOLUME	563930.765	4183238.678	1.13
LOCATION	L0003057	VOLUME	563930.988	4183238.565	1.13
LOCATION	L0003058	VOLUME	563931.211	4183238.452	1.13
LOCATION	L0003059	VOLUME	563931.434	4183238.339	1.14
LOCATION	L0003060	VOLUME	563931.657	4183238.226	1.14
LOCATION	L0003061	VOLUME	563931.880	4183238.113	1.14
LOCATION	L0003062	VOLUME	563932.103	4183238.000	1.14
LOCATION	L0003063	VOLUME	563932.326	4183237.887	1.15
LOCATION	L0003064	VOLUME	563932.549	4183237.774	1.15
LOCATION	L0003065	VOLUME	563932.772	4183237.661	1.15

LOCATION	L0003066	VOLUME	563932.995	4183237.548	1.15
LOCATION	L0003067	VOLUME	563933.218	4183237.435	1.16
LOCATION	L0003068	VOLUME	563933.441	4183237.322	1.16
LOCATION	L0003069	VOLUME	563933.664	4183237.208	1.16
LOCATION	L0003070	VOLUME	563933.887	4183237.095	1.17
LOCATION	L0003071	VOLUME	563934.110	4183236.982	1.17
LOCATION	L0003072	VOLUME	563934.333	4183236.869	1.17
LOCATION	L0003073	VOLUME	563934.556	4183236.756	1.18
LOCATION	L0003074	VOLUME	563934.779	4183236.643	1.18
LOCATION	L0003075	VOLUME	563935.002	4183236.530	1.19
LOCATION	L0003076	VOLUME	563935.225	4183236.417	1.19
LOCATION	L0003077	VOLUME	563935.448	4183236.304	1.20
LOCATION	L0003078	VOLUME	563935.671	4183236.191	1.20
LOCATION	L0003079	VOLUME	563935.894	4183236.078	1.21
LOCATION	L0003080	VOLUME	563936.117	4183235.965	1.21
LOCATION	L0003081	VOLUME	563936.340	4183235.852	1.22
LOCATION	L0003082	VOLUME	563936.563	4183235.739	1.23
LOCATION	L0003083	VOLUME	563936.786	4183235.626	1.23
LOCATION	L0003084	VOLUME	563937.009	4183235.513	1.24
LOCATION	L0003085	VOLUME	563937.232	4183235.400	1.25
LOCATION	L0003086	VOLUME	563937.455	4183235.287	1.25
LOCATION	L0003087	VOLUME	563937.678	4183235.174	1.26
LOCATION	L0003088	VOLUME	563937.901	4183235.061	1.27
LOCATION	L0003089	VOLUME	563938.124	4183234.948	1.28
LOCATION	L0003090	VOLUME	563938.347	4183234.835	1.29
LOCATION	L0003091	VOLUME	563938.570	4183234.722	1.30
LOCATION	L0003092	VOLUME	563938.793	4183234.609	1.31
LOCATION	L0003093	VOLUME	563939.016	4183234.496	1.31
LOCATION	L0003094	VOLUME	563939.239	4183234.382	1.32
LOCATION	L0003095	VOLUME	563939.462	4183234.269	1.33
LOCATION	L0003096	VOLUME	563939.685	4183234.156	1.34
LOCATION	L0003097	VOLUME	563939.908	4183234.043	1.36
LOCATION	L0003098	VOLUME	563940.131	4183233.930	1.37
LOCATION	L0003099	VOLUME	563940.354	4183233.817	1.38
LOCATION	L0003100	VOLUME	563940.577	4183233.704	1.39
LOCATION	L0003101	VOLUME	563940.800	4183233.591	1.40
LOCATION	L0003102	VOLUME	563941.023	4183233.478	1.41
LOCATION	L0003103	VOLUME	563941.246	4183233.365	1.43

LOCATION	L0003104	VOLUME	563941.469	4183233.252	1.44
LOCATION	L0003105	VOLUME	563941.692	4183233.139	1.45
LOCATION	L0003106	VOLUME	563941.915	4183233.026	1.47
LOCATION	L0003107	VOLUME	563942.137	4183232.913	1.48
LOCATION	L0003108	VOLUME	563942.360	4183232.800	1.50
LOCATION	L0003109	VOLUME	563942.583	4183232.687	1.51
LOCATION	L0003110	VOLUME	563942.806	4183232.574	1.53
LOCATION	L0003111	VOLUME	563943.029	4183232.461	1.54
LOCATION	L0003112	VOLUME	563943.252	4183232.348	1.56
LOCATION	L0003113	VOLUME	563943.475	4183232.235	1.57
LOCATION	L0003114	VOLUME	563943.698	4183232.122	1.59
LOCATION	L0003115	VOLUME	563943.921	4183232.009	1.60
LOCATION	L0003116	VOLUME	563944.144	4183231.896	1.61
LOCATION	L0003117	VOLUME	563944.367	4183231.783	1.63
LOCATION	L0003118	VOLUME	563944.590	4183231.669	1.64
LOCATION	L0003119	VOLUME	563944.813	4183231.556	1.66
LOCATION	L0003120	VOLUME	563945.036	4183231.443	1.68
LOCATION	L0003121	VOLUME	563945.259	4183231.330	1.69
LOCATION	L0003122	VOLUME	563945.482	4183231.217	1.71
LOCATION	L0003123	VOLUME	563945.705	4183231.104	1.72
LOCATION	L0003124	VOLUME	563945.928	4183230.991	1.74
LOCATION	L0003125	VOLUME	563946.151	4183230.878	1.75
LOCATION	L0003126	VOLUME	563946.374	4183230.765	1.76
LOCATION	L0003127	VOLUME	563946.597	4183230.652	1.78
LOCATION	L0003128	VOLUME	563946.820	4183230.539	1.79
LOCATION	L0003129	VOLUME	563947.043	4183230.426	1.80
LOCATION	L0003130	VOLUME	563947.266	4183230.313	1.82
LOCATION	L0003131	VOLUME	563947.489	4183230.200	1.83
LOCATION	L0003132	VOLUME	563947.712	4183230.087	1.84
LOCATION	L0003133	VOLUME	563947.935	4183229.974	1.85
LOCATION	L0003134	VOLUME	563948.158	4183229.861	1.87
LOCATION	L0003135	VOLUME	563948.381	4183229.748	1.88
LOCATION	L0003136	VOLUME	563948.604	4183229.635	1.89
LOCATION	L0003137	VOLUME	563948.827	4183229.522	1.90
LOCATION	L0003138	VOLUME	563949.050	4183229.409	1.91
LOCATION	L0003139	VOLUME	563949.273	4183229.296	1.92
LOCATION	L0003140	VOLUME	563949.496	4183229.183	1.92
LOCATION	L0003141	VOLUME	563949.719	4183229.070	1.93

LOCATION	L0003142	VOLUME	563949.942	4183228.957	1.94
LOCATION	L0003143	VOLUME	563950.165	4183228.843	1.95
LOCATION	L0003144	VOLUME	563950.388	4183228.730	1.95
LOCATION	L0003145	VOLUME	563950.611	4183228.617	1.96
LOCATION	L0003146	VOLUME	563950.834	4183228.504	1.97
LOCATION	L0003147	VOLUME	563951.057	4183228.391	1.97
LOCATION	L0003148	VOLUME	563951.280	4183228.278	1.98
LOCATION	L0003149	VOLUME	563951.503	4183228.165	1.98
LOCATION	L0003150	VOLUME	563951.726	4183228.052	1.98
LOCATION	L0003151	VOLUME	563951.949	4183227.939	1.99
LOCATION	L0003152	VOLUME	563952.172	4183227.826	1.99
LOCATION	L0003153	VOLUME	563952.395	4183227.713	1.99
LOCATION	L0003154	VOLUME	563952.618	4183227.600	2.00
LOCATION	L0003155	VOLUME	563952.841	4183227.487	2.00
LOCATION	L0003156	VOLUME	563953.064	4183227.374	2.00
LOCATION	L0003157	VOLUME	563953.287	4183227.261	2.00
LOCATION	L0003158	VOLUME	563953.510	4183227.148	2.00
LOCATION	L0003159	VOLUME	563953.733	4183227.035	2.00
LOCATION	L0003160	VOLUME	563953.956	4183226.922	2.00
LOCATION	L0003161	VOLUME	563954.179	4183226.809	2.00
LOCATION	L0003162	VOLUME	563954.402	4183226.696	2.00
LOCATION	L0003163	VOLUME	563954.625	4183226.583	2.00
LOCATION	L0003164	VOLUME	563954.848	4183226.470	1.99
LOCATION	L0003165	VOLUME	563955.071	4183226.357	1.99
LOCATION	L0003166	VOLUME	563955.294	4183226.244	1.99
LOCATION	L0003167	VOLUME	563955.517	4183226.131	1.99
LOCATION	L0003168	VOLUME	563955.740	4183226.017	1.99
LOCATION	L0003169	VOLUME	563955.962	4183225.904	1.98
LOCATION	L0003170	VOLUME	563956.185	4183225.791	1.98
LOCATION	L0003171	VOLUME	563956.408	4183225.678	1.98
LOCATION	L0003172	VOLUME	563956.631	4183225.565	1.97
LOCATION	L0003173	VOLUME	563956.854	4183225.452	1.97
LOCATION	L0003174	VOLUME	563957.077	4183225.339	1.96
LOCATION	L0003175	VOLUME	563957.300	4183225.226	1.96
LOCATION	L0003176	VOLUME	563957.523	4183225.113	1.95
LOCATION	L0003177	VOLUME	563957.746	4183225.000	1.95
LOCATION	L0003178	VOLUME	563957.969	4183224.887	1.94
LOCATION	L0003179	VOLUME	563958.192	4183224.774	1.93

LOCATION	L0003180	VOLUME	563958.415	4183224.661	1.93
LOCATION	L0003181	VOLUME	563958.638	4183224.548	1.92
LOCATION	L0003182	VOLUME	563958.861	4183224.435	1.91
LOCATION	L0003183	VOLUME	563959.084	4183224.322	1.90
LOCATION	L0003184	VOLUME	563959.307	4183224.209	1.90
LOCATION	L0003185	VOLUME	563959.530	4183224.096	1.89
LOCATION	L0003186	VOLUME	563959.753	4183223.983	1.88
LOCATION	L0003187	VOLUME	563959.976	4183223.870	2.08
LOCATION	L0003188	VOLUME	563960.199	4183223.757	2.09
LOCATION	L0003189	VOLUME	563960.422	4183223.644	2.09
LOCATION	L0003190	VOLUME	563960.645	4183223.531	2.10
LOCATION	L0003191	VOLUME	563960.868	4183223.418	2.10
LOCATION	L0003192	VOLUME	563961.091	4183223.304	2.11
LOCATION	L0003193	VOLUME	563961.314	4183223.191	2.11
LOCATION	L0003194	VOLUME	563961.537	4183223.078	2.12
LOCATION	L0003195	VOLUME	563961.760	4183222.965	2.12
LOCATION	L0003196	VOLUME	563961.983	4183222.852	2.13
LOCATION	L0003197	VOLUME	563962.206	4183222.739	2.13
LOCATION	L0003198	VOLUME	563962.429	4183222.626	2.14
LOCATION	L0003199	VOLUME	563962.652	4183222.513	2.14
LOCATION	L0003200	VOLUME	563962.875	4183222.400	2.15
LOCATION	L0003201	VOLUME	563963.098	4183222.287	2.15
LOCATION	L0003202	VOLUME	563963.321	4183222.174	2.16
LOCATION	L0003203	VOLUME	563963.544	4183222.061	2.16
LOCATION	L0003204	VOLUME	563963.767	4183221.948	2.17
LOCATION	L0003205	VOLUME	563963.990	4183221.835	2.18
LOCATION	L0003206	VOLUME	563964.213	4183221.722	2.18
LOCATION	L0003207	VOLUME	563964.436	4183221.609	2.19
LOCATION	L0003208	VOLUME	563964.659	4183221.496	2.19
LOCATION	L0003209	VOLUME	563964.882	4183221.383	2.19
LOCATION	L0003210	VOLUME	563965.105	4183221.270	2.20
LOCATION	L0003211	VOLUME	563965.328	4183221.157	2.20
LOCATION	L0003212	VOLUME	563965.551	4183221.044	2.21
LOCATION	L0003213	VOLUME	563965.774	4183220.931	2.21
LOCATION	L0003214	VOLUME	563965.997	4183220.818	2.22
LOCATION	L0003215	VOLUME	563966.220	4183220.705	2.22
LOCATION	L0003216	VOLUME	563966.443	4183220.592	2.23
LOCATION	L0003217	VOLUME	563966.666	4183220.478	2.23

LOCATION	L0003218	VOLUME	563966.889	4183220.365	2.24
LOCATION	L0003219	VOLUME	563967.112	4183220.252	2.24
LOCATION	L0003220	VOLUME	563967.335	4183220.139	2.24
LOCATION	L0003221	VOLUME	563967.558	4183220.026	2.25
LOCATION	L0003222	VOLUME	563967.781	4183219.913	2.25
LOCATION	L0003223	VOLUME	563968.004	4183219.800	2.26
LOCATION	L0003224	VOLUME	563968.227	4183219.687	2.26
LOCATION	L0003225	VOLUME	563968.450	4183219.574	2.27
LOCATION	L0003226	VOLUME	563968.673	4183219.461	2.27
LOCATION	L0003227	VOLUME	563968.896	4183219.348	2.28
LOCATION	L0003228	VOLUME	563969.119	4183219.235	2.28
LOCATION	L0003229	VOLUME	563969.342	4183219.122	2.28
LOCATION	L0003230	VOLUME	563969.565	4183219.009	2.29
LOCATION	L0003231	VOLUME	563969.788	4183218.896	2.29
LOCATION	L0003232	VOLUME	563970.010	4183218.783	2.29
LOCATION	L0003233	VOLUME	563970.233	4183218.670	2.30
LOCATION	L0003234	VOLUME	563970.456	4183218.557	2.30
LOCATION	L0003235	VOLUME	563970.679	4183218.444	2.30
LOCATION	L0003236	VOLUME	563970.902	4183218.331	2.31
LOCATION	L0003237	VOLUME	563971.125	4183218.218	2.31
LOCATION	L0003238	VOLUME	563971.348	4183218.105	2.31
LOCATION	L0003239	VOLUME	563971.571	4183217.992	2.31
LOCATION	L0003240	VOLUME	563971.794	4183217.879	2.32
LOCATION	L0003241	VOLUME	563972.017	4183217.766	2.32
LOCATION	L0003242	VOLUME	563972.240	4183217.652	2.32
LOCATION	L0003243	VOLUME	563972.463	4183217.539	2.32
LOCATION	L0003244	VOLUME	563972.686	4183217.426	2.33
LOCATION	L0003245	VOLUME	563972.909	4183217.313	2.33
LOCATION	L0003246	VOLUME	563973.132	4183217.200	2.33
LOCATION	L0003247	VOLUME	563973.355	4183217.087	2.33
LOCATION	L0003248	VOLUME	563973.578	4183216.974	2.33
LOCATION	L0003249	VOLUME	563973.801	4183216.861	2.34
LOCATION	L0003250	VOLUME	563974.024	4183216.748	2.34
LOCATION	L0003251	VOLUME	563974.247	4183216.635	2.34
LOCATION	L0003252	VOLUME	563974.470	4183216.522	2.34
LOCATION	L0003253	VOLUME	563974.693	4183216.409	2.34
LOCATION	L0003254	VOLUME	563974.916	4183216.296	2.35
LOCATION	L0003255	VOLUME	563975.139	4183216.183	2.35

LOCATION	L0003256	VOLUME	563975.362	4183216.070	2.35
LOCATION	L0003257	VOLUME	563975.585	4183215.957	2.35
LOCATION	L0003258	VOLUME	563975.808	4183215.844	2.35
LOCATION	L0003259	VOLUME	563976.031	4183215.731	1.33
LOCATION	L0003260	VOLUME	563976.254	4183215.618	1.35
LOCATION	L0003261	VOLUME	563976.477	4183215.505	1.35
LOCATION	L0003262	VOLUME	563976.700	4183215.392	1.35
LOCATION	L0003263	VOLUME	563976.923	4183215.279	1.36
LOCATION	L0003264	VOLUME	563977.146	4183215.166	1.36
LOCATION	L0003265	VOLUME	563977.369	4183215.053	1.37
LOCATION	L0003266	VOLUME	563977.592	4183214.939	1.37
LOCATION	L0003267	VOLUME	563977.815	4183214.826	1.39
LOCATION	L0003268	VOLUME	563978.038	4183214.713	1.39
LOCATION	L0003269	VOLUME	563978.261	4183214.600	1.40
LOCATION	L0003270	VOLUME	563978.484	4183214.487	1.40
LOCATION	L0003271	VOLUME	563978.707	4183214.374	1.42
LOCATION	L0003272	VOLUME	563978.930	4183214.261	1.42
LOCATION	L0003273	VOLUME	563979.153	4183214.148	1.42
LOCATION	L0003274	VOLUME	563979.376	4183214.035	1.43
LOCATION	L0003275	VOLUME	563979.599	4183213.922	1.43
LOCATION	L0003276	VOLUME	563979.822	4183213.809	1.45
LOCATION	L0003277	VOLUME	563980.045	4183213.696	1.45
LOCATION	L0003278	VOLUME	563980.268	4183213.583	1.47
LOCATION	L0003279	VOLUME	563980.491	4183213.470	1.47
LOCATION	L0003280	VOLUME	563980.714	4183213.357	1.48
LOCATION	L0003281	VOLUME	563980.937	4183213.244	1.48
LOCATION	L0003282	VOLUME	563981.160	4183213.131	1.48
LOCATION	L0003283	VOLUME	563981.383	4183213.018	1.50
LOCATION	L0003284	VOLUME	563981.606	4183212.905	1.50
LOCATION	L0003285	VOLUME	563981.829	4183212.792	1.52
LOCATION	L0003286	VOLUME	563982.052	4183212.679	1.52
LOCATION	L0003287	VOLUME	563982.275	4183212.566	1.53
LOCATION	L0003288	VOLUME	563982.498	4183212.453	1.53
LOCATION	L0003289	VOLUME	563982.721	4183212.340	1.55
LOCATION	L0003290	VOLUME	563982.944	4183212.227	1.55
LOCATION	L0003291	VOLUME	563983.167	4183212.113	1.56
LOCATION	L0003292	VOLUME	563983.390	4183212.000	1.56
LOCATION	L0003293	VOLUME	563983.613	4183211.887	1.57

LOCATION	L0003294	VOLUME	563983.835	4183211.774	1.58
LOCATION	L0003295	VOLUME	563984.058	4183211.661	1.58
LOCATION	L0003296	VOLUME	563984.281	4183211.548	1.59
LOCATION	L0003297	VOLUME	563984.504	4183211.435	1.60
LOCATION	L0003298	VOLUME	563984.727	4183211.322	1.61
LOCATION	L0003299	VOLUME	563984.950	4183211.209	1.61
LOCATION	L0003300	VOLUME	563985.173	4183211.096	1.62
LOCATION	L0003301	VOLUME	563985.396	4183210.983	1.62
LOCATION	L0003302	VOLUME	563985.619	4183210.870	1.63
LOCATION	L0003303	VOLUME	563985.842	4183210.757	1.64
LOCATION	L0003304	VOLUME	563986.065	4183210.644	1.64
LOCATION	L0003305	VOLUME	563986.288	4183210.531	1.65
LOCATION	L0003306	VOLUME	563986.511	4183210.418	1.65
LOCATION	L0003307	VOLUME	563986.734	4183210.305	1.66
LOCATION	L0003308	VOLUME	563986.957	4183210.192	1.66
LOCATION	L0003309	VOLUME	563987.180	4183210.079	1.67
LOCATION	L0003310	VOLUME	563987.403	4183209.966	1.67
LOCATION	L0003311	VOLUME	563987.626	4183209.853	1.68
LOCATION	L0003312	VOLUME	563987.849	4183209.740	1.68
LOCATION	L0003313	VOLUME	563988.072	4183209.627	1.68
LOCATION	L0003314	VOLUME	563988.295	4183209.514	1.69
LOCATION	L0003315	VOLUME	563988.518	4183209.401	1.69
LOCATION	L0003316	VOLUME	563988.741	4183209.287	1.70
LOCATION	L0003317	VOLUME	563988.964	4183209.174	1.70
LOCATION	L0003318	VOLUME	563989.187	4183209.061	1.71
LOCATION	L0003319	VOLUME	563989.410	4183208.948	1.71
LOCATION	L0003320	VOLUME	563989.633	4183208.835	1.72
LOCATION	L0003321	VOLUME	563989.856	4183208.722	1.72
LOCATION	L0003322	VOLUME	563990.079	4183208.609	1.72
LOCATION	L0003323	VOLUME	563990.302	4183208.496	1.72
LOCATION	L0003324	VOLUME	563990.525	4183208.383	1.72
LOCATION	L0003325	VOLUME	563990.748	4183208.270	1.73
LOCATION	L0003326	VOLUME	563990.971	4183208.157	1.73
LOCATION	L0003327	VOLUME	563991.194	4183208.044	1.74
LOCATION	L0003328	VOLUME	563991.417	4183207.931	1.74
LOCATION	L0003329	VOLUME	563991.640	4183207.818	1.74
LOCATION	L0003330	VOLUME	563991.863	4183207.705	1.74
LOCATION	L0003331	VOLUME	563992.086	4183207.592	1.75

LOCATION	L0003332	VOLUME	563992.309	4183207.479	1.75
LOCATION	L0003333	VOLUME	563992.532	4183207.366	1.76
LOCATION	L0003334	VOLUME	563992.755	4183207.253	1.76
LOCATION	L0003335	VOLUME	563992.978	4183207.140	1.76
LOCATION	L0003336	VOLUME	563993.201	4183207.027	1.76
LOCATION	L0003337	VOLUME	563993.424	4183206.914	1.76
LOCATION	L0003338	VOLUME	563993.647	4183206.801	1.77
LOCATION	L0003339	VOLUME	563993.870	4183206.688	1.77
LOCATION	L0003340	VOLUME	563994.093	4183206.575	1.77
LOCATION	L0003341	VOLUME	563994.316	4183206.461	1.77
LOCATION	L0003342	VOLUME	563994.539	4183206.348	1.77
LOCATION	L0003343	VOLUME	563994.762	4183206.235	1.77
LOCATION	L0003344	VOLUME	563994.985	4183206.122	1.78
LOCATION	L0003345	VOLUME	563995.208	4183206.009	1.78
LOCATION	L0003346	VOLUME	563995.431	4183205.896	1.78
LOCATION	L0003347	VOLUME	563995.654	4183205.783	1.78
LOCATION	L0003348	VOLUME	563995.877	4183205.670	1.78
LOCATION	L0003349	VOLUME	563996.100	4183205.557	1.79
LOCATION	L0003350	VOLUME	563996.323	4183205.444	1.79
LOCATION	L0003351	VOLUME	563996.546	4183205.331	1.79
LOCATION	L0003352	VOLUME	563996.769	4183205.218	1.79
LOCATION	L0003353	VOLUME	563996.992	4183205.105	1.79
LOCATION	L0003354	VOLUME	563997.215	4183204.992	1.79
LOCATION	L0003355	VOLUME	563997.438	4183204.879	1.79
LOCATION	L0003356	VOLUME	563997.660	4183204.766	1.80
LOCATION	L0003357	VOLUME	563997.883	4183204.653	1.80
LOCATION	L0003358	VOLUME	563998.106	4183204.540	1.80
LOCATION	L0003359	VOLUME	563998.329	4183204.427	1.80
LOCATION	L0003360	VOLUME	563998.552	4183204.314	1.80
LOCATION	L0003361	VOLUME	563998.775	4183204.201	1.80
LOCATION	L0003362	VOLUME	563998.998	4183204.088	1.81
LOCATION	L0003363	VOLUME	563999.221	4183203.975	1.81
LOCATION	L0003364	VOLUME	563999.444	4183203.862	1.81
LOCATION	L0003365	VOLUME	563999.667	4183203.748	1.81
LOCATION	L0003366	VOLUME	563999.890	4183203.635	1.81
LOCATION	L0003367	VOLUME	564000.113	4183203.522	1.86
LOCATION	L0003368	VOLUME	564000.336	4183203.409	1.86
LOCATION	L0003369	VOLUME	564000.559	4183203.296	1.87

LOCATION	L0003370	VOLUME	564000.782	4183203.183	1.87
LOCATION	L0003371	VOLUME	564001.005	4183203.070	1.88
LOCATION	L0003372	VOLUME	564001.228	4183202.957	1.88
LOCATION	L0003373	VOLUME	564001.451	4183202.844	1.89
LOCATION	L0003374	VOLUME	564001.674	4183202.731	1.89
LOCATION	L0003375	VOLUME	564001.897	4183202.618	1.90
LOCATION	L0003376	VOLUME	564002.120	4183202.505	1.90
LOCATION	L0003377	VOLUME	564002.343	4183202.392	1.90
LOCATION	L0003378	VOLUME	564002.566	4183202.279	1.91
LOCATION	L0003379	VOLUME	564002.789	4183202.166	1.91
LOCATION	L0003380	VOLUME	564003.012	4183202.053	1.91
LOCATION	L0003381	VOLUME	564003.235	4183201.940	1.91
LOCATION	L0003382	VOLUME	564003.458	4183201.827	1.92
LOCATION	L0003383	VOLUME	564003.681	4183201.714	1.92
LOCATION	L0003384	VOLUME	564003.904	4183201.601	1.92
LOCATION	L0003385	VOLUME	564004.127	4183201.488	1.92
LOCATION	L0003386	VOLUME	564004.350	4183201.375	1.93
LOCATION	L0003387	VOLUME	564004.573	4183201.262	1.93
LOCATION	L0003388	VOLUME	564004.796	4183201.149	1.92
LOCATION	L0003389	VOLUME	564005.019	4183201.036	1.93
LOCATION	L0003390	VOLUME	564005.242	4183200.922	1.93
LOCATION	L0003391	VOLUME	564005.465	4183200.809	1.93
LOCATION	L0003392	VOLUME	564005.688	4183200.696	1.93
LOCATION	L0003393	VOLUME	564005.911	4183200.583	1.93
LOCATION	L0003394	VOLUME	564006.134	4183200.470	1.93
LOCATION	L0003395	VOLUME	564006.357	4183200.357	1.93
LOCATION	L0003396	VOLUME	564006.580	4183200.244	1.92
LOCATION	L0003397	VOLUME	564006.803	4183200.131	1.92
LOCATION	L0003398	VOLUME	564007.026	4183200.018	1.92
LOCATION	L0003399	VOLUME	564007.249	4183199.905	1.92
LOCATION	L0003400	VOLUME	564007.472	4183199.792	1.97
LOCATION	L0003401	VOLUME	564007.695	4183199.679	1.97
LOCATION	L0003402	VOLUME	564007.918	4183199.566	1.97
LOCATION	L0003403	VOLUME	564008.141	4183199.453	1.97
LOCATION	L0003404	VOLUME	564008.364	4183199.340	1.97
LOCATION	L0003405	VOLUME	564008.587	4183199.227	1.97
LOCATION	L0003406	VOLUME	564008.810	4183199.114	1.97
LOCATION	L0003407	VOLUME	564009.033	4183199.001	1.96

LOCATION	L0003408	VOLUME	564009.256	4183198.888	1.96
LOCATION	L0003409	VOLUME	564009.479	4183198.775	1.96
LOCATION	L0003410	VOLUME	564009.702	4183198.662	1.96
LOCATION	L0003411	VOLUME	564009.925	4183198.549	1.96
LOCATION	L0003412	VOLUME	564010.148	4183198.436	1.96
LOCATION	L0003413	VOLUME	564010.371	4183198.323	1.96
LOCATION	L0003414	VOLUME	564010.594	4183198.210	1.96
LOCATION	L0003415	VOLUME	564010.817	4183198.096	1.95
LOCATION	L0003416	VOLUME	564011.040	4183197.983	1.95
LOCATION	L0003417	VOLUME	564011.263	4183197.870	1.95
LOCATION	L0003418	VOLUME	564011.486	4183197.757	1.95
LOCATION	L0003419	VOLUME	564011.708	4183197.644	1.95
LOCATION	L0003420	VOLUME	564011.931	4183197.531	1.95
LOCATION	L0003421	VOLUME	564012.154	4183197.418	1.95
LOCATION	L0003422	VOLUME	564012.377	4183197.305	1.95
LOCATION	L0003423	VOLUME	564012.600	4183197.192	1.95
LOCATION	L0003424	VOLUME	564012.823	4183197.079	1.94
LOCATION	L0003425	VOLUME	564013.046	4183196.966	1.94
LOCATION	L0003426	VOLUME	564013.269	4183196.853	1.94
LOCATION	L0003427	VOLUME	564013.492	4183196.740	1.94
LOCATION	L0003428	VOLUME	564013.715	4183196.627	1.94
LOCATION	L0003429	VOLUME	564013.938	4183196.514	1.94
LOCATION	L0003430	VOLUME	564014.161	4183196.401	1.94
LOCATION	L0003431	VOLUME	564014.384	4183196.288	1.94
LOCATION	L0003432	VOLUME	564014.607	4183196.175	1.94
LOCATION	L0003433	VOLUME	564014.830	4183196.062	1.94
LOCATION	L0003434	VOLUME	564015.053	4183195.949	1.94
LOCATION	L0003435	VOLUME	564015.276	4183195.836	1.94
LOCATION	L0003436	VOLUME	564015.499	4183195.723	1.94
LOCATION	L0003437	VOLUME	564015.722	4183195.610	1.94
LOCATION	L0003438	VOLUME	564015.945	4183195.497	1.94
LOCATION	L0003439	VOLUME	564016.168	4183195.383	1.94
LOCATION	L0003440	VOLUME	564016.391	4183195.270	1.94
LOCATION	L0003441	VOLUME	564016.614	4183195.157	1.94
LOCATION	L0003442	VOLUME	564016.837	4183195.044	1.94
LOCATION	L0003443	VOLUME	564017.060	4183194.931	1.95
LOCATION	L0003444	VOLUME	564017.283	4183194.818	1.95
LOCATION	L0003445	VOLUME	564017.506	4183194.705	1.95

LOCATION	L0003446	VOLUME	564017.729	4183194.592	1.95
LOCATION	L0003447	VOLUME	564017.952	4183194.479	1.95
LOCATION	L0003448	VOLUME	564018.175	4183194.366	1.95
LOCATION	L0003449	VOLUME	564018.398	4183194.253	1.95
LOCATION	L0003450	VOLUME	564018.621	4183194.140	1.95
LOCATION	L0003451	VOLUME	564018.844	4183194.027	1.95
LOCATION	L0003452	VOLUME	564019.067	4183193.914	1.96
LOCATION	L0003453	VOLUME	564019.290	4183193.801	1.96
LOCATION	L0003454	VOLUME	564019.513	4183193.688	1.96
LOCATION	L0003455	VOLUME	564019.736	4183193.575	1.96
LOCATION	L0003456	VOLUME	564019.959	4183193.462	1.96
LOCATION	L0003457	VOLUME	564020.182	4183193.349	1.96
LOCATION	L0003458	VOLUME	564020.405	4183193.236	1.96
LOCATION	L0003459	VOLUME	564020.628	4183193.123	1.96
LOCATION	L0003460	VOLUME	564020.851	4183193.010	1.97
LOCATION	L0003461	VOLUME	564021.074	4183192.897	1.97
LOCATION	L0003462	VOLUME	564021.297	4183192.784	1.97
LOCATION	L0003463	VOLUME	564021.520	4183192.671	1.97
LOCATION	L0003464	VOLUME	564021.743	4183192.557	1.97
LOCATION	L0003465	VOLUME	564021.966	4183192.444	1.97
LOCATION	L0003466	VOLUME	564022.189	4183192.331	1.97
LOCATION	L0003467	VOLUME	564022.412	4183192.218	1.97
LOCATION	L0003468	VOLUME	564022.635	4183192.105	1.97
LOCATION	L0003469	VOLUME	564022.858	4183191.992	1.98
LOCATION	L0003470	VOLUME	564023.081	4183191.879	1.98
LOCATION	L0003471	VOLUME	564023.304	4183191.766	1.98
LOCATION	L0003472	VOLUME	564023.527	4183191.653	1.98
LOCATION	L0003473	VOLUME	564023.750	4183191.540	1.98
LOCATION	L0003474	VOLUME	564023.973	4183191.427	1.96
LOCATION	L0003475	VOLUME	564024.196	4183191.314	1.96
LOCATION	L0003476	VOLUME	564024.419	4183191.201	1.96
LOCATION	L0003477	VOLUME	564024.642	4183191.088	1.96
LOCATION	L0003478	VOLUME	564024.865	4183190.975	1.96
LOCATION	L0003479	VOLUME	564025.088	4183190.862	1.96
LOCATION	L0003480	VOLUME	564025.311	4183190.749	1.96
LOCATION	L0003481	VOLUME	564025.533	4183190.636	1.96
LOCATION	L0003482	VOLUME	564025.756	4183190.523	1.96
LOCATION	L0003483	VOLUME	564025.979	4183190.410	1.96

LOCATION	L0003484	VOLUME	564026.202	4183190.297	1.95
LOCATION	L0003485	VOLUME	564026.425	4183190.184	1.95
LOCATION	L0003486	VOLUME	564026.648	4183190.071	1.95
LOCATION	L0003487	VOLUME	564026.871	4183189.958	1.95
LOCATION	L0003488	VOLUME	564027.094	4183189.845	1.95
LOCATION	L0003489	VOLUME	564027.317	4183189.731	1.94
LOCATION	L0003490	VOLUME	564027.540	4183189.618	1.94
LOCATION	L0003491	VOLUME	564027.763	4183189.505	1.94
LOCATION	L0003492	VOLUME	564027.986	4183189.392	1.94
LOCATION	L0003493	VOLUME	564028.209	4183189.279	1.93
LOCATION	L0003494	VOLUME	564028.432	4183189.166	1.93
LOCATION	L0003495	VOLUME	564028.655	4183189.053	1.93
LOCATION	L0003496	VOLUME	564028.878	4183188.940	1.93
LOCATION	L0003497	VOLUME	564029.101	4183188.827	1.92
LOCATION	L0003498	VOLUME	564029.324	4183188.714	1.92
LOCATION	L0003499	VOLUME	564029.547	4183188.601	1.91
LOCATION	L0003500	VOLUME	564029.770	4183188.488	1.91
LOCATION	L0003501	VOLUME	564029.993	4183188.375	1.90
LOCATION	L0003502	VOLUME	564030.216	4183188.262	1.90
LOCATION	L0003503	VOLUME	564030.439	4183188.149	1.90
LOCATION	L0003504	VOLUME	564030.662	4183188.036	1.89
LOCATION	L0003505	VOLUME	564030.885	4183187.923	1.89
LOCATION	L0003506	VOLUME	564031.108	4183187.810	1.89
LOCATION	L0003507	VOLUME	564031.331	4183187.697	1.88
LOCATION	L0003508	VOLUME	564031.554	4183187.584	1.88
LOCATION	L0003509	VOLUME	564031.777	4183187.471	1.88
LOCATION	L0003510	VOLUME	564032.000	4183187.358	1.87
LOCATION	L0003511	VOLUME	564032.223	4183187.245	1.87
LOCATION	L0003512	VOLUME	564032.446	4183187.132	1.87
LOCATION	L0003513	VOLUME	564032.669	4183187.019	1.86
LOCATION	L0003514	VOLUME	564032.892	4183186.905	1.86
LOCATION	L0003515	VOLUME	564033.115	4183186.792	1.85
LOCATION	L0003516	VOLUME	564033.338	4183186.679	1.85
LOCATION	L0003517	VOLUME	564033.561	4183186.566	1.84
LOCATION	L0003518	VOLUME	564033.784	4183186.453	1.84
LOCATION	L0003519	VOLUME	564034.007	4183186.340	1.83
LOCATION	L0003520	VOLUME	564034.230	4183186.227	1.83
LOCATION	L0003521	VOLUME	564034.453	4183186.114	1.83

LOCATION	L0003522	VOLUME	564034.676	4183186.001	1.83
LOCATION	L0003523	VOLUME	564034.899	4183185.888	1.82
LOCATION	L0003524	VOLUME	564035.122	4183185.775	1.82
LOCATION	L0003525	VOLUME	564035.345	4183185.662	1.82
LOCATION	L0003526	VOLUME	564035.568	4183185.549	1.81
LOCATION	L0003527	VOLUME	564035.791	4183185.436	1.81
LOCATION	L0003528	VOLUME	564036.014	4183185.323	1.80
LOCATION	L0003529	VOLUME	564036.237	4183185.210	1.81
LOCATION	L0003530	VOLUME	564036.460	4183185.097	1.80
LOCATION	L0003531	VOLUME	564036.683	4183184.984	1.80
LOCATION	L0003532	VOLUME	564036.906	4183184.871	1.79
LOCATION	L0003533	VOLUME	564037.129	4183184.758	1.79
LOCATION	L0003534	VOLUME	564037.352	4183184.645	1.80
LOCATION	L0003535	VOLUME	564037.575	4183184.532	1.79
LOCATION	L0003536	VOLUME	564037.798	4183184.419	1.79
LOCATION	L0003537	VOLUME	564038.021	4183184.306	1.79
LOCATION	L0003538	VOLUME	564038.244	4183184.192	1.79
LOCATION	L0003539	VOLUME	564038.467	4183184.079	1.78
LOCATION	L0003540	VOLUME	564038.690	4183183.966	1.78
LOCATION	L0003541	VOLUME	564038.913	4183183.853	1.78
LOCATION	L0003542	VOLUME	564039.136	4183183.740	1.78
LOCATION	L0003543	VOLUME	564039.358	4183183.627	1.78
LOCATION	L0003544	VOLUME	564039.581	4183183.514	1.78
LOCATION	L0003545	VOLUME	564039.804	4183183.401	1.78
LOCATION	L0003546	VOLUME	564040.027	4183183.288	1.77
LOCATION	L0003547	VOLUME	564040.250	4183183.175	1.78
LOCATION	L0003548	VOLUME	564040.473	4183183.062	1.77
LOCATION	L0003549	VOLUME	564040.696	4183182.949	1.77
LOCATION	L0003550	VOLUME	564040.919	4183182.836	1.77
LOCATION	L0003551	VOLUME	564041.142	4183182.723	1.77
LOCATION	L0003552	VOLUME	564041.365	4183182.610	1.77
LOCATION	L0003553	VOLUME	564041.588	4183182.497	1.77
LOCATION	L0003554	VOLUME	564041.811	4183182.384	1.77
LOCATION	L0003555	VOLUME	564042.034	4183182.271	1.77
LOCATION	L0003556	VOLUME	564042.257	4183182.158	1.77
LOCATION	L0003557	VOLUME	564042.480	4183182.045	1.77
LOCATION	L0003558	VOLUME	564042.703	4183181.932	1.77
LOCATION	L0003559	VOLUME	564042.926	4183181.819	1.77

LOCATION	L0003560	VOLUME	564043.149	4183181.706	1.77
LOCATION	L0003561	VOLUME	564043.372	4183181.593	1.76
LOCATION	L0003562	VOLUME	564043.595	4183181.480	1.77
LOCATION	L0003563	VOLUME	564043.818	4183181.366	1.76
LOCATION	L0003564	VOLUME	564044.041	4183181.253	1.77
LOCATION	L0003565	VOLUME	564044.264	4183181.140	1.77
LOCATION	L0003566	VOLUME	564044.487	4183181.027	1.77
LOCATION	L0003567	VOLUME	564044.710	4183180.914	1.77
LOCATION	L0003568	VOLUME	564044.933	4183180.801	1.76
LOCATION	L0003569	VOLUME	564045.156	4183180.688	1.77
LOCATION	L0003570	VOLUME	564045.379	4183180.575	1.76
LOCATION	L0003571	VOLUME	564045.602	4183180.462	1.77
LOCATION	L0003572	VOLUME	564045.825	4183180.349	1.76
LOCATION	L0003573	VOLUME	564046.048	4183180.236	1.77
LOCATION	L0003574	VOLUME	564046.271	4183180.123	1.76
LOCATION	L0003575	VOLUME	564046.494	4183180.010	1.77
LOCATION	L0003576	VOLUME	564046.717	4183179.897	1.77
LOCATION	L0003577	VOLUME	564046.940	4183179.784	1.76
LOCATION	L0003578	VOLUME	564047.163	4183179.671	1.77
LOCATION	L0003579	VOLUME	564047.386	4183179.558	1.76
LOCATION	L0003580	VOLUME	564047.609	4183179.445	1.77
LOCATION	L0003581	VOLUME	564047.832	4183179.332	1.76
LOCATION	L0003582	VOLUME	564048.055	4183179.219	2.00
LOCATION	L0003583	VOLUME	564048.278	4183179.106	2.00
LOCATION	L0003584	VOLUME	564048.501	4183178.993	2.00
LOCATION	L0003585	VOLUME	564048.724	4183178.880	2.00
LOCATION	L0003586	VOLUME	564048.947	4183178.767	2.00
LOCATION	L0003587	VOLUME	564049.170	4183178.654	2.00
LOCATION	L0003588	VOLUME	564049.393	4183178.540	2.00
LOCATION	L0003589	VOLUME	564049.616	4183178.427	2.00
LOCATION	L0003590	VOLUME	564049.839	4183178.314	2.00
LOCATION	L0003591	VOLUME	564050.062	4183178.201	2.00
LOCATION	L0003592	VOLUME	564050.285	4183178.088	2.00
LOCATION	L0003593	VOLUME	564050.508	4183177.975	2.00
LOCATION	L0003594	VOLUME	564050.731	4183177.862	2.00
LOCATION	L0003595	VOLUME	564050.954	4183177.749	2.00
LOCATION	L0003596	VOLUME	564051.177	4183177.636	2.00
LOCATION	L0003597	VOLUME	564051.400	4183177.523	2.00

LOCATION	L0003598	VOLUME	564051.623	4183177.410	2.00
LOCATION	L0003599	VOLUME	564051.846	4183177.297	2.00
LOCATION	L0003600	VOLUME	564052.069	4183177.184	2.00
LOCATION	L0003601	VOLUME	564052.292	4183177.071	2.00
LOCATION	L0003602	VOLUME	564052.515	4183176.958	2.00
LOCATION	L0003603	VOLUME	564052.738	4183176.845	2.00
LOCATION	L0003604	VOLUME	564052.961	4183176.732	2.00
LOCATION	L0003605	VOLUME	564053.184	4183176.619	2.00
LOCATION	L0003606	VOLUME	564053.406	4183176.506	2.00
LOCATION	L0003607	VOLUME	564053.629	4183176.393	2.00
LOCATION	L0003608	VOLUME	564053.852	4183176.280	2.00
LOCATION	L0003609	VOLUME	564054.075	4183176.167	2.00
LOCATION	L0003610	VOLUME	564054.298	4183176.054	2.00
LOCATION	L0003611	VOLUME	564054.521	4183175.941	2.00
LOCATION	L0003612	VOLUME	564054.744	4183175.827	1.80
LOCATION	L0003613	VOLUME	564054.967	4183175.714	1.80
LOCATION	L0003614	VOLUME	564055.190	4183175.601	1.81
LOCATION	L0003615	VOLUME	564055.413	4183175.488	1.81
LOCATION	L0003616	VOLUME	564055.636	4183175.375	1.81
LOCATION	L0003617	VOLUME	564055.859	4183175.262	1.81
LOCATION	L0003618	VOLUME	564056.082	4183175.149	1.81
LOCATION	L0003619	VOLUME	564056.305	4183175.036	1.81
LOCATION	L0003620	VOLUME	564056.528	4183174.923	1.81
LOCATION	L0003621	VOLUME	564056.751	4183174.810	1.82
LOCATION	L0003622	VOLUME	564056.974	4183174.697	1.82
LOCATION	L0003623	VOLUME	564057.197	4183174.584	1.82
LOCATION	L0003624	VOLUME	564057.420	4183174.471	1.82
LOCATION	L0003625	VOLUME	564057.643	4183174.358	1.82
LOCATION	L0003626	VOLUME	564057.866	4183174.245	1.82
LOCATION	L0003627	VOLUME	564058.089	4183174.132	1.82
LOCATION	L0003628	VOLUME	564058.312	4183174.019	1.82
LOCATION	L0003629	VOLUME	564058.535	4183173.906	1.82
LOCATION	L0003630	VOLUME	564058.758	4183173.793	1.82
LOCATION	L0003631	VOLUME	564058.981	4183173.680	1.82
LOCATION	L0003632	VOLUME	564059.204	4183173.567	1.82
LOCATION	L0003633	VOLUME	564059.427	4183173.454	1.82
LOCATION	L0003634	VOLUME	564059.650	4183173.341	1.82
LOCATION	L0003635	VOLUME	564059.873	4183173.228	1.82

LOCATION	L0003636	VOLUME	564060.096	4183173.115	1.82
LOCATION	L0003637	VOLUME	564060.319	4183173.001	1.82
LOCATION	L0003638	VOLUME	564060.542	4183172.888	1.82
LOCATION	L0003639	VOLUME	564060.765	4183172.775	1.82
LOCATION	L0003640	VOLUME	564060.988	4183172.662	1.82
LOCATION	L0003641	VOLUME	564061.211	4183172.549	1.82
LOCATION	L0003642	VOLUME	564061.434	4183172.436	1.82
LOCATION	L0003643	VOLUME	564061.657	4183172.323	1.82
LOCATION	L0003644	VOLUME	564061.880	4183172.210	1.82
LOCATION	L0003645	VOLUME	564062.103	4183172.097	1.82
LOCATION	L0003646	VOLUME	564062.326	4183171.984	1.82
LOCATION	L0003647	VOLUME	564062.549	4183171.871	1.83
LOCATION	L0003648	VOLUME	564062.772	4183171.758	1.83
LOCATION	L0003649	VOLUME	564062.995	4183171.645	1.83
LOCATION	L0003650	VOLUME	564063.218	4183171.532	1.83
LOCATION	L0003651	VOLUME	564063.441	4183171.419	1.83
LOCATION	L0003652	VOLUME	564063.664	4183171.306	1.83
LOCATION	L0003653	VOLUME	564063.887	4183171.193	1.83
LOCATION	L0003654	VOLUME	564064.110	4183171.080	1.83
LOCATION	L0003655	VOLUME	564064.333	4183170.967	1.83
LOCATION	L0003656	VOLUME	564064.556	4183170.854	1.84
LOCATION	L0003657	VOLUME	564064.779	4183170.741	1.84
LOCATION	L0003658	VOLUME	564065.002	4183170.628	1.84
LOCATION	L0003659	VOLUME	564065.225	4183170.515	1.84
LOCATION	L0003660	VOLUME	564065.448	4183170.402	1.85
LOCATION	L0003661	VOLUME	564065.671	4183170.289	1.85
LOCATION	L0003662	VOLUME	564065.894	4183170.175	1.85
LOCATION	L0003663	VOLUME	564066.117	4183170.062	1.86
LOCATION	L0003664	VOLUME	564066.340	4183169.949	1.86
LOCATION	L0003665	VOLUME	564066.563	4183169.836	1.86
LOCATION	L0003666	VOLUME	564066.786	4183169.723	1.87
LOCATION	L0003667	VOLUME	564067.009	4183169.610	1.87
LOCATION	L0003668	VOLUME	564067.231	4183169.497	1.87
LOCATION	L0003669	VOLUME	564067.454	4183169.384	1.88
LOCATION	L0003670	VOLUME	564067.677	4183169.271	1.88
LOCATION	L0003671	VOLUME	564067.900	4183169.158	1.89
LOCATION	L0003672	VOLUME	564068.123	4183169.045	1.89
LOCATION	L0003673	VOLUME	564068.346	4183168.932	1.90

LOCATION	L0003674	VOLUME	564068.569	4183168.819	1.90
LOCATION	L0003675	VOLUME	564068.792	4183168.706	1.90
LOCATION	L0003676	VOLUME	564069.015	4183168.593	1.91
LOCATION	L0003677	VOLUME	564069.238	4183168.480	1.91
LOCATION	L0003678	VOLUME	564069.461	4183168.367	1.92
LOCATION	L0003679	VOLUME	564069.684	4183168.254	1.92
LOCATION	L0003680	VOLUME	564069.907	4183168.141	1.93
LOCATION	L0003681	VOLUME	564070.130	4183168.028	1.93
LOCATION	L0003682	VOLUME	564070.353	4183167.915	1.94
LOCATION	L0003683	VOLUME	564070.576	4183167.802	1.94
LOCATION	L0003684	VOLUME	564070.799	4183167.689	1.95
LOCATION	L0003685	VOLUME	564071.022	4183167.576	1.95
LOCATION	L0003686	VOLUME	564071.245	4183167.462	1.95
LOCATION	L0003687	VOLUME	564071.468	4183167.349	1.96
LOCATION	L0003688	VOLUME	564071.691	4183167.236	1.96
LOCATION	L0003689	VOLUME	564071.914	4183167.123	1.97
LOCATION	L0003690	VOLUME	564072.137	4183167.010	2.02
LOCATION	L0003691	VOLUME	564072.360	4183166.897	2.02
LOCATION	L0003692	VOLUME	564072.583	4183166.784	2.02
LOCATION	L0003693	VOLUME	564072.806	4183166.671	2.02
LOCATION	L0003694	VOLUME	564073.029	4183166.558	2.01
LOCATION	L0003695	VOLUME	564073.252	4183166.445	2.01
LOCATION	L0003696	VOLUME	564073.475	4183166.332	2.01
LOCATION	L0003697	VOLUME	564073.698	4183166.219	2.01
LOCATION	L0003698	VOLUME	564073.921	4183166.106	2.01
LOCATION	L0003699	VOLUME	564074.144	4183165.993	2.01
LOCATION	L0003700	VOLUME	564074.367	4183165.880	2.00
LOCATION	L0003701	VOLUME	564074.590	4183165.767	2.00
LOCATION	L0003702	VOLUME	564074.813	4183165.654	2.00
LOCATION	L0003703	VOLUME	564075.036	4183165.541	2.00
LOCATION	L0003704	VOLUME	564075.259	4183165.428	2.00
LOCATION	L0003705	VOLUME	564075.482	4183165.315	2.00
LOCATION	L0003706	VOLUME	564075.705	4183165.202	2.00
LOCATION	L0003707	VOLUME	564075.928	4183165.089	2.00
LOCATION	L0003708	VOLUME	564076.151	4183164.976	2.00
LOCATION	L0003709	VOLUME	564076.374	4183164.863	2.00
LOCATION	L0003710	VOLUME	564076.597	4183164.750	2.00
LOCATION	L0003711	VOLUME	564076.820	4183164.636	2.00

LOCATION	L0003712	VOLUME	564077.043	4183164.523	2.00
LOCATION	L0003713	VOLUME	564077.266	4183164.410	2.00
LOCATION	L0003714	VOLUME	564077.489	4183164.297	2.01
LOCATION	L0003715	VOLUME	564077.712	4183164.184	2.01
LOCATION	L0003716	VOLUME	564077.935	4183164.071	2.01
LOCATION	L0003717	VOLUME	564078.158	4183163.958	2.01
LOCATION	L0003718	VOLUME	564078.381	4183163.845	2.02
LOCATION	L0003719	VOLUME	564078.604	4183163.732	2.02
LOCATION	L0003720	VOLUME	564078.827	4183163.619	2.02
LOCATION	L0003721	VOLUME	564079.050	4183163.506	2.03
LOCATION	L0003722	VOLUME	564079.273	4183163.393	2.03
LOCATION	L0003723	VOLUME	564079.496	4183163.280	2.04
LOCATION	L0003724	VOLUME	564079.719	4183163.167	2.04
LOCATION	L0003725	VOLUME	564079.942	4183163.054	2.05
LOCATION	L0003726	VOLUME	564080.165	4183162.941	2.05
LOCATION	L0003727	VOLUME	564080.388	4183162.828	2.06
LOCATION	L0003728	VOLUME	564080.611	4183162.715	2.06
LOCATION	L0003729	VOLUME	564080.834	4183162.602	2.07
LOCATION	L0003730	VOLUME	564081.056	4183162.489	2.08
LOCATION	L0003731	VOLUME	564081.279	4183162.376	2.08
LOCATION	L0003732	VOLUME	564081.502	4183162.263	2.09
LOCATION	L0003733	VOLUME	564081.725	4183162.150	2.10
LOCATION	L0003734	VOLUME	564081.948	4183162.037	2.11
LOCATION	L0003735	VOLUME	564082.171	4183161.924	2.11
LOCATION	L0003736	VOLUME	564082.394	4183161.810	2.12
LOCATION	L0003737	VOLUME	564082.617	4183161.697	2.13
LOCATION	L0003738	VOLUME	564082.840	4183161.584	2.14
LOCATION	L0003739	VOLUME	564083.063	4183161.471	2.15
LOCATION	L0003740	VOLUME	564083.286	4183161.358	2.16
LOCATION	L0003741	VOLUME	564083.509	4183161.245	2.17
LOCATION	L0003742	VOLUME	564083.732	4183161.132	2.18
LOCATION	L0003743	VOLUME	564083.955	4183161.019	2.19
LOCATION	L0003744	VOLUME	564084.178	4183160.906	2.20
LOCATION	L0003745	VOLUME	564084.401	4183160.793	2.21
LOCATION	L0003746	VOLUME	564084.624	4183160.680	2.22
LOCATION	L0003747	VOLUME	564084.847	4183160.567	2.24
LOCATION	L0003748	VOLUME	564085.070	4183160.454	2.25
LOCATION	L0003749	VOLUME	564085.293	4183160.341	2.26

LOCATION	L0003750	VOLUME	564085.516	4183160.228	2.27
LOCATION	L0003751	VOLUME	564085.739	4183160.115	2.28
LOCATION	L0003752	VOLUME	564085.962	4183160.002	2.29
LOCATION	L0003753	VOLUME	564086.185	4183159.889	2.30
LOCATION	L0003754	VOLUME	564086.408	4183159.776	2.32
LOCATION	L0003755	VOLUME	564086.631	4183159.663	2.33
LOCATION	L0003756	VOLUME	564086.854	4183159.550	2.34
LOCATION	L0003757	VOLUME	564087.077	4183159.437	2.35
LOCATION	L0003758	VOLUME	564087.300	4183159.324	2.36
LOCATION	L0003759	VOLUME	564087.523	4183159.211	2.37
LOCATION	L0003760	VOLUME	564087.746	4183159.098	2.39
LOCATION	L0003761	VOLUME	564087.969	4183158.984	2.40
LOCATION	L0003762	VOLUME	564088.192	4183158.871	2.41
LOCATION	L0003763	VOLUME	564088.415	4183158.758	2.42
LOCATION	L0003764	VOLUME	564088.638	4183158.645	2.43
LOCATION	L0003765	VOLUME	564088.861	4183158.532	2.44
LOCATION	L0003766	VOLUME	564089.084	4183158.419	2.45
LOCATION	L0003767	VOLUME	564089.307	4183158.306	2.46
LOCATION	L0003768	VOLUME	564089.530	4183158.193	2.47
LOCATION	L0003769	VOLUME	564089.753	4183158.080	2.48
LOCATION	L0003770	VOLUME	564089.976	4183157.967	2.50
LOCATION	L0003771	VOLUME	564090.199	4183157.854	2.50
LOCATION	L0003772	VOLUME	564090.422	4183157.741	2.51
LOCATION	L0003773	VOLUME	564090.645	4183157.628	2.52
LOCATION	L0003774	VOLUME	564090.868	4183157.515	2.53
LOCATION	L0003775	VOLUME	564091.091	4183157.402	2.54
LOCATION	L0003776	VOLUME	564091.314	4183157.289	2.55
LOCATION	L0003777	VOLUME	564091.537	4183157.176	2.56
LOCATION	L0003778	VOLUME	564091.760	4183157.063	2.56
LOCATION	L0003779	VOLUME	564091.983	4183156.950	2.58
LOCATION	L0003780	VOLUME	564092.206	4183156.837	2.58
LOCATION	L0003781	VOLUME	564092.429	4183156.724	2.59
LOCATION	L0003782	VOLUME	564092.652	4183156.611	2.59
LOCATION	L0003783	VOLUME	564092.875	4183156.498	2.60
LOCATION	L0003784	VOLUME	564093.098	4183156.385	2.61
LOCATION	L0003785	VOLUME	564093.321	4183156.271	2.61
LOCATION	L0003786	VOLUME	564093.544	4183156.158	2.62
LOCATION	L0003787	VOLUME	564093.767	4183156.045	2.62

LOCATION	L0003788	VOLUME	564093.990	4183155.932	2.63
LOCATION	L0003789	VOLUME	564094.213	4183155.819	2.63
LOCATION	L0003790	VOLUME	564094.436	4183155.706	2.64
LOCATION	L0003791	VOLUME	564094.659	4183155.593	2.64
LOCATION	L0003792	VOLUME	564094.882	4183155.480	2.65
LOCATION	L0003793	VOLUME	564095.104	4183155.367	2.65
LOCATION	L0003794	VOLUME	564095.327	4183155.254	2.65
LOCATION	L0003795	VOLUME	564095.550	4183155.141	2.66
LOCATION	L0003796	VOLUME	564095.773	4183155.028	2.66
LOCATION	L0003797	VOLUME	564095.996	4183154.915	2.85
LOCATION	L0003798	VOLUME	564096.219	4183154.802	2.85
LOCATION	L0003799	VOLUME	564096.442	4183154.689	2.85
LOCATION	L0003800	VOLUME	564096.665	4183154.576	2.85
LOCATION	L0003801	VOLUME	564096.888	4183154.463	2.86
LOCATION	L0003802	VOLUME	564097.111	4183154.350	2.86
LOCATION	L0003803	VOLUME	564097.334	4183154.237	2.86
LOCATION	L0003804	VOLUME	564097.557	4183154.124	2.86
LOCATION	L0003805	VOLUME	564097.780	4183154.011	2.87
LOCATION	L0003806	VOLUME	564098.003	4183153.898	2.87
LOCATION	L0003807	VOLUME	564098.226	4183153.785	2.87
LOCATION	L0003808	VOLUME	564098.449	4183153.672	2.87
LOCATION	L0003809	VOLUME	564098.672	4183153.559	2.87
LOCATION	L0003810	VOLUME	564098.895	4183153.445	2.88
LOCATION	L0003811	VOLUME	564099.118	4183153.332	2.88
LOCATION	L0003812	VOLUME	564099.341	4183153.219	2.88
LOCATION	L0003813	VOLUME	564099.564	4183153.106	2.88
LOCATION	L0003814	VOLUME	564099.787	4183152.993	2.88
LOCATION	L0003815	VOLUME	564100.010	4183152.880	2.88
LOCATION	L0003816	VOLUME	564100.233	4183152.767	2.89
LOCATION	L0003817	VOLUME	564100.456	4183152.654	2.89
LOCATION	L0003818	VOLUME	564100.679	4183152.541	2.89
LOCATION	L0003819	VOLUME	564100.902	4183152.428	2.89
LOCATION	L0003820	VOLUME	564101.125	4183152.315	2.89
LOCATION	L0003821	VOLUME	564101.348	4183152.202	2.89
LOCATION	L0003822	VOLUME	564101.571	4183152.089	2.89
LOCATION	L0003823	VOLUME	564101.794	4183151.976	2.89
LOCATION	L0003824	VOLUME	564102.017	4183151.863	2.76
LOCATION	L0003825	VOLUME	564102.240	4183151.750	2.76

LOCATION	L0003826	VOLUME	564102.463	4183151.637	2.77
LOCATION	L0003827	VOLUME	564102.686	4183151.524	2.77
LOCATION	L0003828	VOLUME	564102.909	4183151.411	2.77
LOCATION	L0003829	VOLUME	564103.132	4183151.298	2.78
LOCATION	L0003830	VOLUME	564103.355	4183151.185	2.78
LOCATION	L0003831	VOLUME	564103.578	4183151.072	2.78
LOCATION	L0003832	VOLUME	564103.801	4183150.959	2.78
LOCATION	L0003833	VOLUME	564104.024	4183150.846	2.79
LOCATION	L0003834	VOLUME	564104.247	4183150.733	2.79
LOCATION	L0003835	VOLUME	564104.470	4183150.619	2.79
LOCATION	L0003836	VOLUME	564104.693	4183150.506	2.79
LOCATION	L0003837	VOLUME	564104.916	4183150.393	2.80
LOCATION	L0003838	VOLUME	564105.139	4183150.280	2.80
LOCATION	L0003839	VOLUME	564105.362	4183150.167	2.80
LOCATION	L0003840	VOLUME	564105.585	4183150.054	2.80
LOCATION	L0003841	VOLUME	564105.808	4183149.941	2.80
LOCATION	L0003842	VOLUME	564106.031	4183149.828	2.81
LOCATION	L0003843	VOLUME	564106.254	4183149.715	2.81
LOCATION	L0003844	VOLUME	564106.477	4183149.602	2.81
LOCATION	L0003845	VOLUME	564106.700	4183149.489	2.81
LOCATION	L0003846	VOLUME	564106.923	4183149.376	2.81
LOCATION	L0003847	VOLUME	564107.146	4183149.263	2.82
LOCATION	L0003848	VOLUME	564107.369	4183149.150	2.82
LOCATION	L0003849	VOLUME	564107.592	4183149.037	2.82
LOCATION	L0003850	VOLUME	564107.815	4183148.924	2.82
LOCATION	L0003851	VOLUME	564108.038	4183148.811	2.82
LOCATION	L0003852	VOLUME	564108.261	4183148.698	2.83
LOCATION	L0003853	VOLUME	564108.484	4183148.585	2.83
LOCATION	L0003854	VOLUME	564108.707	4183148.472	2.83
LOCATION	L0003855	VOLUME	564108.929	4183148.359	2.83
LOCATION	L0003856	VOLUME	564109.152	4183148.246	2.83
LOCATION	L0003857	VOLUME	564109.375	4183148.133	2.83
LOCATION	L0003858	VOLUME	564109.598	4183148.020	2.84
LOCATION	L0003859	VOLUME	564109.821	4183147.906	2.84
LOCATION	L0003860	VOLUME	564110.044	4183147.793	2.84
LOCATION	L0003861	VOLUME	564110.267	4183147.680	2.84
LOCATION	L0003862	VOLUME	564110.490	4183147.567	2.84
LOCATION	L0003863	VOLUME	564110.713	4183147.454	2.84

LOCATION	L0003864	VOLUME	564110.936	4183147.341	2.84
LOCATION	L0003865	VOLUME	564111.159	4183147.228	2.85
LOCATION	L0003866	VOLUME	564111.382	4183147.115	2.85
LOCATION	L0003867	VOLUME	564111.605	4183147.002	2.85
LOCATION	L0003868	VOLUME	564111.828	4183146.889	2.85
LOCATION	L0003869	VOLUME	564112.051	4183146.776	2.85
LOCATION	L0003870	VOLUME	564112.274	4183146.663	2.85
LOCATION	L0003871	VOLUME	564112.497	4183146.550	2.85
LOCATION	L0003872	VOLUME	564112.720	4183146.437	2.86
LOCATION	L0003873	VOLUME	564112.943	4183146.324	2.86
LOCATION	L0003874	VOLUME	564113.166	4183146.211	2.86
LOCATION	L0003875	VOLUME	564113.389	4183146.098	2.86
LOCATION	L0003876	VOLUME	564113.612	4183145.985	2.86
LOCATION	L0003877	VOLUME	564113.835	4183145.872	2.87
LOCATION	L0003878	VOLUME	564114.058	4183145.759	2.87
LOCATION	L0003879	VOLUME	564114.281	4183145.646	2.87
LOCATION	L0003880	VOLUME	564114.504	4183145.533	2.87
LOCATION	L0003881	VOLUME	564114.727	4183145.420	2.87
LOCATION	L0003882	VOLUME	564114.950	4183145.307	2.87
LOCATION	L0003883	VOLUME	564115.173	4183145.194	2.88
LOCATION	L0003884	VOLUME	564115.396	4183145.080	2.88
LOCATION	L0003885	VOLUME	564115.619	4183144.967	2.88
LOCATION	L0003886	VOLUME	564115.842	4183144.854	2.88
LOCATION	L0003887	VOLUME	564116.065	4183144.741	2.88
LOCATION	L0003888	VOLUME	564116.288	4183144.628	2.89
LOCATION	L0003889	VOLUME	564116.511	4183144.515	2.89
LOCATION	L0003890	VOLUME	564116.734	4183144.402	2.89
LOCATION	L0003891	VOLUME	564116.957	4183144.289	2.89
LOCATION	L0003892	VOLUME	564117.180	4183144.176	2.90
LOCATION	L0003893	VOLUME	564117.403	4183144.063	2.90
LOCATION	L0003894	VOLUME	564117.626	4183143.950	2.90
LOCATION	L0003895	VOLUME	564117.849	4183143.837	2.91
LOCATION	L0003896	VOLUME	564118.072	4183143.724	2.91
LOCATION	L0003897	VOLUME	564118.295	4183143.611	2.91
LOCATION	L0003898	VOLUME	564118.518	4183143.498	2.91
LOCATION	L0003899	VOLUME	564118.741	4183143.385	2.91
LOCATION	L0003900	VOLUME	564118.964	4183143.272	2.92
LOCATION	L0003901	VOLUME	564119.187	4183143.159	2.92

LOCATION	L0003902	VOLUME	564119.410	4183143.046	2.92
LOCATION	L0003903	VOLUME	564119.633	4183142.933	2.92
LOCATION	L0003904	VOLUME	564119.856	4183142.820	2.93
LOCATION	L0003905	VOLUME	564120.079	4183142.707	2.89
LOCATION	L0003906	VOLUME	564120.302	4183142.594	2.89
LOCATION	L0003907	VOLUME	564120.525	4183142.481	2.89
LOCATION	L0003908	VOLUME	564120.748	4183142.368	2.90
LOCATION	L0003909	VOLUME	564120.971	4183142.254	2.90
LOCATION	L0003910	VOLUME	564121.194	4183142.141	2.90
LOCATION	L0003911	VOLUME	564121.417	4183142.028	2.90
LOCATION	L0003912	VOLUME	564121.640	4183141.915	2.91
LOCATION	L0003913	VOLUME	564121.863	4183141.802	2.91
LOCATION	L0003914	VOLUME	564122.086	4183141.689	2.91
LOCATION	L0003915	VOLUME	564122.309	4183141.576	2.92
LOCATION	L0003916	VOLUME	564122.532	4183141.463	2.92
LOCATION	L0003917	VOLUME	564122.755	4183141.350	2.92
LOCATION	L0003918	VOLUME	564122.977	4183141.237	2.92
LOCATION	L0003919	VOLUME	564123.200	4183141.124	2.93
LOCATION	L0003920	VOLUME	564123.423	4183141.011	2.93
LOCATION	L0003921	VOLUME	564123.646	4183140.898	2.93
LOCATION	L0003922	VOLUME	564123.869	4183140.785	2.93
LOCATION	L0003923	VOLUME	564124.092	4183140.672	2.93
LOCATION	L0003924	VOLUME	564124.315	4183140.559	2.94
LOCATION	L0003925	VOLUME	564124.538	4183140.446	2.94
LOCATION	L0003926	VOLUME	564124.761	4183140.333	2.94
LOCATION	L0003927	VOLUME	564124.984	4183140.220	2.94
LOCATION	L0003928	VOLUME	564125.207	4183140.107	2.95
LOCATION	L0003929	VOLUME	564125.430	4183139.994	2.94
LOCATION	L0003930	VOLUME	564125.653	4183139.881	2.94
LOCATION	L0003931	VOLUME	564125.876	4183139.768	2.95
LOCATION	L0003932	VOLUME	564126.099	4183139.655	2.95
LOCATION	L0003933	VOLUME	564126.322	4183139.541	2.95
LOCATION	L0003934	VOLUME	564126.545	4183139.428	2.95
LOCATION	L0003935	VOLUME	564126.768	4183139.315	2.95
LOCATION	L0003936	VOLUME	564126.991	4183139.202	2.95
LOCATION	L0003937	VOLUME	564127.214	4183139.089	2.95
LOCATION	L0003938	VOLUME	564127.437	4183138.976	2.95
LOCATION	L0003939	VOLUME	564127.660	4183138.863	2.95

LOCATION	L0003940	VOLUME	564127.883	4183138.750	2.94
LOCATION	L0003941	VOLUME	564128.106	4183138.637	2.94
LOCATION	L0003942	VOLUME	564128.329	4183138.524	2.94
LOCATION	L0003943	VOLUME	564128.552	4183138.411	2.93
LOCATION	L0003944	VOLUME	564128.775	4183138.298	2.93
LOCATION	L0003945	VOLUME	564128.998	4183138.185	2.93
LOCATION	L0003946	VOLUME	564129.221	4183138.072	2.93
LOCATION	L0003947	VOLUME	564129.444	4183137.959	2.92
LOCATION	L0003948	VOLUME	564129.667	4183137.846	2.92
LOCATION	L0003949	VOLUME	564129.890	4183137.733	2.91
LOCATION	L0003950	VOLUME	564130.113	4183137.620	2.91
LOCATION	L0003951	VOLUME	564130.336	4183137.507	2.90
LOCATION	L0003952	VOLUME	564130.559	4183137.394	2.89
LOCATION	L0003953	VOLUME	564130.782	4183137.281	2.88
LOCATION	L0003954	VOLUME	564131.005	4183137.168	2.88
LOCATION	L0003955	VOLUME	564131.228	4183137.055	2.87
LOCATION	L0003956	VOLUME	564131.451	4183136.942	2.86
LOCATION	L0003957	VOLUME	564131.674	4183136.829	2.85
LOCATION	L0003958	VOLUME	564131.897	4183136.715	2.84
LOCATION	L0003959	VOLUME	564132.120	4183136.602	2.83
LOCATION	L0003960	VOLUME	564132.343	4183136.489	2.82
LOCATION	L0003961	VOLUME	564132.566	4183136.376	2.81
LOCATION	L0003962	VOLUME	564132.789	4183136.263	2.80
LOCATION	L0003963	VOLUME	564133.012	4183136.150	2.79
LOCATION	L0003964	VOLUME	564133.235	4183136.037	2.77
LOCATION	L0003965	VOLUME	564133.458	4183135.924	2.76
LOCATION	L0003966	VOLUME	564133.681	4183135.811	2.75
LOCATION	L0003967	VOLUME	564133.904	4183135.698	2.74
LOCATION	L0003968	VOLUME	564134.127	4183135.585	2.72
LOCATION	L0003969	VOLUME	564134.350	4183135.472	2.71
LOCATION	L0003970	VOLUME	564134.573	4183135.359	2.69
LOCATION	L0003971	VOLUME	564134.796	4183135.246	2.68
LOCATION	L0003972	VOLUME	564135.019	4183135.133	2.66
LOCATION	L0003973	VOLUME	564135.242	4183135.020	2.65
LOCATION	L0003974	VOLUME	564135.465	4183134.907	2.63
LOCATION	L0003975	VOLUME	564135.688	4183134.794	2.62
LOCATION	L0003976	VOLUME	564135.911	4183134.681	2.60
LOCATION	L0003977	VOLUME	564136.134	4183134.568	2.58

LOCATION	L0003978	VOLUME	564136.357	4183134.455	2.57
LOCATION	L0003979	VOLUME	564136.580	4183134.342	2.55
LOCATION	L0003980	VOLUME	564136.802	4183134.229	2.53
LOCATION	L0003981	VOLUME	564137.025	4183134.116	2.52
LOCATION	L0003982	VOLUME	564137.248	4183134.003	2.50
LOCATION	L0003983	VOLUME	564137.471	4183133.889	2.48
LOCATION	L0003984	VOLUME	564137.694	4183133.776	2.47
LOCATION	L0003985	VOLUME	564137.917	4183133.663	2.45
LOCATION	L0003986	VOLUME	564138.140	4183133.550	2.44
LOCATION	L0003987	VOLUME	564138.363	4183133.437	2.42
LOCATION	L0003988	VOLUME	564138.586	4183133.324	2.41
LOCATION	L0003989	VOLUME	564138.809	4183133.211	2.39
LOCATION	L0003990	VOLUME	564139.032	4183133.098	2.37
LOCATION	L0003991	VOLUME	564139.255	4183132.985	2.36
LOCATION	L0003992	VOLUME	564139.478	4183132.872	2.35
LOCATION	L0003993	VOLUME	564139.701	4183132.759	2.33
LOCATION	L0003994	VOLUME	564139.924	4183132.646	2.32
LOCATION	L0003995	VOLUME	564140.147	4183132.533	2.31
LOCATION	L0003996	VOLUME	564140.370	4183132.420	2.29
LOCATION	L0003997	VOLUME	564140.593	4183132.307	2.28
LOCATION	L0003998	VOLUME	564140.816	4183132.194	2.27
LOCATION	L0003999	VOLUME	564141.039	4183132.081	2.25
LOCATION	L0004000	VOLUME	564141.262	4183131.968	2.24
LOCATION	L0004001	VOLUME	564141.485	4183131.855	2.23
LOCATION	L0004002	VOLUME	564141.708	4183131.742	2.22
LOCATION	L0004003	VOLUME	564141.931	4183131.629	2.21
LOCATION	L0004004	VOLUME	564142.154	4183131.516	2.20
LOCATION	L0004005	VOLUME	564142.377	4183131.403	2.19
LOCATION	L0004006	VOLUME	564142.600	4183131.290	2.18
LOCATION	L0004007	VOLUME	564142.823	4183131.177	2.17
LOCATION	L0004008	VOLUME	564143.046	4183131.063	2.17
LOCATION	L0004009	VOLUME	564143.269	4183130.950	2.16
LOCATION	L0004010	VOLUME	564143.492	4183130.837	2.15
LOCATION	L0004011	VOLUME	564143.715	4183130.724	2.15
LOCATION	L0004012	VOLUME	564143.938	4183130.611	2.14
LOCATION	L0004013	VOLUME	564144.161	4183130.498	2.01
LOCATION	L0004014	VOLUME	564144.384	4183130.385	2.00
LOCATION	L0004015	VOLUME	564144.607	4183130.272	2.00

LOCATION	L0004016	VOLUME	564144.830	4183130.159	2.00
LOCATION	L0004017	VOLUME	564145.053	4183130.046	1.99
LOCATION	L0004018	VOLUME	564145.276	4183129.933	1.99
LOCATION	L0004019	VOLUME	564145.499	4183129.820	1.98
LOCATION	L0004020	VOLUME	564145.722	4183129.707	1.98
LOCATION	L0004021	VOLUME	564145.945	4183129.594	1.98
LOCATION	L0004022	VOLUME	564146.168	4183129.481	1.98
LOCATION	L0004023	VOLUME	564146.391	4183129.368	1.97
LOCATION	L0004024	VOLUME	564146.614	4183129.255	1.97
LOCATION	L0004025	VOLUME	564146.837	4183129.142	1.97
LOCATION	L0004026	VOLUME	564147.060	4183129.029	1.96
LOCATION	L0004027	VOLUME	564147.283	4183128.916	1.96
LOCATION	L0004028	VOLUME	564147.506	4183128.803	1.96
LOCATION	L0004029	VOLUME	564147.729	4183128.690	1.95
LOCATION	L0004030	VOLUME	564147.952	4183128.577	1.95
LOCATION	L0004031	VOLUME	564148.175	4183128.464	1.95
LOCATION	L0004032	VOLUME	564148.398	4183128.350	1.94
LOCATION	L0004033	VOLUME	564148.621	4183128.237	1.94
LOCATION	L0004034	VOLUME	564148.844	4183128.124	1.93
LOCATION	L0004035	VOLUME	564149.067	4183128.011	1.93
LOCATION	L0004036	VOLUME	564149.290	4183127.898	1.93
LOCATION	L0004037	VOLUME	564149.513	4183127.785	1.87
LOCATION	L0004038	VOLUME	564149.736	4183127.672	1.87
LOCATION	L0004039	VOLUME	564149.959	4183127.559	1.86
LOCATION	L0004040	VOLUME	564150.182	4183127.446	1.86
LOCATION	L0004041	VOLUME	564150.405	4183127.333	1.85
LOCATION	L0004042	VOLUME	564150.627	4183127.220	1.85
LOCATION	L0004043	VOLUME	564150.850	4183127.107	1.84
LOCATION	L0004044	VOLUME	564151.073	4183126.994	1.84
LOCATION	L0004045	VOLUME	564151.296	4183126.881	1.84
LOCATION	L0004046	VOLUME	564151.519	4183126.768	1.82
LOCATION	L0004047	VOLUME	564151.742	4183126.655	1.82
LOCATION	L0004048	VOLUME	564151.965	4183126.542	1.81
LOCATION	L0004049	VOLUME	564152.188	4183126.429	1.81
LOCATION	L0004050	VOLUME	564152.411	4183126.316	1.79
LOCATION	L0004051	VOLUME	564152.634	4183126.203	1.79
LOCATION	L0004052	VOLUME	564152.857	4183126.090	1.78
LOCATION	L0004053	VOLUME	564153.080	4183125.977	1.77

LOCATION	L0004054	VOLUME	564153.303	4183125.864	1.76
LOCATION	L0004055	VOLUME	564153.526	4183125.751	1.76
LOCATION	L0004056	VOLUME	564153.749	4183125.638	1.75
LOCATION	L0004057	VOLUME	564153.972	4183125.524	1.74
LOCATION	L0004058	VOLUME	564154.195	4183125.411	1.74
LOCATION	L0004059	VOLUME	564154.418	4183125.298	1.72
LOCATION	L0004060	VOLUME	564154.641	4183125.185	1.72
LOCATION	L0004061	VOLUME	564154.864	4183125.072	1.70
LOCATION	L0004062	VOLUME	564155.087	4183124.959	1.70
LOCATION	L0004063	VOLUME	564155.310	4183124.846	1.68
LOCATION	L0004064	VOLUME	564155.533	4183124.733	1.68
LOCATION	L0004065	VOLUME	564155.756	4183124.620	1.66
LOCATION	L0004066	VOLUME	564155.979	4183124.507	1.66
LOCATION	L0004067	VOLUME	564156.202	4183124.394	1.66
LOCATION	L0004068	VOLUME	564156.425	4183124.281	1.64
LOCATION	L0004069	VOLUME	564156.648	4183124.168	1.64
LOCATION	L0004070	VOLUME	564156.871	4183124.055	1.62
LOCATION	L0004071	VOLUME	564157.094	4183123.942	1.62
LOCATION	L0004072	VOLUME	564157.317	4183123.829	1.60
LOCATION	L0004073	VOLUME	564157.540	4183123.716	1.60
LOCATION	L0004074	VOLUME	564157.763	4183123.603	1.59
LOCATION	L0004075	VOLUME	564157.986	4183123.490	1.58
LOCATION	L0004076	VOLUME	564158.209	4183123.377	1.58
LOCATION	L0004077	VOLUME	564158.432	4183123.264	1.56
LOCATION	L0004078	VOLUME	564158.655	4183123.151	1.56
LOCATION	L0004079	VOLUME	564158.878	4183123.038	1.54
LOCATION	L0004080	VOLUME	564159.101	4183122.925	1.54
LOCATION	L0004081	VOLUME	564159.324	4183122.812	1.53
LOCATION	L0004082	VOLUME	564159.547	4183122.698	1.52
LOCATION	L0004083	VOLUME	564159.770	4183122.585	1.51
LOCATION	L0004084	VOLUME	564159.993	4183122.472	1.50
LOCATION	L0004085	VOLUME	564160.216	4183122.359	1.49
LOCATION	L0004086	VOLUME	564160.439	4183122.246	1.49
LOCATION	L0004087	VOLUME	564160.662	4183122.133	1.48
LOCATION	L0004088	VOLUME	564160.885	4183122.020	1.47
LOCATION	L0004089	VOLUME	564161.108	4183121.907	1.47
LOCATION	L0004090	VOLUME	564161.331	4183121.794	1.45
LOCATION	L0004091	VOLUME	564161.554	4183121.681	1.45

LOCATION	L0004092	VOLUME	564161.777	4183121.568	1.44
LOCATION	L0004093	VOLUME	564162.000	4183121.455	1.43
LOCATION	L0004094	VOLUME	564162.223	4183121.342	1.42
LOCATION	L0004095	VOLUME	564162.446	4183121.229	1.42
LOCATION	L0004096	VOLUME	564162.669	4183121.116	1.41
LOCATION	L0004097	VOLUME	564162.892	4183121.003	1.40
LOCATION	L0004098	VOLUME	564163.115	4183120.890	1.40
LOCATION	L0004099	VOLUME	564163.338	4183120.777	1.39
LOCATION	L0004100	VOLUME	564163.561	4183120.664	1.38
LOCATION	L0004101	VOLUME	564163.784	4183120.551	1.37
LOCATION	L0004102	VOLUME	564164.007	4183120.438	1.37
LOCATION	L0004103	VOLUME	564164.230	4183120.325	1.36
LOCATION	L0004104	VOLUME	564164.453	4183120.212	1.35
LOCATION	L0004105	VOLUME	564164.675	4183120.099	1.34
LOCATION	L0004106	VOLUME	564164.898	4183119.985	1.34
LOCATION	L0004107	VOLUME	564165.121	4183119.872	1.33
LOCATION	L0004108	VOLUME	564165.344	4183119.759	1.32
LOCATION	L0004109	VOLUME	564165.567	4183119.646	1.32
LOCATION	L0004110	VOLUME	564165.790	4183119.533	1.31
LOCATION	L0004111	VOLUME	564166.013	4183119.420	1.31
LOCATION	L0004112	VOLUME	564166.236	4183119.307	1.30
LOCATION	L0004113	VOLUME	564166.459	4183119.194	1.29
LOCATION	L0004114	VOLUME	564166.682	4183119.081	1.28
LOCATION	L0004115	VOLUME	564166.905	4183118.968	1.28
LOCATION	L0004116	VOLUME	564167.128	4183118.855	1.27
LOCATION	L0004117	VOLUME	564167.351	4183118.742	1.27
LOCATION	L0004118	VOLUME	564167.574	4183118.629	1.26
LOCATION	L0004119	VOLUME	564167.797	4183118.516	1.25
LOCATION	L0004120	VOLUME	564168.020	4183118.403	1.00
LOCATION	L0004121	VOLUME	564168.243	4183118.290	1.00
LOCATION	L0004122	VOLUME	564168.466	4183118.177	1.00
LOCATION	L0004123	VOLUME	564168.689	4183118.064	1.00
LOCATION	L0004124	VOLUME	564168.912	4183117.951	1.00
LOCATION	L0004125	VOLUME	564169.135	4183117.838	1.00
LOCATION	L0004126	VOLUME	564169.358	4183117.725	1.00
LOCATION	L0004127	VOLUME	564169.581	4183117.612	1.00
LOCATION	L0004128	VOLUME	564169.804	4183117.499	1.00
LOCATION	L0004129	VOLUME	564170.027	4183117.386	1.00

LOCATION	L0004130	VOLUME	564170.250	4183117.273	1.00
LOCATION	L0004131	VOLUME	564170.473	4183117.159	1.00
LOCATION	L0004132	VOLUME	564170.696	4183117.046	1.00
LOCATION	L0004133	VOLUME	564170.919	4183116.933	1.00
LOCATION	L0004134	VOLUME	564171.142	4183116.820	1.00
LOCATION	L0004135	VOLUME	564171.365	4183116.707	1.00
LOCATION	L0004136	VOLUME	564171.588	4183116.594	1.00
LOCATION	L0004137	VOLUME	564171.811	4183116.481	1.00
LOCATION	L0004138	VOLUME	564172.034	4183116.368	1.00
LOCATION	L0004139	VOLUME	564172.257	4183116.255	1.00
LOCATION	L0004140	VOLUME	564172.480	4183116.142	1.00
LOCATION	L0004141	VOLUME	564172.703	4183116.029	1.00
LOCATION	L0004142	VOLUME	564172.926	4183115.916	1.00
LOCATION	L0004143	VOLUME	564173.149	4183115.803	1.00
LOCATION	L0004144	VOLUME	564173.372	4183115.690	1.00
LOCATION	L0004145	VOLUME	564173.595	4183115.577	1.00
LOCATION	L0004146	VOLUME	564173.818	4183115.464	1.00
LOCATION	L0004147	VOLUME	564174.041	4183115.351	1.00
LOCATION	L0004148	VOLUME	564174.264	4183115.238	1.00
LOCATION	L0004149	VOLUME	564174.487	4183115.125	1.00
LOCATION	L0004150	VOLUME	564174.710	4183115.012	1.00
LOCATION	L0004151	VOLUME	564174.933	4183114.899	1.00
LOCATION	L0004152	VOLUME	564175.156	4183114.786	1.00
LOCATION	L0004153	VOLUME	564175.379	4183114.673	1.00
LOCATION	L0004154	VOLUME	564175.602	4183114.560	1.00
LOCATION	L0004155	VOLUME	564175.825	4183114.447	1.00
LOCATION	L0004156	VOLUME	564176.048	4183114.333	1.00
LOCATION	L0004157	VOLUME	564176.271	4183114.220	1.00
LOCATION	L0004158	VOLUME	564176.494	4183114.107	1.00
LOCATION	L0004159	VOLUME	564176.717	4183113.994	1.00
LOCATION	L0004160	VOLUME	564176.940	4183113.881	1.00
LOCATION	L0004161	VOLUME	564177.163	4183113.768	1.00
LOCATION	L0004162	VOLUME	564177.386	4183113.655	1.00
LOCATION	L0004163	VOLUME	564177.609	4183113.542	1.00
LOCATION	L0004164	VOLUME	564177.832	4183113.429	1.00
LOCATION	L0004165	VOLUME	564178.055	4183113.316	1.00
LOCATION	L0004166	VOLUME	564178.278	4183113.203	1.00
LOCATION	L0004167	VOLUME	564178.500	4183113.090	1.00

LOCATION	L0004168	VOLUME	564178.723	4183112.977	1.00
LOCATION	L0004169	VOLUME	564178.946	4183112.864	1.00
LOCATION	L0004170	VOLUME	564179.169	4183112.751	1.00
LOCATION	L0004171	VOLUME	564179.392	4183112.638	1.00
LOCATION	L0004172	VOLUME	564179.615	4183112.525	1.00
LOCATION	L0004173	VOLUME	564179.838	4183112.412	1.00
LOCATION	L0004174	VOLUME	564180.061	4183112.299	1.00
LOCATION	L0004175	VOLUME	564180.284	4183112.186	1.00
LOCATION	L0004176	VOLUME	564180.507	4183112.073	1.00
LOCATION	L0004177	VOLUME	564180.730	4183111.960	1.00
LOCATION	L0004178	VOLUME	564180.953	4183111.847	1.00
LOCATION	L0004179	VOLUME	564181.176	4183111.734	1.00
LOCATION	L0004180	VOLUME	564181.399	4183111.620	1.00
LOCATION	L0004181	VOLUME	564181.622	4183111.507	1.00
LOCATION	L0004182	VOLUME	564181.845	4183111.394	1.00
LOCATION	L0004183	VOLUME	564182.068	4183111.281	1.00
LOCATION	L0004184	VOLUME	564182.291	4183111.168	1.00
LOCATION	L0004185	VOLUME	564182.514	4183111.055	1.00
LOCATION	L0004186	VOLUME	564182.737	4183110.942	1.00
LOCATION	L0004187	VOLUME	564182.960	4183110.829	1.00
LOCATION	L0004188	VOLUME	564183.183	4183110.716	1.00
LOCATION	L0004189	VOLUME	564183.406	4183110.603	1.00
LOCATION	L0004190	VOLUME	564183.629	4183110.490	1.00
LOCATION	L0004191	VOLUME	564183.852	4183110.377	1.00
LOCATION	L0004192	VOLUME	564184.075	4183110.264	1.00
LOCATION	L0004193	VOLUME	564184.298	4183110.151	1.00
LOCATION	L0004194	VOLUME	564184.521	4183110.038	1.00
LOCATION	L0004195	VOLUME	564184.744	4183109.925	1.00
LOCATION	L0004196	VOLUME	564184.967	4183109.812	1.00
LOCATION	L0004197	VOLUME	564185.190	4183109.699	1.00
LOCATION	L0004198	VOLUME	564185.413	4183109.586	1.00
LOCATION	L0004199	VOLUME	564185.636	4183109.473	1.00
LOCATION	L0004200	VOLUME	564185.859	4183109.360	1.00
LOCATION	L0004201	VOLUME	564186.082	4183109.247	1.00
LOCATION	L0004202	VOLUME	564186.305	4183109.134	1.00
LOCATION	L0004203	VOLUME	564186.528	4183109.021	1.00
LOCATION	L0004204	VOLUME	564186.751	4183108.908	1.00
LOCATION	L0004205	VOLUME	564186.974	4183108.794	1.00

LOCATION	L0004206	VOLUME	564187.197	4183108.681	1.00
LOCATION	L0004207	VOLUME	564187.420	4183108.568	1.00
LOCATION	L0004208	VOLUME	564187.643	4183108.455	1.00
LOCATION	L0004209	VOLUME	564187.866	4183108.342	1.00
LOCATION	L0004210	VOLUME	564188.089	4183108.229	1.00
LOCATION	L0004211	VOLUME	564188.312	4183108.116	1.00
LOCATION	L0004212	VOLUME	564188.535	4183108.003	1.00
LOCATION	L0004213	VOLUME	564188.758	4183107.890	1.00
LOCATION	L0004214	VOLUME	564188.981	4183107.777	1.00
LOCATION	L0004215	VOLUME	564189.204	4183107.664	1.00
LOCATION	L0004216	VOLUME	564189.427	4183107.551	1.00
LOCATION	L0004217	VOLUME	564189.650	4183107.438	1.00
LOCATION	L0004218	VOLUME	564189.873	4183107.325	1.00
LOCATION	L0004219	VOLUME	564190.096	4183107.212	1.00
LOCATION	L0004220	VOLUME	564190.319	4183107.099	1.00
LOCATION	L0004221	VOLUME	564190.542	4183106.986	1.00
LOCATION	L0004222	VOLUME	564190.765	4183106.873	1.00
LOCATION	L0004223	VOLUME	564190.988	4183106.760	1.00
LOCATION	L0004224	VOLUME	564191.211	4183106.647	1.00
LOCATION	L0004225	VOLUME	564191.434	4183106.534	1.00
LOCATION	L0004226	VOLUME	564191.657	4183106.421	1.00
LOCATION	L0004227	VOLUME	564191.880	4183106.308	1.00
LOCATION	L0004228	VOLUME	564192.103	4183106.195	0.88
LOCATION	L0004229	VOLUME	564192.325	4183106.082	0.89
LOCATION	L0004230	VOLUME	564192.548	4183105.968	0.89
LOCATION	L0004231	VOLUME	564192.771	4183105.855	0.90
LOCATION	L0004232	VOLUME	564192.994	4183105.742	0.91
LOCATION	L0004233	VOLUME	564193.217	4183105.629	0.91
LOCATION	L0004234	VOLUME	564193.440	4183105.516	0.92
LOCATION	L0004235	VOLUME	564193.663	4183105.403	0.92
LOCATION	L0004236	VOLUME	564193.886	4183105.290	0.93
LOCATION	L0004237	VOLUME	564194.109	4183105.177	0.93
LOCATION	L0004238	VOLUME	564194.332	4183105.064	0.94
LOCATION	L0004239	VOLUME	564194.555	4183104.951	0.94
LOCATION	L0004240	VOLUME	564194.778	4183104.838	0.95
LOCATION	L0004241	VOLUME	564195.001	4183104.725	0.95
LOCATION	L0004242	VOLUME	564195.224	4183104.612	0.96
LOCATION	L0004243	VOLUME	564195.447	4183104.499	0.96

LOCATION	L0004244	VOLUME	564195.670	4183104.386	0.97
LOCATION	L0004245	VOLUME	564195.893	4183104.273	0.97
LOCATION	L0004246	VOLUME	564196.116	4183104.160	0.97
LOCATION	L0004247	VOLUME	564196.339	4183104.047	0.98
LOCATION	L0004248	VOLUME	564196.562	4183103.934	0.98
LOCATION	L0004249	VOLUME	564196.785	4183103.821	1.00
LOCATION	L0004250	VOLUME	564197.008	4183103.708	1.00
LOCATION	L0004251	VOLUME	564197.231	4183103.595	1.00
LOCATION	L0004252	VOLUME	564197.454	4183103.482	1.00
LOCATION	L0004253	VOLUME	564197.677	4183103.369	1.00
LOCATION	L0004254	VOLUME	564197.900	4183103.256	1.00
LOCATION	L0004255	VOLUME	564198.123	4183103.142	1.00
LOCATION	L0004256	VOLUME	564198.346	4183103.029	1.00
LOCATION	L0004257	VOLUME	564198.569	4183102.916	1.00
LOCATION	L0004258	VOLUME	564198.792	4183102.803	1.00
LOCATION	L0004259	VOLUME	564199.015	4183102.690	1.00
LOCATION	L0004260	VOLUME	564199.238	4183102.577	1.00
LOCATION	L0004261	VOLUME	564199.461	4183102.464	1.00
LOCATION	L0004262	VOLUME	564199.684	4183102.351	0.99
LOCATION	L0004263	VOLUME	564199.907	4183102.238	0.99
LOCATION	L0004264	VOLUME	564200.130	4183102.125	0.99
LOCATION	L0004265	VOLUME	564200.353	4183102.012	0.99
LOCATION	L0004266	VOLUME	564200.576	4183101.899	0.99
LOCATION	L0004267	VOLUME	564200.799	4183101.786	0.99
LOCATION	L0004268	VOLUME	564201.022	4183101.673	0.99
LOCATION	L0004269	VOLUME	564201.245	4183101.560	0.99
LOCATION	L0004270	VOLUME	564201.468	4183101.447	0.99
LOCATION	L0004271	VOLUME	564201.691	4183101.334	0.98
LOCATION	L0004272	VOLUME	564201.914	4183101.221	0.98
LOCATION	L0004273	VOLUME	564202.137	4183101.108	0.98
LOCATION	L0004274	VOLUME	564202.360	4183100.995	0.98
LOCATION	L0004275	VOLUME	564202.583	4183100.882	0.98
LOCATION	L0004276	VOLUME	564202.806	4183100.769	0.98
LOCATION	L0004277	VOLUME	564203.029	4183100.656	0.97
LOCATION	L0004278	VOLUME	564203.252	4183100.543	0.97
LOCATION	L0004279	VOLUME	564203.475	4183100.429	0.97
LOCATION	L0004280	VOLUME	564203.698	4183100.316	0.97
LOCATION	L0004281	VOLUME	564203.921	4183100.203	0.97

LOCATION	L0004282	VOLUME	564204.144	4183100.090	0.97
LOCATION	L0004283	VOLUME	564204.367	4183099.977	0.96
LOCATION	L0004284	VOLUME	564204.590	4183099.864	0.96
LOCATION	L0004285	VOLUME	564204.813	4183099.751	0.96
LOCATION	L0004286	VOLUME	564205.036	4183099.638	0.96
LOCATION	L0004287	VOLUME	564205.259	4183099.525	0.96
LOCATION	L0004288	VOLUME	564205.482	4183099.412	0.95
LOCATION	L0004289	VOLUME	564205.705	4183099.299	0.95
LOCATION	L0004290	VOLUME	564205.928	4183099.186	0.95
LOCATION	L0004291	VOLUME	564206.151	4183099.073	0.95
LOCATION	L0004292	VOLUME	564206.373	4183098.960	0.95
LOCATION	L0004293	VOLUME	564206.596	4183098.847	0.95
LOCATION	L0004294	VOLUME	564206.819	4183098.734	0.94
LOCATION	L0004295	VOLUME	564207.042	4183098.621	0.94
LOCATION	L0004296	VOLUME	564207.265	4183098.508	0.94
LOCATION	L0004297	VOLUME	564207.488	4183098.395	0.94
LOCATION	L0004298	VOLUME	564207.711	4183098.282	0.94
LOCATION	L0004299	VOLUME	564207.934	4183098.169	0.94
LOCATION	L0004300	VOLUME	564208.157	4183098.056	0.93
LOCATION	L0004301	VOLUME	564208.380	4183097.943	0.93
LOCATION	L0004302	VOLUME	564208.603	4183097.830	0.93
LOCATION	L0004303	VOLUME	564208.826	4183097.717	0.93
LOCATION	L0004304	VOLUME	564209.049	4183097.603	0.93
LOCATION	L0004305	VOLUME	564209.272	4183097.490	0.93
LOCATION	L0004306	VOLUME	564209.495	4183097.377	0.93
LOCATION	L0004307	VOLUME	564209.718	4183097.264	0.92
LOCATION	L0004308	VOLUME	564209.941	4183097.151	0.92
LOCATION	L0004309	VOLUME	564210.164	4183097.038	0.92
LOCATION	L0004310	VOLUME	564210.387	4183096.925	0.92
LOCATION	L0004311	VOLUME	564210.610	4183096.812	0.92
LOCATION	L0004312	VOLUME	564210.833	4183096.699	0.92
LOCATION	L0004313	VOLUME	564211.056	4183096.586	0.92
LOCATION	L0004314	VOLUME	564211.279	4183096.473	0.92
LOCATION	L0004315	VOLUME	564211.502	4183096.360	0.91
LOCATION	L0004316	VOLUME	564211.725	4183096.247	0.91
LOCATION	L0004317	VOLUME	564211.948	4183096.134	0.91
LOCATION	L0004318	VOLUME	564212.171	4183096.021	0.91
LOCATION	L0004319	VOLUME	564212.394	4183095.908	0.91

LOCATION	L0004320	VOLUME	564212.617	4183095.795	0.91
LOCATION	L0004321	VOLUME	564212.840	4183095.682	0.91
LOCATION	L0004322	VOLUME	564213.063	4183095.569	0.91
LOCATION	L0004323	VOLUME	564213.286	4183095.456	0.91
LOCATION	L0004324	VOLUME	564213.509	4183095.343	0.91
LOCATION	L0004325	VOLUME	564213.732	4183095.230	0.90
LOCATION	L0004326	VOLUME	564213.955	4183095.117	0.90
LOCATION	L0004327	VOLUME	564214.178	4183095.004	0.90
LOCATION	L0004328	VOLUME	564214.401	4183094.891	0.90
LOCATION	L0004329	VOLUME	564214.624	4183094.777	0.90
LOCATION	L0004330	VOLUME	564214.847	4183094.664	0.90
LOCATION	L0004331	VOLUME	564215.070	4183094.551	0.90
LOCATION	L0004332	VOLUME	564215.293	4183094.438	0.90
LOCATION	L0004333	VOLUME	564215.516	4183094.325	0.90
LOCATION	L0004334	VOLUME	564215.739	4183094.212	0.90
LOCATION	L0004335	VOLUME	564215.962	4183094.099	0.90
LOCATION	L0004336	VOLUME	564216.185	4183093.986	-0.90
LOCATION	L0004337	VOLUME	564216.408	4183093.873	-0.90
LOCATION	L0004338	VOLUME	564216.631	4183093.760	-0.90
LOCATION	L0004339	VOLUME	564216.854	4183093.647	-0.90
LOCATION	L0004340	VOLUME	564217.077	4183093.534	-0.90
LOCATION	L0004341	VOLUME	564217.300	4183093.421	-0.90
LOCATION	L0004342	VOLUME	564217.523	4183093.308	-0.90
LOCATION	L0004343	VOLUME	564217.746	4183093.195	-0.90
LOCATION	L0004344	VOLUME	564217.969	4183093.082	-0.90
LOCATION	L0004345	VOLUME	564218.192	4183092.969	-0.90
LOCATION	L0004346	VOLUME	564218.415	4183092.856	-0.90
LOCATION	L0004347	VOLUME	564218.638	4183092.743	-0.90
LOCATION	L0004348	VOLUME	564218.861	4183092.630	-0.90
LOCATION	L0004349	VOLUME	564219.084	4183092.517	-0.90
LOCATION	L0004350	VOLUME	564219.307	4183092.404	-0.90
LOCATION	L0004351	VOLUME	564219.530	4183092.291	-0.90
LOCATION	L0004352	VOLUME	564219.753	4183092.178	-0.90
LOCATION	L0004353	VOLUME	564219.976	4183092.064	-0.90
LOCATION	L0004354	VOLUME	564220.198	4183091.951	-0.90
LOCATION	L0004355	VOLUME	564220.421	4183091.838	-0.90
LOCATION	L0004356	VOLUME	564220.644	4183091.725	-0.90
LOCATION	L0004357	VOLUME	564220.867	4183091.612	-0.90

LOCATION	L0004358	VOLUME	564221.090	4183091.499	-0.90
LOCATION	L0004359	VOLUME	564221.313	4183091.386	-0.90
LOCATION	L0004360	VOLUME	564221.536	4183091.273	-0.90
LOCATION	L0004361	VOLUME	564221.759	4183091.160	-0.90
LOCATION	L0004362	VOLUME	564221.982	4183091.047	-0.90
LOCATION	L0004363	VOLUME	564222.205	4183090.934	-0.90
LOCATION	L0004364	VOLUME	564222.428	4183090.821	-0.90
LOCATION	L0004365	VOLUME	564222.651	4183090.708	-0.90
LOCATION	L0004366	VOLUME	564222.874	4183090.595	-0.90
LOCATION	L0004367	VOLUME	564223.097	4183090.482	-0.90
LOCATION	L0004368	VOLUME	564223.320	4183090.369	-0.90
LOCATION	L0004369	VOLUME	564223.543	4183090.256	-0.90
LOCATION	L0004370	VOLUME	564223.766	4183090.143	-0.90
LOCATION	L0004371	VOLUME	564223.989	4183090.030	-0.90
LOCATION	L0004372	VOLUME	564224.212	4183089.917	-0.90
LOCATION	L0004373	VOLUME	564224.435	4183089.804	-0.90
LOCATION	L0004374	VOLUME	564224.658	4183089.691	-0.90
LOCATION	L0004375	VOLUME	564224.881	4183089.578	-0.90
LOCATION	L0004376	VOLUME	564225.104	4183089.465	-0.90
LOCATION	L0004377	VOLUME	564225.327	4183089.352	-0.90
LOCATION	L0004378	VOLUME	564225.550	4183089.238	-0.90
LOCATION	L0004379	VOLUME	564225.773	4183089.125	-0.90
LOCATION	L0004380	VOLUME	564225.996	4183089.012	-0.90
LOCATION	L0004381	VOLUME	564226.219	4183088.899	-0.90
LOCATION	L0004382	VOLUME	564226.442	4183088.786	-0.90
LOCATION	L0004383	VOLUME	564226.665	4183088.673	-0.90
LOCATION	L0004384	VOLUME	564226.888	4183088.560	-0.90
LOCATION	L0004385	VOLUME	564227.111	4183088.447	-0.90
LOCATION	L0004386	VOLUME	564227.334	4183088.334	-0.90
LOCATION	L0004387	VOLUME	564227.557	4183088.221	-0.90
LOCATION	L0004388	VOLUME	564227.780	4183088.108	-0.90
LOCATION	L0004389	VOLUME	564228.003	4183087.995	-0.90
LOCATION	L0004390	VOLUME	564228.226	4183087.882	-0.89
LOCATION	L0004391	VOLUME	564228.449	4183087.769	-0.89
LOCATION	L0004392	VOLUME	564228.672	4183087.656	-0.89
LOCATION	L0004393	VOLUME	564228.895	4183087.543	-0.89
LOCATION	L0004394	VOLUME	564229.118	4183087.430	-0.89
LOCATION	L0004395	VOLUME	564229.341	4183087.317	-0.89

LOCATION	L0004396	VOLUME	564229.564	4183087.204	-0.89
LOCATION	L0004397	VOLUME	564229.787	4183087.091	-0.89
LOCATION	L0004398	VOLUME	564230.010	4183086.978	-0.89
LOCATION	L0004399	VOLUME	564230.233	4183086.865	-0.89
LOCATION	L0004400	VOLUME	564230.456	4183086.752	-0.89
LOCATION	L0004401	VOLUME	564230.679	4183086.639	-0.89
LOCATION	L0004402	VOLUME	564230.902	4183086.526	-0.89
LOCATION	L0004403	VOLUME	564231.125	4183086.412	-0.89
LOCATION	L0004404	VOLUME	564231.348	4183086.299	-0.89
LOCATION	L0004405	VOLUME	564231.571	4183086.186	-0.89
LOCATION	L0004406	VOLUME	564231.794	4183086.073	-0.88
LOCATION	L0004407	VOLUME	564232.017	4183085.960	-0.88
LOCATION	L0004408	VOLUME	564232.240	4183085.847	-0.88
LOCATION	L0004409	VOLUME	564232.463	4183085.734	-0.88
LOCATION	L0004410	VOLUME	564232.686	4183085.621	-0.88
LOCATION	L0004411	VOLUME	564232.909	4183085.508	-0.88
LOCATION	L0004412	VOLUME	564233.132	4183085.395	-0.88
LOCATION	L0004413	VOLUME	564233.355	4183085.282	-0.88
LOCATION	L0004414	VOLUME	564233.578	4183085.169	-0.88
LOCATION	L0004415	VOLUME	564233.801	4183085.056	-0.88
LOCATION	L0004416	VOLUME	564234.024	4183084.943	-0.87
LOCATION	L0004417	VOLUME	564234.246	4183084.830	-0.87
LOCATION	L0004418	VOLUME	564234.469	4183084.717	-0.87
LOCATION	L0004419	VOLUME	564234.692	4183084.604	-0.87
LOCATION	L0004420	VOLUME	564234.915	4183084.491	-0.87
LOCATION	L0004421	VOLUME	564235.138	4183084.378	-0.87
LOCATION	L0004422	VOLUME	564235.361	4183084.265	-0.87
LOCATION	L0004423	VOLUME	564235.584	4183084.152	-0.86
LOCATION	L0004424	VOLUME	564235.807	4183084.039	-0.86
LOCATION	L0004425	VOLUME	564236.030	4183083.926	-0.86
LOCATION	L0004426	VOLUME	564236.253	4183083.813	-0.86
LOCATION	L0004427	VOLUME	564236.476	4183083.699	-0.86
LOCATION	L0004428	VOLUME	564236.699	4183083.586	-0.86
LOCATION	L0004429	VOLUME	564236.922	4183083.473	-0.85
LOCATION	L0004430	VOLUME	564237.145	4183083.360	-0.85
LOCATION	L0004431	VOLUME	564237.368	4183083.247	-0.85
LOCATION	L0004432	VOLUME	564237.591	4183083.134	-0.85
LOCATION	L0004433	VOLUME	564237.814	4183083.021	-0.85

LOCATION	L0004434	VOLUME	564238.037	4183082.908	-0.84
LOCATION	L0004435	VOLUME	564238.260	4183082.795	-0.84
LOCATION	L0004436	VOLUME	564238.483	4183082.682	-0.84
LOCATION	L0004437	VOLUME	564238.706	4183082.569	-0.84
LOCATION	L0004438	VOLUME	564238.929	4183082.456	-0.84
LOCATION	L0004439	VOLUME	564239.152	4183082.343	-0.83
LOCATION	L0004440	VOLUME	564239.375	4183082.230	-0.83
LOCATION	L0004441	VOLUME	564239.598	4183082.117	-0.83
LOCATION	L0004442	VOLUME	564239.821	4183082.004	-0.83
LOCATION	L0004443	VOLUME	564240.044	4183081.891	-0.73
LOCATION	L0004444	VOLUME	564240.267	4183081.778	-0.75
LOCATION	L0004445	VOLUME	564240.490	4183081.665	-0.75
LOCATION	L0004446	VOLUME	564240.713	4183081.552	-0.76
LOCATION	L0004447	VOLUME	564240.936	4183081.439	-0.77
LOCATION	L0004448	VOLUME	564241.159	4183081.326	-0.78
LOCATION	L0004449	VOLUME	564241.382	4183081.213	-0.79
LOCATION	L0004450	VOLUME	564241.605	4183081.100	-0.80
LOCATION	L0004451	VOLUME	564241.828	4183080.987	-0.81
LOCATION	L0004452	VOLUME	564242.051	4183080.873	-0.82
LOCATION	L0004453	VOLUME	564242.274	4183080.760	-0.82
LOCATION	L0004454	VOLUME	564242.497	4183080.647	-0.83
LOCATION	L0004455	VOLUME	564242.720	4183080.534	-0.84
LOCATION	L0004456	VOLUME	564242.943	4183080.421	-0.85
LOCATION	L0004457	VOLUME	564243.166	4183080.308	-0.86
LOCATION	L0004458	VOLUME	564243.389	4183080.195	-0.86
LOCATION	L0004459	VOLUME	564243.612	4183080.082	-0.88
LOCATION	L0004460	VOLUME	564243.835	4183079.969	-0.88
LOCATION	L0004461	VOLUME	564244.058	4183079.856	-0.84
LOCATION	L0004462	VOLUME	564244.281	4183079.743	-0.85
LOCATION	L0004463	VOLUME	564244.504	4183079.630	-0.85
LOCATION	L0004464	VOLUME	564244.727	4183079.517	-0.86
LOCATION	L0004465	VOLUME	564244.950	4183079.404	-0.86
LOCATION	L0004466	VOLUME	564245.173	4183079.291	-0.87
LOCATION	L0004467	VOLUME	564245.396	4183079.178	-0.88
LOCATION	L0004468	VOLUME	564245.619	4183079.065	-0.89
LOCATION	L0004469	VOLUME	564245.842	4183078.952	-0.89
LOCATION	L0004470	VOLUME	564246.065	4183078.839	-0.90
LOCATION	L0004471	VOLUME	564246.288	4183078.726	-0.90

LOCATION	L0004472	VOLUME	564246.511	4183078.613	-0.91
LOCATION	L0004473	VOLUME	564246.734	4183078.500	-0.91
LOCATION	L0004474	VOLUME	564246.957	4183078.387	-0.92
LOCATION	L0004475	VOLUME	564247.180	4183078.274	-0.93
LOCATION	L0004476	VOLUME	564247.403	4183078.161	-0.93
LOCATION	L0004477	VOLUME	564247.626	4183078.047	-0.93
LOCATION	L0004478	VOLUME	564247.849	4183077.934	-0.93
LOCATION	L0004479	VOLUME	564248.071	4183077.821	-0.94
LOCATION	L0004480	VOLUME	564248.294	4183077.708	-0.94
LOCATION	L0004481	VOLUME	564248.517	4183077.595	-0.95
LOCATION	L0004482	VOLUME	564248.740	4183077.482	-0.94
LOCATION	L0004483	VOLUME	564248.963	4183077.369	-0.95
LOCATION	L0004484	VOLUME	564249.186	4183077.256	-0.94
LOCATION	L0004485	VOLUME	564249.409	4183077.143	-0.94
LOCATION	L0004486	VOLUME	564249.632	4183077.030	-0.94
LOCATION	L0004487	VOLUME	564249.855	4183076.917	-0.93
LOCATION	L0004488	VOLUME	564250.078	4183076.804	-0.94
LOCATION	L0004489	VOLUME	564250.301	4183076.691	-0.93
LOCATION	L0004490	VOLUME	564250.524	4183076.578	-0.93
LOCATION	L0004491	VOLUME	564250.747	4183076.465	-0.92
LOCATION	L0004492	VOLUME	564250.970	4183076.352	-0.91
LOCATION	L0004493	VOLUME	564251.193	4183076.239	-0.90
LOCATION	L0004494	VOLUME	564251.416	4183076.126	-0.89
LOCATION	L0004495	VOLUME	564251.639	4183076.013	-0.88
LOCATION	L0004496	VOLUME	564251.862	4183075.900	-0.86
LOCATION	L0004497	VOLUME	564252.085	4183075.787	-0.86
LOCATION	L0004498	VOLUME	564252.308	4183075.674	-0.84
LOCATION	L0004499	VOLUME	564252.531	4183075.561	-0.83
LOCATION	L0004500	VOLUME	564252.754	4183075.448	-0.81
LOCATION	L0004501	VOLUME	564252.977	4183075.335	-0.79
LOCATION	L0004502	VOLUME	564253.200	4183075.221	-0.77
LOCATION	L0004503	VOLUME	564253.423	4183075.108	-0.75
LOCATION	L0004504	VOLUME	564253.646	4183074.995	-0.73
LOCATION	L0004505	VOLUME	564253.869	4183074.882	-0.70
LOCATION	L0004506	VOLUME	564254.092	4183074.769	-0.68
LOCATION	L0004507	VOLUME	564254.315	4183074.656	-0.65
LOCATION	L0004508	VOLUME	564254.538	4183074.543	-0.62
LOCATION	L0004509	VOLUME	564254.761	4183074.430	-0.60

LOCATION	L0004510	VOLUME	564254.984	4183074.317	-0.56
LOCATION	L0004511	VOLUME	564255.207	4183074.204	-0.54
LOCATION	L0004512	VOLUME	564255.430	4183074.091	-0.50
LOCATION	L0004513	VOLUME	564255.653	4183073.978	-0.47
LOCATION	L0004514	VOLUME	564255.876	4183073.865	-0.43
LOCATION	L0004515	VOLUME	564256.099	4183073.752	-0.39
LOCATION	L0004516	VOLUME	564256.322	4183073.639	-0.36
LOCATION	L0004517	VOLUME	564256.545	4183073.526	-0.32
LOCATION	L0004518	VOLUME	564256.768	4183073.413	-0.28
LOCATION	L0004519	VOLUME	564256.991	4183073.300	-0.24
LOCATION	L0004520	VOLUME	564257.214	4183073.187	-0.20
LOCATION	L0004521	VOLUME	564257.437	4183073.074	-0.16
LOCATION	L0004522	VOLUME	564257.660	4183072.961	-0.11
LOCATION	L0004523	VOLUME	564257.883	4183072.848	-0.07
LOCATION	L0004524	VOLUME	564258.106	4183072.735	-0.02
LOCATION	L0004525	VOLUME	564258.329	4183072.622	0.02
LOCATION	L0004526	VOLUME	564258.552	4183072.508	0.06
LOCATION	L0004527	VOLUME	564258.775	4183072.395	0.10
LOCATION	L0004528	VOLUME	564258.998	4183072.282	0.15
LOCATION	L0004529	VOLUME	564259.221	4183072.169	0.21
LOCATION	L0004530	VOLUME	564259.444	4183072.056	0.24
LOCATION	L0004531	VOLUME	564259.667	4183071.943	0.30
LOCATION	L0004532	VOLUME	564259.890	4183071.830	0.33
LOCATION	L0004533	VOLUME	564260.113	4183071.717	0.39
LOCATION	L0004534	VOLUME	564260.336	4183071.604	0.42
LOCATION	L0004535	VOLUME	564260.559	4183071.491	0.48
LOCATION	L0004536	VOLUME	564260.782	4183071.378	0.53
LOCATION	L0004537	VOLUME	564261.005	4183071.265	0.56
LOCATION	L0004538	VOLUME	564261.228	4183071.152	0.62
LOCATION	L0004539	VOLUME	564261.451	4183071.039	0.65
LOCATION	L0004540	VOLUME	564261.674	4183070.926	0.70
LOCATION	L0004541	VOLUME	564261.896	4183070.813	0.73
LOCATION	L0004542	VOLUME	564262.119	4183070.700	0.78
LOCATION	L0004543	VOLUME	564262.342	4183070.587	0.81
LOCATION	L0004544	VOLUME	564262.565	4183070.474	0.86
LOCATION	L0004545	VOLUME	564262.788	4183070.361	0.90
LOCATION	L0004546	VOLUME	564263.011	4183070.248	0.93
LOCATION	L0004547	VOLUME	564263.234	4183070.135	0.98

LOCATION	L0004548	VOLUME	564263.457	4183070.022	1.00
LOCATION	L0004549	VOLUME	564263.680	4183069.909	1.05
LOCATION	L0004550	VOLUME	564263.903	4183069.796	1.07
LOCATION	L0004551	VOLUME	564264.126	4183069.682	1.43
LOCATION	L0004552	VOLUME	564264.349	4183069.569	1.46
LOCATION	L0004553	VOLUME	564264.572	4183069.456	1.48
LOCATION	L0004554	VOLUME	564264.795	4183069.343	1.50
LOCATION	L0004555	VOLUME	564265.018	4183069.230	1.53
LOCATION	L0004556	VOLUME	564265.241	4183069.117	1.55
LOCATION	L0004557	VOLUME	564265.464	4183069.004	1.57
LOCATION	L0004558	VOLUME	564265.687	4183068.891	1.59
LOCATION	L0004559	VOLUME	564265.910	4183068.778	1.61
LOCATION	L0004560	VOLUME	564266.133	4183068.665	1.62
LOCATION	L0004561	VOLUME	564266.356	4183068.552	1.64
LOCATION	L0004562	VOLUME	564266.579	4183068.439	1.65
LOCATION	L0004563	VOLUME	564266.802	4183068.326	1.67
LOCATION	L0004564	VOLUME	564267.025	4183068.213	1.68
LOCATION	L0004565	VOLUME	564267.248	4183068.100	1.69
LOCATION	L0004566	VOLUME	564267.471	4183067.987	1.71
LOCATION	L0004567	VOLUME	564267.694	4183067.874	1.71
LOCATION	L0004568	VOLUME	564267.917	4183067.761	1.73
LOCATION	L0004569	VOLUME	564268.140	4183067.648	1.74
LOCATION	L0004570	VOLUME	564268.363	4183067.535	1.74
LOCATION	L0004571	VOLUME	564268.586	4183067.422	1.75
LOCATION	L0004572	VOLUME	564268.809	4183067.309	1.76
LOCATION	L0004573	VOLUME	564269.032	4183067.196	1.77
LOCATION	L0004574	VOLUME	564269.255	4183067.083	1.77
LOCATION	L0004575	VOLUME	564269.478	4183066.970	1.78
LOCATION	L0004576	VOLUME	564269.701	4183066.856	1.78
LOCATION	L0004577	VOLUME	564269.939	4183066.782	1.79
LOCATION	L0004578	VOLUME	564270.179	4183066.710	1.80
LOCATION	L0004579	VOLUME	564270.418	4183066.638	1.81
LOCATION	L0004580	VOLUME	564270.658	4183066.566	1.81
LOCATION	L0004581	VOLUME	564270.897	4183066.495	1.81
LOCATION	L0004582	VOLUME	564271.137	4183066.423	1.82
LOCATION	L0004583	VOLUME	564271.376	4183066.351	1.82
LOCATION	L0004584	VOLUME	564271.616	4183066.279	1.83
LOCATION	L0004585	VOLUME	564271.855	4183066.207	1.84

LOCATION	L0004586	VOLUME	564272.094	4183066.135	1.84
LOCATION	L0004587	VOLUME	564272.334	4183066.064	1.84
LOCATION	L0004588	VOLUME	564272.573	4183065.992	1.85
LOCATION	L0004589	VOLUME	564272.813	4183065.920	1.85
LOCATION	L0004590	VOLUME	564273.052	4183065.848	1.85
LOCATION	L0004591	VOLUME	564273.292	4183065.776	1.86
LOCATION	L0004592	VOLUME	564273.531	4183065.704	1.86
LOCATION	L0004593	VOLUME	564273.771	4183065.633	1.87
LOCATION	L0004594	VOLUME	564274.010	4183065.561	1.87
LOCATION	L0004595	VOLUME	564274.250	4183065.489	1.87
LOCATION	L0004596	VOLUME	564274.489	4183065.417	1.88
LOCATION	L0004597	VOLUME	564274.728	4183065.345	1.88
LOCATION	L0004598	VOLUME	564274.968	4183065.273	1.88
LOCATION	L0004599	VOLUME	564275.207	4183065.202	1.88
LOCATION	L0004600	VOLUME	564275.447	4183065.130	1.89
LOCATION	L0004601	VOLUME	564275.686	4183065.058	1.89
LOCATION	L0004602	VOLUME	564275.926	4183064.986	1.90
LOCATION	L0004603	VOLUME	564276.165	4183064.914	1.90
LOCATION	L0004604	VOLUME	564276.405	4183064.842	1.90
LOCATION	L0004605	VOLUME	564276.644	4183064.771	1.91
LOCATION	L0004606	VOLUME	564276.884	4183064.699	1.91
LOCATION	L0004607	VOLUME	564277.123	4183064.627	1.92
LOCATION	L0004608	VOLUME	564277.362	4183064.555	1.92
LOCATION	L0004609	VOLUME	564277.602	4183064.483	1.93
LOCATION	L0004610	VOLUME	564277.841	4183064.411	1.93
LOCATION	L0004611	VOLUME	564278.081	4183064.340	1.94
LOCATION	L0004612	VOLUME	564278.320	4183064.268	1.94
LOCATION	L0004613	VOLUME	564278.560	4183064.196	1.95
LOCATION	L0004614	VOLUME	564278.799	4183064.124	1.95
LOCATION	L0004615	VOLUME	564279.039	4183064.052	1.96
LOCATION	L0004616	VOLUME	564279.278	4183063.980	1.97
LOCATION	L0004617	VOLUME	564279.518	4183063.908	1.97
LOCATION	L0004618	VOLUME	564279.757	4183063.837	1.98
LOCATION	L0004619	VOLUME	564279.997	4183063.765	1.99
LOCATION	L0004620	VOLUME	564280.236	4183063.693	1.99
LOCATION	L0004621	VOLUME	564280.475	4183063.621	2.00
LOCATION	L0004622	VOLUME	564280.715	4183063.549	2.01
LOCATION	L0004623	VOLUME	564280.954	4183063.477	2.01

LOCATION	L0004624	VOLUME	564281.194	4183063.406	2.02
LOCATION	L0004625	VOLUME	564281.433	4183063.334	2.03
LOCATION	L0004626	VOLUME	564281.673	4183063.262	2.04
LOCATION	L0004627	VOLUME	564281.912	4183063.190	2.05
LOCATION	L0004628	VOLUME	564282.152	4183063.118	2.05
LOCATION	L0004629	VOLUME	564282.391	4183063.046	2.06
LOCATION	L0004630	VOLUME	564282.631	4183062.975	2.07
LOCATION	L0004631	VOLUME	564282.870	4183062.903	2.08
LOCATION	L0004632	VOLUME	564283.109	4183062.831	2.08
LOCATION	L0004633	VOLUME	564283.349	4183062.759	2.09
LOCATION	L0004634	VOLUME	564283.588	4183062.687	2.10
LOCATION	L0004635	VOLUME	564283.828	4183062.615	2.11
LOCATION	L0004636	VOLUME	564284.067	4183062.544	2.12
LOCATION	L0004637	VOLUME	564284.307	4183062.472	2.13
LOCATION	L0004638	VOLUME	564284.546	4183062.400	2.14
LOCATION	L0004639	VOLUME	564284.786	4183062.328	2.14
LOCATION	L0004640	VOLUME	564285.025	4183062.256	2.15
LOCATION	L0004641	VOLUME	564285.265	4183062.184	2.16
LOCATION	L0004642	VOLUME	564285.504	4183062.113	2.17
LOCATION	L0004643	VOLUME	564285.743	4183062.041	2.18
LOCATION	L0004644	VOLUME	564285.983	4183061.969	2.19
LOCATION	L0004645	VOLUME	564286.222	4183061.897	2.20
LOCATION	L0004646	VOLUME	564286.462	4183061.825	2.20
LOCATION	L0004647	VOLUME	564286.701	4183061.753	2.21
LOCATION	L0004648	VOLUME	564286.941	4183061.682	2.22
LOCATION	L0004649	VOLUME	564287.180	4183061.610	2.22
LOCATION	L0004650	VOLUME	564287.420	4183061.538	2.23
LOCATION	L0004651	VOLUME	564287.659	4183061.466	2.24
LOCATION	L0004652	VOLUME	564287.899	4183061.394	2.25
LOCATION	L0004653	VOLUME	564288.138	4183061.322	3.30
LOCATION	L0004654	VOLUME	564288.377	4183061.251	3.31
LOCATION	L0004655	VOLUME	564288.617	4183061.179	3.32
LOCATION	L0004656	VOLUME	564288.856	4183061.107	3.35
LOCATION	L0004657	VOLUME	564289.096	4183061.035	3.36
LOCATION	L0004658	VOLUME	564289.335	4183060.963	3.36
LOCATION	L0004659	VOLUME	564289.575	4183060.891	3.37
LOCATION	L0004660	VOLUME	564289.814	4183060.820	3.40
LOCATION	L0004661	VOLUME	564290.054	4183060.748	3.41

LOCATION	L0004662	VOLUME	564290.293	4183060.676	3.41
LOCATION	L0004663	VOLUME	564290.533	4183060.604	3.44
LOCATION	L0004664	VOLUME	564290.772	4183060.532	3.45
LOCATION	L0004665	VOLUME	564291.012	4183060.460	3.46
LOCATION	L0004666	VOLUME	564291.251	4183060.388	3.46
LOCATION	L0004667	VOLUME	564291.490	4183060.317	3.49
LOCATION	L0004668	VOLUME	564291.730	4183060.245	3.50
LOCATION	L0004669	VOLUME	564291.969	4183060.173	3.50
LOCATION	L0004670	VOLUME	564292.209	4183060.101	3.53
LOCATION	L0004671	VOLUME	564292.448	4183060.029	3.54
LOCATION	L0004672	VOLUME	564292.688	4183059.957	3.54
LOCATION	L0004673	VOLUME	564292.927	4183059.886	3.55
LOCATION	L0004674	VOLUME	564293.167	4183059.814	3.58
LOCATION	L0004675	VOLUME	564293.406	4183059.742	3.58
LOCATION	L0004676	VOLUME	564293.646	4183059.670	3.59
LOCATION	L0004677	VOLUME	564293.885	4183059.598	3.62
LOCATION	L0004678	VOLUME	564294.124	4183059.526	3.62
LOCATION	L0004679	VOLUME	564294.364	4183059.455	3.62
LOCATION	L0004680	VOLUME	564294.603	4183059.383	3.63
LOCATION	L0004681	VOLUME	564294.843	4183059.311	3.66
LOCATION	L0004682	VOLUME	564295.082	4183059.239	3.66
LOCATION	L0004683	VOLUME	564295.322	4183059.167	3.67
LOCATION	L0004684	VOLUME	564295.561	4183059.095	3.70
LOCATION	L0004685	VOLUME	564295.801	4183059.024	3.70
LOCATION	L0004686	VOLUME	564296.040	4183058.952	3.70
LOCATION	L0004687	VOLUME	564296.280	4183058.880	3.70
LOCATION	L0004688	VOLUME	564296.519	4183058.808	3.74
LOCATION	L0004689	VOLUME	564296.758	4183058.736	3.74
LOCATION	L0004690	VOLUME	564296.998	4183058.664	3.74
LOCATION	L0004691	VOLUME	564297.237	4183058.593	3.77
LOCATION	L0004692	VOLUME	564297.477	4183058.521	3.77
LOCATION	L0004693	VOLUME	564297.716	4183058.449	3.77
LOCATION	L0004694	VOLUME	564297.956	4183058.377	3.77
LOCATION	L0004695	VOLUME	564298.195	4183058.305	3.80
LOCATION	L0004696	VOLUME	564298.435	4183058.233	3.80
LOCATION	L0004697	VOLUME	564298.674	4183058.162	3.80
LOCATION	L0004698	VOLUME	564298.914	4183058.090	3.83
LOCATION	L0004699	VOLUME	564299.153	4183058.018	3.83

LOCATION	L0004700	VOLUME	564299.392	4183057.946	3.83
LOCATION	L0004701	VOLUME	564299.632	4183057.874	3.86
LOCATION	L0004702	VOLUME	564299.871	4183057.802	3.86
LOCATION	L0004703	VOLUME	564300.111	4183057.731	3.86
LOCATION	L0004704	VOLUME	564300.350	4183057.659	3.85
LOCATION	L0004705	VOLUME	564300.590	4183057.587	3.88
LOCATION	L0004706	VOLUME	564300.829	4183057.515	3.88
LOCATION	L0004707	VOLUME	564301.069	4183057.443	3.87
LOCATION	L0004708	VOLUME	564301.308	4183057.371	3.90
LOCATION	L0004709	VOLUME	564301.548	4183057.299	3.89
LOCATION	L0004710	VOLUME	564301.787	4183057.228	3.89
LOCATION	L0004711	VOLUME	564302.027	4183057.156	3.89
LOCATION	L0004712	VOLUME	564302.266	4183057.084	3.91
LOCATION	L0004713	VOLUME	564302.505	4183057.012	3.90
LOCATION	L0004714	VOLUME	564302.745	4183056.940	3.90
LOCATION	L0004715	VOLUME	564302.984	4183056.868	3.92
LOCATION	L0004716	VOLUME	564303.224	4183056.797	3.91
LOCATION	L0004717	VOLUME	564303.463	4183056.725	3.91
LOCATION	L0004718	VOLUME	564303.703	4183056.653	3.90
LOCATION	L0004719	VOLUME	564303.942	4183056.581	3.92
LOCATION	L0004720	VOLUME	564304.182	4183056.509	3.91
LOCATION	L0004721	VOLUME	564304.421	4183056.437	3.91
LOCATION	L0004722	VOLUME	564304.661	4183056.366	3.92
LOCATION	L0004723	VOLUME	564304.900	4183056.294	3.92
LOCATION	L0004724	VOLUME	564305.139	4183056.222	3.91
LOCATION	L0004725	VOLUME	564305.379	4183056.150	3.90
LOCATION	L0004726	VOLUME	564305.618	4183056.078	3.92
LOCATION	L0004727	VOLUME	564305.858	4183056.006	3.91
LOCATION	L0004728	VOLUME	564306.097	4183055.935	3.90
LOCATION	L0004729	VOLUME	564306.337	4183055.863	4.40
LOCATION	L0004730	VOLUME	564306.576	4183055.791	4.40
LOCATION	L0004731	VOLUME	564306.816	4183055.719	4.39
LOCATION	L0004732	VOLUME	564307.055	4183055.647	4.38
LOCATION	L0004733	VOLUME	564307.295	4183055.575	4.38
LOCATION	L0004734	VOLUME	564307.534	4183055.504	4.37
LOCATION	L0004735	VOLUME	564307.773	4183055.432	4.37
LOCATION	L0004736	VOLUME	564308.013	4183055.360	4.37
LOCATION	L0004737	VOLUME	564308.252	4183055.288	4.36

LOCATION	L0004738	VOLUME	564308.492	4183055.216	4.35
LOCATION	L0004739	VOLUME	564308.731	4183055.144	4.34
LOCATION	L0004740	VOLUME	564308.971	4183055.073	4.34
LOCATION	L0004741	VOLUME	564309.210	4183055.001	4.33
LOCATION	L0004742	VOLUME	564309.450	4183054.929	4.33
LOCATION	L0004743	VOLUME	564309.689	4183054.857	4.32
LOCATION	L0004744	VOLUME	564309.929	4183054.785	4.31
LOCATION	L0004745	VOLUME	564310.168	4183054.713	4.31
LOCATION	L0004746	VOLUME	564310.407	4183054.642	4.30
LOCATION	L0004747	VOLUME	564310.647	4183054.570	4.29
LOCATION	L0004748	VOLUME	564310.886	4183054.498	4.29
LOCATION	L0004749	VOLUME	564311.126	4183054.426	4.28
LOCATION	L0004750	VOLUME	564311.365	4183054.354	4.27
LOCATION	L0004751	VOLUME	564311.605	4183054.282	4.26
LOCATION	L0004752	VOLUME	564311.844	4183054.211	4.26
LOCATION	L0004753	VOLUME	564312.084	4183054.139	4.21
LOCATION	L0004754	VOLUME	564312.323	4183054.067	4.20
LOCATION	L0004755	VOLUME	564312.563	4183053.995	4.19
LOCATION	L0004756	VOLUME	564312.802	4183053.923	4.17
LOCATION	L0004757	VOLUME	564313.042	4183053.851	4.17
LOCATION	L0004758	VOLUME	564313.281	4183053.779	4.16
LOCATION	L0004759	VOLUME	564313.520	4183053.708	4.15
LOCATION	L0004760	VOLUME	564313.760	4183053.636	4.14
LOCATION	L0004761	VOLUME	564313.999	4183053.564	4.13
LOCATION	L0004762	VOLUME	564314.239	4183053.492	4.12
LOCATION	L0004763	VOLUME	564314.478	4183053.420	4.11
LOCATION	L0004764	VOLUME	564314.718	4183053.348	4.10
LOCATION	L0004765	VOLUME	564314.957	4183053.277	4.10
LOCATION	L0004766	VOLUME	564315.197	4183053.205	4.09
LOCATION	L0004767	VOLUME	564315.436	4183053.133	4.08
LOCATION	L0004768	VOLUME	564315.676	4183053.061	4.07
LOCATION	L0004769	VOLUME	564315.915	4183052.989	4.07
LOCATION	L0004770	VOLUME	564316.154	4183052.917	4.06
LOCATION	L0004771	VOLUME	564316.394	4183052.846	4.05
LOCATION	L0004772	VOLUME	564316.633	4183052.774	4.05
LOCATION	L0004773	VOLUME	564316.873	4183052.702	4.04
LOCATION	L0004774	VOLUME	564317.112	4183052.630	4.03
LOCATION	L0004775	VOLUME	564317.352	4183052.558	4.03

LOCATION	L0004776	VOLUME	564317.591	4183052.486	4.02
LOCATION	L0004777	VOLUME	564317.831	4183052.415	4.02
LOCATION	L0004778	VOLUME	564318.070	4183052.343	4.01
LOCATION	L0004779	VOLUME	564318.310	4183052.271	4.01
LOCATION	L0004780	VOLUME	564318.549	4183052.199	4.01
LOCATION	L0004781	VOLUME	564318.788	4183052.127	4.00
LOCATION	L0004782	VOLUME	564319.028	4183052.055	4.00
LOCATION	L0004783	VOLUME	564319.267	4183051.984	3.99
LOCATION	L0004784	VOLUME	564319.507	4183051.912	3.99
LOCATION	L0004785	VOLUME	564319.746	4183051.840	3.99
LOCATION	L0004786	VOLUME	564319.986	4183051.768	3.98
LOCATION	L0004787	VOLUME	564320.225	4183051.696	3.98
LOCATION	L0004788	VOLUME	564320.465	4183051.624	3.98
LOCATION	L0004789	VOLUME	564320.704	4183051.553	3.97
LOCATION	L0004790	VOLUME	564320.944	4183051.481	3.97
LOCATION	L0004791	VOLUME	564321.183	4183051.409	3.97
LOCATION	L0004792	VOLUME	564321.422	4183051.337	3.97
LOCATION	L0004793	VOLUME	564321.662	4183051.265	3.96
LOCATION	L0004794	VOLUME	564321.901	4183051.193	3.96
LOCATION	L0004795	VOLUME	564322.141	4183051.122	3.96
LOCATION	L0004796	VOLUME	564322.380	4183051.050	3.95
LOCATION	L0004797	VOLUME	564322.620	4183050.978	3.95
LOCATION	L0004798	VOLUME	564322.859	4183050.906	3.95
LOCATION	L0004799	VOLUME	564323.099	4183050.834	3.94
LOCATION	L0004800	VOLUME	564323.338	4183050.762	3.94
LOCATION	L0004801	VOLUME	564323.578	4183050.690	3.94
LOCATION	L0004802	VOLUME	564323.817	4183050.619	3.93
LOCATION	L0004803	VOLUME	564324.057	4183050.547	3.93
LOCATION	L0004804	VOLUME	564324.296	4183050.475	3.92
LOCATION	L0004805	VOLUME	564324.535	4183050.403	3.92
LOCATION	L0004806	VOLUME	564324.775	4183050.331	3.92
LOCATION	L0004807	VOLUME	564325.014	4183050.259	3.91
LOCATION	L0004808	VOLUME	564325.254	4183050.188	3.90
LOCATION	L0004809	VOLUME	564325.493	4183050.116	3.90
LOCATION	L0004810	VOLUME	564325.733	4183050.044	3.89
LOCATION	L0004811	VOLUME	564325.972	4183049.972	3.88
LOCATION	L0004812	VOLUME	564326.212	4183049.900	3.87
LOCATION	L0004813	VOLUME	564326.451	4183049.828	3.87

LOCATION	L0004814	VOLUME	564326.691	4183049.757	3.86
LOCATION	L0004815	VOLUME	564326.930	4183049.685	3.85
LOCATION	L0004816	VOLUME	564327.169	4183049.613	3.84
LOCATION	L0004817	VOLUME	564327.409	4183049.541	3.82
LOCATION	L0004818	VOLUME	564327.648	4183049.469	3.81
LOCATION	L0004819	VOLUME	564327.888	4183049.397	3.80
LOCATION	L0004820	VOLUME	564328.127	4183049.326	3.79
LOCATION	L0004821	VOLUME	564328.367	4183049.254	3.77
LOCATION	L0004822	VOLUME	564328.606	4183049.182	3.76
LOCATION	L0004823	VOLUME	564328.846	4183049.110	3.74
LOCATION	L0004824	VOLUME	564329.085	4183049.038	3.73
LOCATION	L0004825	VOLUME	564329.325	4183048.966	3.71
LOCATION	L0004826	VOLUME	564329.564	4183048.895	3.69
LOCATION	L0004827	VOLUME	564329.803	4183048.823	3.67
LOCATION	L0004828	VOLUME	564330.043	4183048.751	3.65
LOCATION	L0004829	VOLUME	564330.282	4183048.679	3.62
LOCATION	L0004830	VOLUME	564330.522	4183048.607	3.61
LOCATION	L0004831	VOLUME	564330.761	4183048.535	3.58
LOCATION	L0004832	VOLUME	564331.001	4183048.464	3.56
LOCATION	L0004833	VOLUME	564331.240	4183048.392	3.53
LOCATION	L0004834	VOLUME	564331.480	4183048.320	3.50
LOCATION	L0004835	VOLUME	564331.719	4183048.248	3.48
LOCATION	L0004836	VOLUME	564331.959	4183048.176	3.45
LOCATION	L0004837	VOLUME	564332.198	4183048.104	3.42
LOCATION	L0004838	VOLUME	564332.437	4183048.033	3.39
LOCATION	L0004839	VOLUME	564332.677	4183047.961	3.36
LOCATION	L0004840	VOLUME	564332.916	4183047.889	3.33
LOCATION	L0004841	VOLUME	564333.156	4183047.817	3.30
LOCATION	L0004842	VOLUME	564333.395	4183047.745	3.27
LOCATION	L0004843	VOLUME	564333.635	4183047.673	3.23
LOCATION	L0004844	VOLUME	564333.874	4183047.602	3.20
LOCATION	L0004845	VOLUME	564334.114	4183047.530	3.16
LOCATION	L0004846	VOLUME	564334.353	4183047.458	3.12
LOCATION	L0004847	VOLUME	564334.593	4183047.386	3.10
LOCATION	L0004848	VOLUME	564334.832	4183047.314	3.06
LOCATION	L0004849	VOLUME	564335.072	4183047.242	3.02
LOCATION	L0004850	VOLUME	564335.311	4183047.170	2.98
LOCATION	L0004851	VOLUME	564335.550	4183047.099	2.94

LOCATION	L0004852	VOLUME	564335.790	4183047.027	2.90
LOCATION	L0004853	VOLUME	564336.029	4183046.955	2.64
LOCATION	L0004854	VOLUME	564336.269	4183046.883	2.61
LOCATION	L0004855	VOLUME	564336.508	4183046.811	2.58
LOCATION	L0004856	VOLUME	564336.748	4183046.739	2.55
LOCATION	L0004857	VOLUME	564336.987	4183046.668	2.52
LOCATION	L0004858	VOLUME	564337.227	4183046.596	2.48
LOCATION	L0004859	VOLUME	564337.466	4183046.524	2.46
LOCATION	L0004860	VOLUME	564337.706	4183046.452	2.44
LOCATION	L0004861	VOLUME	564337.945	4183046.380	2.41
LOCATION	L0004862	VOLUME	564338.184	4183046.308	2.38
LOCATION	L0004863	VOLUME	564338.424	4183046.237	2.35
LOCATION	L0004864	VOLUME	564338.663	4183046.165	2.33
LOCATION	L0004865	VOLUME	564338.903	4183046.093	2.31
LOCATION	L0004866	VOLUME	564339.142	4183046.021	2.29
LOCATION	L0004867	VOLUME	564339.382	4183045.949	2.27
LOCATION	L0004868	VOLUME	564339.621	4183045.877	2.24
LOCATION	L0004869	VOLUME	564339.861	4183045.806	2.22
LOCATION	L0004870	VOLUME	564340.100	4183045.734	2.20
LOCATION	L0004871	VOLUME	564340.340	4183045.662	2.19
LOCATION	L0004872	VOLUME	564340.579	4183045.590	2.17
LOCATION	L0004873	VOLUME	564340.818	4183045.518	2.15
LOCATION	L0004874	VOLUME	564341.058	4183045.446	2.14
LOCATION	L0004875	VOLUME	564341.297	4183045.375	2.12
LOCATION	L0004876	VOLUME	564341.537	4183045.303	2.11
LOCATION	L0004877	VOLUME	564341.776	4183045.231	2.10
LOCATION	L0004878	VOLUME	564342.016	4183045.159	2.09
LOCATION	L0004879	VOLUME	564342.255	4183045.087	2.07
LOCATION	L0004880	VOLUME	564342.495	4183045.015	2.06
LOCATION	L0004881	VOLUME	564342.734	4183044.944	2.05
LOCATION	L0004882	VOLUME	564342.974	4183044.872	2.04
LOCATION	L0004883	VOLUME	564343.213	4183044.800	2.04
LOCATION	L0004884	VOLUME	564343.452	4183044.728	2.03
LOCATION	L0004885	VOLUME	564343.692	4183044.656	2.03
LOCATION	L0004886	VOLUME	564343.931	4183044.584	2.02
LOCATION	L0004887	VOLUME	564344.171	4183044.513	2.01
LOCATION	L0004888	VOLUME	564344.410	4183044.441	2.01
LOCATION	L0004889	VOLUME	564344.650	4183044.369	2.01

LOCATION	L0004890	VOLUME	564344.889	4183044.297	2.01
LOCATION	L0004891	VOLUME	564345.129	4183044.225	2.00
LOCATION	L0004892	VOLUME	564345.368	4183044.153	2.00
LOCATION	L0004893	VOLUME	564345.608	4183044.081	2.00
LOCATION	L0004894	VOLUME	564345.847	4183044.010	2.00
LOCATION	L0004895	VOLUME	564346.087	4183043.938	2.00
LOCATION	L0004896	VOLUME	564346.326	4183043.866	2.00
LOCATION	L0004897	VOLUME	564346.565	4183043.794	2.00
LOCATION	L0004898	VOLUME	564346.805	4183043.722	2.00
LOCATION	L0004899	VOLUME	564347.044	4183043.650	2.00
LOCATION	L0004900	VOLUME	564347.284	4183043.579	2.01
LOCATION	L0004901	VOLUME	564347.523	4183043.507	2.01
LOCATION	L0004902	VOLUME	564347.763	4183043.435	2.01
LOCATION	L0004903	VOLUME	564348.002	4183043.363	2.02
LOCATION	L0004904	VOLUME	564348.242	4183043.291	2.02
LOCATION	L0004905	VOLUME	564348.481	4183043.219	2.02
LOCATION	L0004906	VOLUME	564348.721	4183043.148	2.02
LOCATION	L0004907	VOLUME	564348.960	4183043.076	2.03
LOCATION	L0004908	VOLUME	564349.199	4183043.004	2.03
LOCATION	L0004909	VOLUME	564349.439	4183042.932	2.03
LOCATION	L0004910	VOLUME	564349.678	4183042.860	2.04
LOCATION	L0004911	VOLUME	564349.918	4183042.788	2.04
LOCATION	L0004912	VOLUME	564350.157	4183042.717	2.04
LOCATION	L0004913	VOLUME	564350.397	4183042.645	2.04
LOCATION	L0004914	VOLUME	564350.636	4183042.573	2.05
LOCATION	L0004915	VOLUME	564350.876	4183042.501	2.05
LOCATION	L0004916	VOLUME	564351.115	4183042.429	2.05
LOCATION	L0004917	VOLUME	564351.355	4183042.357	2.05
LOCATION	L0004918	VOLUME	564351.594	4183042.286	2.05
LOCATION	L0004919	VOLUME	564351.833	4183042.214	2.05
LOCATION	L0004920	VOLUME	564352.073	4183042.142	2.05
LOCATION	L0004921	VOLUME	564352.312	4183042.070	2.05
LOCATION	L0004922	VOLUME	564352.552	4183041.998	2.05
LOCATION	L0004923	VOLUME	564352.791	4183041.926	2.05
LOCATION	L0004924	VOLUME	564353.031	4183041.855	2.05
LOCATION	L0004925	VOLUME	564353.270	4183041.783	2.05
LOCATION	L0004926	VOLUME	564353.510	4183041.711	2.04
LOCATION	L0004927	VOLUME	564353.749	4183041.639	2.04

LOCATION	L0004928	VOLUME	564353.989	4183041.567	2.03
LOCATION	L0004929	VOLUME	564354.228	4183041.495	2.03
LOCATION	L0004930	VOLUME	564354.468	4183041.424	2.02
LOCATION	L0004931	VOLUME	564354.707	4183041.352	2.02
LOCATION	L0004932	VOLUME	564354.946	4183041.280	2.01
LOCATION	L0004933	VOLUME	564355.186	4183041.208	2.00
LOCATION	L0004934	VOLUME	564355.425	4183041.136	1.99
LOCATION	L0004935	VOLUME	564355.665	4183041.064	1.98
LOCATION	L0004936	VOLUME	564355.904	4183040.993	1.97
LOCATION	L0004937	VOLUME	564356.144	4183040.921	1.96
LOCATION	L0004938	VOLUME	564356.383	4183040.849	1.95
LOCATION	L0004939	VOLUME	564356.623	4183040.777	1.94
LOCATION	L0004940	VOLUME	564356.862	4183040.705	1.92
LOCATION	L0004941	VOLUME	564357.102	4183040.633	1.91
LOCATION	L0004942	VOLUME	564357.341	4183040.561	1.90
LOCATION	L0004943	VOLUME	564357.580	4183040.490	1.88
LOCATION	L0004944	VOLUME	564357.820	4183040.418	1.87
LOCATION	L0004945	VOLUME	564358.059	4183040.346	1.85
LOCATION	L0004946	VOLUME	564358.299	4183040.274	1.84
LOCATION	L0004947	VOLUME	564358.538	4183040.202	1.82
LOCATION	L0004948	VOLUME	564358.778	4183040.130	1.80
LOCATION	L0004949	VOLUME	564359.017	4183040.059	1.79
LOCATION	L0004950	VOLUME	564359.257	4183039.987	1.77
LOCATION	L0004951	VOLUME	564359.496	4183039.915	1.75
LOCATION	L0004952	VOLUME	564359.736	4183039.843	1.74
LOCATION	L0004953	VOLUME	564359.975	4183039.771	1.41
LOCATION	L0004954	VOLUME	564360.214	4183039.699	1.40
LOCATION	L0004955	VOLUME	564360.454	4183039.628	1.39
LOCATION	L0004956	VOLUME	564360.693	4183039.556	1.38
LOCATION	L0004957	VOLUME	564360.933	4183039.484	1.36
LOCATION	L0004958	VOLUME	564361.172	4183039.412	1.35
LOCATION	L0004959	VOLUME	564361.412	4183039.340	1.34
LOCATION	L0004960	VOLUME	564361.651	4183039.268	1.33
LOCATION	L0004961	VOLUME	564361.891	4183039.197	1.32
LOCATION	L0004962	VOLUME	564362.130	4183039.125	1.31
LOCATION	L0004963	VOLUME	564362.370	4183039.053	1.30
LOCATION	L0004964	VOLUME	564362.609	4183038.981	1.28
LOCATION	L0004965	VOLUME	564362.848	4183038.909	1.27

LOCATION	L0004966	VOLUME	564363.088	4183038.837	1.27
LOCATION	L0004967	VOLUME	564363.327	4183038.766	1.26
LOCATION	L0004968	VOLUME	564363.567	4183038.694	1.25
LOCATION	L0004969	VOLUME	564363.806	4183038.622	1.24
LOCATION	L0004970	VOLUME	564364.046	4183038.550	1.23
LOCATION	L0004971	VOLUME	564364.285	4183038.478	1.22
LOCATION	L0004972	VOLUME	564364.525	4183038.406	1.22
LOCATION	L0004973	VOLUME	564364.764	4183038.335	1.22
LOCATION	L0004974	VOLUME	564365.004	4183038.263	1.21
LOCATION	L0004975	VOLUME	564365.243	4183038.191	1.20
LOCATION	L0004976	VOLUME	564365.483	4183038.119	1.20
LOCATION	L0004977	VOLUME	564365.722	4183038.047	1.19
LOCATION	L0004978	VOLUME	564365.961	4183037.975	1.19
LOCATION	L0004979	VOLUME	564366.201	4183037.904	1.18
LOCATION	L0004980	VOLUME	564366.440	4183037.832	1.18
LOCATION	L0004981	VOLUME	564366.680	4183037.760	1.18
LOCATION	L0004982	VOLUME	564366.919	4183037.688	1.17
LOCATION	L0004983	VOLUME	564367.159	4183037.616	1.17
LOCATION	L0004984	VOLUME	564367.398	4183037.544	1.17
LOCATION	L0004985	VOLUME	564367.638	4183037.472	1.16
LOCATION	L0004986	VOLUME	564367.877	4183037.401	1.16
LOCATION	L0004987	VOLUME	564368.117	4183037.329	1.16
LOCATION	L0004988	VOLUME	564368.356	4183037.257	1.16
LOCATION	L0004989	VOLUME	564368.595	4183037.185	1.16
LOCATION	L0004990	VOLUME	564368.835	4183037.113	1.16
LOCATION	L0004991	VOLUME	564369.074	4183037.041	1.16
LOCATION	L0004992	VOLUME	564369.314	4183036.970	1.16
LOCATION	L0004993	VOLUME	564369.553	4183036.898	1.16
LOCATION	L0004994	VOLUME	564369.793	4183036.826	1.16
LOCATION	L0004995	VOLUME	564370.032	4183036.754	1.16
LOCATION	L0004996	VOLUME	564370.272	4183036.682	1.16
LOCATION	L0004997	VOLUME	564370.511	4183036.610	1.17
LOCATION	L0004998	VOLUME	564370.751	4183036.539	1.17
LOCATION	L0004999	VOLUME	564370.990	4183036.467	1.17
LOCATION	L0005000	VOLUME	564371.229	4183036.395	1.16
LOCATION	L0005001	VOLUME	564371.469	4183036.323	1.17
LOCATION	L0005002	VOLUME	564371.708	4183036.251	1.17
LOCATION	L0005003	VOLUME	564371.948	4183036.179	1.17

LOCATION	L0005004	VOLUME	564372.187	4183036.108	1.18
LOCATION	L0005005	VOLUME	564372.427	4183036.036	1.18
LOCATION	L0005006	VOLUME	564372.666	4183035.964	1.18
LOCATION	L0005007	VOLUME	564372.906	4183035.892	1.18
LOCATION	L0005008	VOLUME	564373.145	4183035.820	1.19
LOCATION	L0005009	VOLUME	564373.385	4183035.748	1.19
LOCATION	L0005010	VOLUME	564373.624	4183035.677	1.19
LOCATION	L0005011	VOLUME	564373.863	4183035.605	1.20
LOCATION	L0005012	VOLUME	564374.103	4183035.533	1.20
LOCATION	L0005013	VOLUME	564374.342	4183035.461	1.21
LOCATION	L0005014	VOLUME	564374.582	4183035.389	1.21
LOCATION	L0005015	VOLUME	564374.821	4183035.317	1.22
LOCATION	L0005016	VOLUME	564375.061	4183035.246	1.22
LOCATION	L0005017	VOLUME	564375.300	4183035.174	1.22
LOCATION	L0005018	VOLUME	564375.540	4183035.102	1.23
LOCATION	L0005019	VOLUME	564375.779	4183035.030	1.23
LOCATION	L0005020	VOLUME	564376.019	4183034.958	1.23
LOCATION	L0005021	VOLUME	564376.258	4183034.886	1.23
LOCATION	L0005022	VOLUME	564376.498	4183034.815	1.24
LOCATION	L0005023	VOLUME	564376.737	4183034.743	1.24
LOCATION	L0005024	VOLUME	564376.976	4183034.671	1.24
LOCATION	L0005025	VOLUME	564377.216	4183034.599	1.25
LOCATION	L0005026	VOLUME	564377.455	4183034.527	1.25
LOCATION	L0005027	VOLUME	564377.695	4183034.455	1.25
LOCATION	L0005028	VOLUME	564377.934	4183034.384	1.25
LOCATION	L0005029	VOLUME	564378.174	4183034.312	1.26
LOCATION	L0005030	VOLUME	564378.413	4183034.240	1.26
LOCATION	L0005031	VOLUME	564378.653	4183034.168	1.26
LOCATION	L0005032	VOLUME	564378.892	4183034.096	1.26
LOCATION	L0005033	VOLUME	564379.132	4183034.024	1.26
LOCATION	L0005034	VOLUME	564379.371	4183033.952	1.26
LOCATION	L0005035	VOLUME	564379.610	4183033.881	1.26
LOCATION	L0005036	VOLUME	564379.850	4183033.809	1.27
LOCATION	L0005037	VOLUME	564380.089	4183033.737	1.27
LOCATION	L0005038	VOLUME	564380.329	4183033.665	1.27
LOCATION	L0005039	VOLUME	564380.568	4183033.593	1.27
LOCATION	L0005040	VOLUME	564380.808	4183033.521	1.27
LOCATION	L0005041	VOLUME	564381.047	4183033.450	1.27

LOCATION	L0005042	VOLUME	564381.287	4183033.378	1.27
LOCATION	L0005043	VOLUME	564381.526	4183033.306	1.28
LOCATION	L0005044	VOLUME	564381.766	4183033.234	1.27
LOCATION	L0005045	VOLUME	564382.005	4183033.162	1.27
LOCATION	L0005046	VOLUME	564382.244	4183033.090	1.28
LOCATION	L0005047	VOLUME	564382.484	4183033.019	1.27
LOCATION	L0005048	VOLUME	564382.723	4183032.947	1.27
LOCATION	L0005049	VOLUME	564382.963	4183032.875	1.28
LOCATION	L0005050	VOLUME	564383.202	4183032.803	1.27
LOCATION	L0005051	VOLUME	564383.442	4183032.731	1.27
LOCATION	L0005052	VOLUME	564383.681	4183032.659	1.27
LOCATION	L0005053	VOLUME	564383.921	4183032.588	1.27
LOCATION	L0005054	VOLUME	564384.160	4183032.516	1.07
LOCATION	L0005055	VOLUME	564384.400	4183032.444	1.07
LOCATION	L0005056	VOLUME	564384.639	4183032.372	1.08
LOCATION	L0005057	VOLUME	564384.878	4183032.300	1.08
LOCATION	L0005058	VOLUME	564385.118	4183032.228	1.08
LOCATION	L0005059	VOLUME	564385.357	4183032.157	1.08
LOCATION	L0005060	VOLUME	564385.597	4183032.085	1.08
LOCATION	L0005061	VOLUME	564385.836	4183032.013	1.08
LOCATION	L0005062	VOLUME	564386.076	4183031.941	1.08
LOCATION	L0005063	VOLUME	564386.315	4183031.869	1.27
LOCATION	L0005064	VOLUME	564386.555	4183031.797	1.27
LOCATION	L0005065	VOLUME	564386.794	4183031.726	1.26
LOCATION	L0005066	VOLUME	564387.034	4183031.654	1.26
LOCATION	L0005067	VOLUME	564387.273	4183031.582	1.26
LOCATION	L0005068	VOLUME	564387.513	4183031.510	1.26
LOCATION	L0005069	VOLUME	564387.752	4183031.438	1.25
LOCATION	L0005070	VOLUME	564387.991	4183031.366	1.25
LOCATION	L0005071	VOLUME	564388.231	4183031.295	1.25
LOCATION	L0005072	VOLUME	564388.470	4183031.223	1.25
LOCATION	L0005073	VOLUME	564388.710	4183031.151	1.24
LOCATION	L0005074	VOLUME	564388.949	4183031.079	1.24
LOCATION	L0005075	VOLUME	564389.189	4183031.007	1.24
LOCATION	L0005076	VOLUME	564389.428	4183030.935	1.24
LOCATION	L0005077	VOLUME	564389.668	4183030.863	1.24
LOCATION	L0005078	VOLUME	564389.907	4183030.792	1.23
LOCATION	L0005079	VOLUME	564390.147	4183030.720	1.23

LOCATION	L0005080	VOLUME	564390.386	4183030.648	1.23
LOCATION	L0005081	VOLUME	564390.625	4183030.576	1.23
LOCATION	L0005082	VOLUME	564390.865	4183030.504	1.23
LOCATION	L0005083	VOLUME	564391.104	4183030.432	1.23
LOCATION	L0005084	VOLUME	564391.344	4183030.361	1.23
LOCATION	L0005085	VOLUME	564391.583	4183030.289	1.23
LOCATION	L0005086	VOLUME	564391.823	4183030.217	1.22
LOCATION	L0005087	VOLUME	564392.062	4183030.145	1.22
LOCATION	L0005088	VOLUME	564392.302	4183030.073	1.22
LOCATION	L0005089	VOLUME	564392.541	4183030.001	1.22
LOCATION	L0005090	VOLUME	564392.781	4183029.930	1.22
LOCATION	L0005091	VOLUME	564393.020	4183029.858	1.22
LOCATION	L0005092	VOLUME	564393.259	4183029.786	1.22
LOCATION	L0005093	VOLUME	564393.499	4183029.714	1.22
LOCATION	L0005094	VOLUME	564393.738	4183029.642	1.22
LOCATION	L0005095	VOLUME	564393.978	4183029.570	1.22
LOCATION	L0005096	VOLUME	564394.217	4183029.499	1.22
LOCATION	L0005097	VOLUME	564394.457	4183029.427	1.22
LOCATION	L0005098	VOLUME	564394.696	4183029.355	1.22
LOCATION	L0005099	VOLUME	564394.936	4183029.283	1.22
LOCATION	L0005100	VOLUME	564395.175	4183029.211	1.22
LOCATION	L0005101	VOLUME	564395.415	4183029.139	1.22
LOCATION	L0005102	VOLUME	564395.654	4183029.068	1.22
LOCATION	L0005103	VOLUME	564395.893	4183028.996	1.22
LOCATION	L0005104	VOLUME	564396.133	4183028.924	1.22
LOCATION	L0005105	VOLUME	564396.372	4183028.852	1.23
LOCATION	L0005106	VOLUME	564396.612	4183028.780	1.23
LOCATION	L0005107	VOLUME	564396.851	4183028.708	1.23
LOCATION	L0005108	VOLUME	564397.091	4183028.637	1.23
LOCATION	L0005109	VOLUME	564397.330	4183028.565	1.23
LOCATION	L0005110	VOLUME	564397.570	4183028.493	1.23
LOCATION	L0005111	VOLUME	564397.809	4183028.421	1.23
LOCATION	L0005112	VOLUME	564398.049	4183028.349	1.24
LOCATION	L0005113	VOLUME	564398.288	4183028.277	1.24
LOCATION	L0005114	VOLUME	564398.528	4183028.206	1.24
LOCATION	L0005115	VOLUME	564398.767	4183028.134	1.24
LOCATION	L0005116	VOLUME	564399.006	4183028.062	1.24
LOCATION	L0005117	VOLUME	564399.246	4183027.990	1.25

LOCATION	L0005118	VOLUME	564399.485	4183027.918	1.25
LOCATION	L0005119	VOLUME	564399.725	4183027.846	1.25
LOCATION	L0005120	VOLUME	564399.964	4183027.775	1.25
LOCATION	L0005121	VOLUME	564400.204	4183027.703	1.26
LOCATION	L0005122	VOLUME	564400.443	4183027.631	1.26
LOCATION	L0005123	VOLUME	564400.683	4183027.559	1.26
LOCATION	L0005124	VOLUME	564400.922	4183027.487	1.27
LOCATION	L0005125	VOLUME	564401.162	4183027.415	1.27
LOCATION	L0005126	VOLUME	564401.401	4183027.343	1.28
LOCATION	L0005127	VOLUME	564401.640	4183027.272	1.28
LOCATION	L0005128	VOLUME	564401.880	4183027.200	1.28
LOCATION	L0005129	VOLUME	564402.119	4183027.128	1.29
LOCATION	L0005130	VOLUME	564402.359	4183027.056	1.29
LOCATION	L0005131	VOLUME	564402.598	4183026.984	1.30
LOCATION	L0005132	VOLUME	564402.838	4183026.912	1.30
LOCATION	L0005133	VOLUME	564403.077	4183026.841	1.31
LOCATION	L0005134	VOLUME	564403.317	4183026.769	1.31
LOCATION	L0005135	VOLUME	564403.556	4183026.697	1.32
LOCATION	L0005136	VOLUME	564403.796	4183026.625	1.33
LOCATION	L0005137	VOLUME	564404.035	4183026.553	1.33
LOCATION	L0005138	VOLUME	564404.274	4183026.481	1.34
LOCATION	L0005139	VOLUME	564404.514	4183026.410	1.34
LOCATION	L0005140	VOLUME	564404.753	4183026.338	1.35
LOCATION	L0005141	VOLUME	564404.993	4183026.266	1.36
LOCATION	L0005142	VOLUME	564405.232	4183026.194	1.37
LOCATION	L0005143	VOLUME	564405.472	4183026.122	1.37
LOCATION	L0005144	VOLUME	564405.711	4183026.050	1.38
LOCATION	L0005145	VOLUME	564405.951	4183025.979	1.39
LOCATION	L0005146	VOLUME	564406.190	4183025.907	1.39
LOCATION	L0005147	VOLUME	564406.430	4183025.835	1.40
LOCATION	L0005148	VOLUME	564406.669	4183025.763	1.41
LOCATION	L0005149	VOLUME	564406.908	4183025.691	1.42
LOCATION	L0005150	VOLUME	564407.148	4183025.619	1.43
LOCATION	L0005151	VOLUME	564407.387	4183025.548	1.44
LOCATION	L0005152	VOLUME	564407.627	4183025.476	1.45
LOCATION	L0005153	VOLUME	564407.866	4183025.404	1.45
LOCATION	L0005154	VOLUME	564408.106	4183025.332	1.66
LOCATION	L0005155	VOLUME	564408.345	4183025.260	1.67

LOCATION	L0005156	VOLUME	564408.585	4183025.188	1.67
LOCATION	L0005157	VOLUME	564408.824	4183025.117	1.68
LOCATION	L0005158	VOLUME	564409.064	4183025.045	1.69
LOCATION	L0005159	VOLUME	564409.303	4183024.973	1.70
LOCATION	L0005160	VOLUME	564409.543	4183024.901	1.71
LOCATION	L0005161	VOLUME	564409.782	4183024.829	1.71
LOCATION	L0005162	VOLUME	564410.021	4183024.757	1.72
LOCATION	L0005163	VOLUME	564410.261	4183024.686	1.73
LOCATION	L0005164	VOLUME	564410.500	4183024.614	1.74
LOCATION	L0005165	VOLUME	564410.740	4183024.542	1.74
LOCATION	L0005166	VOLUME	564410.979	4183024.470	1.75
LOCATION	L0005167	VOLUME	564411.219	4183024.398	1.76
** End of LINE VOLUME Source ID = SLINE1					
LOCATION	STCK1	POINT	563373.700	4183261.190	0.000
** Source Parameters **					
** LINE VOLUME Source ID = SLINE1					
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SRCPARAM	L0005093	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005094	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005095	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005096	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005097	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005098	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005099	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005100	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005101	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005102	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005103	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005104	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005105	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005106	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005107	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005108	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005109	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005110	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005111	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005112	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005113	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005114	0.000000729	10.00	0.12	4.65

SRCPARAM	L0005115	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005116	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005117	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005118	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005119	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005120	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005121	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005122	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005123	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005124	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005125	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005126	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005127	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005128	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005129	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005130	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005131	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005132	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005133	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005134	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005135	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005136	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005137	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005138	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005139	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005140	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005141	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005142	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005143	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005144	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005145	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005146	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005147	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005148	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005149	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005150	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005151	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005152	0.000000729	10.00	0.12	4.65

SRCPARAM	L0005153	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005154	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005155	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005156	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005157	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005158	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005159	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005160	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005161	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005162	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005163	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005164	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005165	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005166	0.000000729	10.00	0.12	4.65
SRCPARAM	L0005167	0.000000729	10.00	0.12	4.65

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SRCPARAM	STCK1	0.00358	7.620	449.817	25.87220	0.305
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** Variable Emissions Type: "By Season / Hour / Day (SHRDOW)"

** Variable Emission Scenario: "Scenario 2"

** WeekDays:

** Winter

EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0

** Spring

EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	0.0	0.0	0.0

** Summer

EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	0.0	0.0

** Fall

EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	1.0
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EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	1.0	1.0
EMISFACT	STCK1	SHRDOW	1.0	1.0	1.0	1.0	0.0	0.0
** Saturday:								
** Winter								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	1.0
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.0	0.0
** Spring								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.0	0.0
** Summer								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.0
** Fall								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.0
** Sunday:								
** Winter								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	1.0
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.0	0.0
** Spring								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.0	0.0
** Summer								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52

EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.0
** Fall								
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.0	0.0	0.0	0.0
EMISFACT	STCK1	SHRDOW	0.0	0.0	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.52
EMISFACT	STCK1	SHRDOW	0.52	0.52	0.52	0.52	0.52	0.0
SRCGROUP	SRCGP1	L0000001	L0000002	L0000003	L0000004	L0000005	L0000006	
SRCGROUP	SRCGP1	L0000007	L0000008	L0000009	L0000010	L0000011	L0000012	
SRCGROUP	SRCGP1	L0000013	L0000014	L0000015	L0000016	L0000017	L0000018	
SRCGROUP	SRCGP1	L0000019	L0000020	L0000021	L0000022	L0000023	L0000024	
SRCGROUP	SRCGP1	L0000025	L0000026	L0000027	L0000028	L0000029	L0000030	
SRCGROUP	SRCGP1	L0000031	L0000032	L0000033	L0000034	L0000035	L0000036	
SRCGROUP	SRCGP1	L0000037	L0000038	L0000039	L0000040	L0000041	L0000042	
SRCGROUP	SRCGP1	L0000043	L0000044	L0000045	L0000046	L0000047	L0000048	
SRCGROUP	SRCGP1	L0000049	L0000050	L0000051	L0000052	L0000053	L0000054	
SRCGROUP	SRCGP1	L0000055	L0000056	L0000057	L0000058	L0000059	L0000060	
SRCGROUP	SRCGP1	L0000061	L0000062	L0000063	L0000064	L0000065	L0000066	
SRCGROUP	SRCGP1	L0000067	L0000068	L0000069	L0000070	L0000071	L0000072	
SRCGROUP	SRCGP1	L0000073	L0000074	L0000075	L0000076	L0000077	L0000078	
SRCGROUP	SRCGP1	L0000079	L0000080	L0000081	L0000082	L0000083	L0000084	
SRCGROUP	SRCGP1	L0000085	L0000086	L0000087	L0000088	L0000089	L0000090	
SRCGROUP	SRCGP1	L0000091	L0000092	L0000093	L0000094	L0000095	L0000096	
SRCGROUP	SRCGP1	L0000097	L0000098	L0000099	L0000100	L0000101	L0000102	
SRCGROUP	SRCGP1	L0000103	L0000104	L0000105	L0000106	L0000107	L0000108	
SRCGROUP	SRCGP1	L0000109	L0000110	L0000111	L0000112	L0000113	L0000114	
SRCGROUP	SRCGP1	L0000115	L0000116	L0000117	L0000118	L0000119	L0000120	
SRCGROUP	SRCGP1	L0000121	L0000122	L0000123	L0000124	L0000125	L0000126	
SRCGROUP	SRCGP1	L0000127	L0000128	L0000129	L0000130	L0000131	L0000132	
SRCGROUP	SRCGP1	L0000133	L0000134	L0000135	L0000136	L0000137	L0000138	
SRCGROUP	SRCGP1	L0000139	L0000140	L0000141	L0000142	L0000143	L0000144	
SRCGROUP	SRCGP1	L0000145	L0000146	L0000147	L0000148	L0000149	L0000150	
SRCGROUP	SRCGP1	L0000151	L0000152	L0000153	L0000154	L0000155	L0000156	
SRCGROUP	SRCGP1	L0000157	L0000158	L0000159	L0000160	L0000161	L0000162	
SRCGROUP	SRCGP1	L0000163	L0000164	L0000165	L0000166	L0000167	L0000168	
SRCGROUP	SRCGP1	L0000169	L0000170	L0000171	L0000172	L0000173	L0000174	
SRCGROUP	SRCGP1	L0000175	L0000176	L0000177	L0000178	L0000179	L0000180	
SRCGROUP	SRCGP1	L0000181	L0000182	L0000183	L0000184	L0000185	L0000186	

SRCGROUP	SRCGP1	L0000187	L0000188	L0000189	L0000190	L0000191	L0000192
SRCGROUP	SRCGP1	L0000193	L0000194	L0000195	L0000196	L0000197	L0000198
SRCGROUP	SRCGP1	L0000199	L0000200	L0000201	L0000202	L0000203	L0000204
SRCGROUP	SRCGP1	L0000205	L0000206	L0000207	L0000208	L0000209	L0000210
SRCGROUP	SRCGP1	L0000211	L0000212	L0000213	L0000214	L0000215	L0000216
SRCGROUP	SRCGP1	L0000217	L0000218	L0000219	L0000220	L0000221	L0000222
SRCGROUP	SRCGP1	L0000223	L0000224	L0000225	L0000226	L0000227	L0000228
SRCGROUP	SRCGP1	L0000229	L0000230	L0000231	L0000232	L0000233	L0000234
SRCGROUP	SRCGP1	L0000235	L0000236	L0000237	L0000238	L0000239	L0000240
SRCGROUP	SRCGP1	L0000241	L0000242	L0000243	L0000244	L0000245	L0000246
SRCGROUP	SRCGP1	L0000247	L0000248	L0000249	L0000250	L0000251	L0000252
SRCGROUP	SRCGP1	L0000253	L0000254	L0000255	L0000256	L0000257	L0000258
SRCGROUP	SRCGP1	L0000259	L0000260	L0000261	L0000262	L0000263	L0000264
SRCGROUP	SRCGP1	L0000265	L0000266	L0000267	L0000268	L0000269	L0000270
SRCGROUP	SRCGP1	L0000271	L0000272	L0000273	L0000274	L0000275	L0000276
SRCGROUP	SRCGP1	L0000277	L0000278	L0000279	L0000280	L0000281	L0000282
SRCGROUP	SRCGP1	L0000283	L0000284	L0000285	L0000286	L0000287	L0000288
SRCGROUP	SRCGP1	L0000289	L0000290	L0000291	L0000292	L0000293	L0000294
SRCGROUP	SRCGP1	L0000295	L0000296	L0000297	L0000298	L0000299	L0000300
SRCGROUP	SRCGP1	L0000301	L0000302	L0000303	L0000304	L0000305	L0000306
SRCGROUP	SRCGP1	L0000307	L0000308	L0000309	L0000310	L0000311	L0000312
SRCGROUP	SRCGP1	L0000313	L0000314	L0000315	L0000316	L0000317	L0000318
SRCGROUP	SRCGP1	L0000319	L0000320	L0000321	L0000322	L0000323	L0000324
SRCGROUP	SRCGP1	L0000325	L0000326	L0000327	L0000328	L0000329	L0000330
SRCGROUP	SRCGP1	L0000331	L0000332	L0000333	L0000334	L0000335	L0000336
SRCGROUP	SRCGP1	L0000337	L0000338	L0000339	L0000340	L0000341	L0000342
SRCGROUP	SRCGP1	L0000343	L0000344	L0000345	L0000346	L0000347	L0000348
SRCGROUP	SRCGP1	L0000349	L0000350	L0000351	L0000352	L0000353	L0000354
SRCGROUP	SRCGP1	L0000355	L0000356	L0000357	L0000358	L0000359	L0000360
SRCGROUP	SRCGP1	L0000361	L0000362	L0000363	L0000364	L0000365	L0000366
SRCGROUP	SRCGP1	L0000367	L0000368	L0000369	L0000370	L0000371	L0000372
SRCGROUP	SRCGP1	L0000373	L0000374	L0000375	L0000376	L0000377	L0000378
SRCGROUP	SRCGP1	L0000379	L0000380	L0000381	L0000382	L0000383	L0000384
SRCGROUP	SRCGP1	L0000385	L0000386	L0000387	L0000388	L0000389	L0000390
SRCGROUP	SRCGP1	L0000391	L0000392	L0000393	L0000394	L0000395	L0000396
SRCGROUP	SRCGP1	L0000397	L0000398	L0000399	L0000400	L0000401	L0000402
SRCGROUP	SRCGP1	L0000403	L0000404	L0000405	L0000406	L0000407	L0000408
SRCGROUP	SRCGP1	L0000409	L0000410	L0000411	L0000412	L0000413	L0000414

SRCGROUP	SRCGP1	L0000415	L0000416	L0000417	L0000418	L0000419	L0000420
SRCGROUP	SRCGP1	L0000421	L0000422	L0000423	L0000424	L0000425	L0000426
SRCGROUP	SRCGP1	L0000427	L0000428	L0000429	L0000430	L0000431	L0000432
SRCGROUP	SRCGP1	L0000433	L0000434	L0000435	L0000436	L0000437	L0000438
SRCGROUP	SRCGP1	L0000439	L0000440	L0000441	L0000442	L0000443	L0000444
SRCGROUP	SRCGP1	L0000445	L0000446	L0000447	L0000448	L0000449	L0000450
SRCGROUP	SRCGP1	L0000451	L0000452	L0000453	L0000454	L0000455	L0000456
SRCGROUP	SRCGP1	L0000457	L0000458	L0000459	L0000460	L0000461	L0000462
SRCGROUP	SRCGP1	L0000463	L0000464	L0000465	L0000466	L0000467	L0000468
SRCGROUP	SRCGP1	L0000469	L0000470	L0000471	L0000472	L0000473	L0000474
SRCGROUP	SRCGP1	L0000475	L0000476	L0000477	L0000478	L0000479	L0000480
SRCGROUP	SRCGP1	L0000481	L0000482	L0000483	L0000484	L0000485	L0000486
SRCGROUP	SRCGP1	L0000487	L0000488	L0000489	L0000490	L0000491	L0000492
SRCGROUP	SRCGP1	L0000493	L0000494	L0000495	L0000496	L0000497	L0000498
SRCGROUP	SRCGP1	L0000499	L0000500	L0000501	L0000502	L0000503	L0000504
SRCGROUP	SRCGP1	L0000505	L0000506	L0000507	L0000508	L0000509	L0000510
SRCGROUP	SRCGP1	L0000511	L0000512	L0000513	L0000514	L0000515	L0000516
SRCGROUP	SRCGP1	L0000517	L0000518	L0000519	L0000520	L0000521	L0000522
SRCGROUP	SRCGP1	L0000523	L0000524	L0000525	L0000526	L0000527	L0000528
SRCGROUP	SRCGP1	L0000529	L0000530	L0000531	L0000532	L0000533	L0000534
SRCGROUP	SRCGP1	L0000535	L0000536	L0000537	L0000538	L0000539	L0000540
SRCGROUP	SRCGP1	L0000541	L0000542	L0000543	L0000544	L0000545	L0000546
SRCGROUP	SRCGP1	L0000547	L0000548	L0000549	L0000550	L0000551	L0000552
SRCGROUP	SRCGP1	L0000553	L0000554	L0000555	L0000556	L0000557	L0000558
SRCGROUP	SRCGP1	L0000559	L0000560	L0000561	L0000562	L0000563	L0000564
SRCGROUP	SRCGP1	L0000565	L0000566	L0000567	L0000568	L0000569	L0000570
SRCGROUP	SRCGP1	L0000571	L0000572	L0000573	L0000574	L0000575	L0000576
SRCGROUP	SRCGP1	L0000577	L0000578	L0000579	L0000580	L0000581	L0000582
SRCGROUP	SRCGP1	L0000583	L0000584	L0000585	L0000586	L0000587	L0000588
SRCGROUP	SRCGP1	L0000589	L0000590	L0000591	L0000592	L0000593	L0000594
SRCGROUP	SRCGP1	L0000595	L0000596	L0000597	L0000598	L0000599	L0000600
SRCGROUP	SRCGP1	L0000601	L0000602	L0000603	L0000604	L0000605	L0000606
SRCGROUP	SRCGP1	L0000607	L0000608	L0000609	L0000610	L0000611	L0000612
SRCGROUP	SRCGP1	L0000613	L0000614	L0000615	L0000616	L0000617	L0000618
SRCGROUP	SRCGP1	L0000619	L0000620	L0000621	L0000622	L0000623	L0000624
SRCGROUP	SRCGP1	L0000625	L0000626	L0000627	L0000628	L0000629	L0000630
SRCGROUP	SRCGP1	L0000631	L0000632	L0000633	L0000634	L0000635	L0000636
SRCGROUP	SRCGP1	L0000637	L0000638	L0000639	L0000640	L0000641	L0000642

SRCGROUP	SRCGP1	L0000643	L0000644	L0000645	L0000646	L0000647	L0000648
SRCGROUP	SRCGP1	L0000649	L0000650	L0000651	L0000652	L0000653	L0000654
SRCGROUP	SRCGP1	L0000655	L0000656	L0000657	L0000658	L0000659	L0000660
SRCGROUP	SRCGP1	L0000661	L0000662	L0000663	L0000664	L0000665	L0000666
SRCGROUP	SRCGP1	L0000667	L0000668	L0000669	L0000670	L0000671	L0000672
SRCGROUP	SRCGP1	L0000673	L0000674	L0000675	L0000676	L0000677	L0000678
SRCGROUP	SRCGP1	L0000679	L0000680	L0000681	L0000682	L0000683	L0000684
SRCGROUP	SRCGP1	L0000685	L0000686	L0000687	L0000688	L0000689	L0000690
SRCGROUP	SRCGP1	L0000691	L0000692	L0000693	L0000694	L0000695	L0000696
SRCGROUP	SRCGP1	L0000697	L0000698	L0000699	L0000700	L0000701	L0000702
SRCGROUP	SRCGP1	L0000703	L0000704	L0000705	L0000706	L0000707	L0000708
SRCGROUP	SRCGP1	L0000709	L0000710	L0000711	L0000712	L0000713	L0000714
SRCGROUP	SRCGP1	L0000715	L0000716	L0000717	L0000718	L0000719	L0000720
SRCGROUP	SRCGP1	L0000721	L0000722	L0000723	L0000724	L0000725	L0000726
SRCGROUP	SRCGP1	L0000727	L0000728	L0000729	L0000730	L0000731	L0000732
SRCGROUP	SRCGP1	L0000733	L0000734	L0000735	L0000736	L0000737	L0000738
SRCGROUP	SRCGP1	L0000739	L0000740	L0000741	L0000742	L0000743	L0000744
SRCGROUP	SRCGP1	L0000745	L0000746	L0000747	L0000748	L0000749	L0000750
SRCGROUP	SRCGP1	L0000751	L0000752	L0000753	L0000754	L0000755	L0000756
SRCGROUP	SRCGP1	L0000757	L0000758	L0000759	L0000760	L0000761	L0000762
SRCGROUP	SRCGP1	L0000763	L0000764	L0000765	L0000766	L0000767	L0000768
SRCGROUP	SRCGP1	L0000769	L0000770	L0000771	L0000772	L0000773	L0000774
SRCGROUP	SRCGP1	L0000775	L0000776	L0000777	L0000778	L0000779	L0000780
SRCGROUP	SRCGP1	L0000781	L0000782	L0000783	L0000784	L0000785	L0000786
SRCGROUP	SRCGP1	L0000787	L0000788	L0000789	L0000790	L0000791	L0000792
SRCGROUP	SRCGP1	L0000793	L0000794	L0000795	L0000796	L0000797	L0000798
SRCGROUP	SRCGP1	L0000799	L0000800	L0000801	L0000802	L0000803	L0000804
SRCGROUP	SRCGP1	L0000805	L0000806	L0000807	L0000808	L0000809	L0000810
SRCGROUP	SRCGP1	L0000811	L0000812	L0000813	L0000814	L0000815	L0000816
SRCGROUP	SRCGP1	L0000817	L0000818	L0000819	L0000820	L0000821	L0000822
SRCGROUP	SRCGP1	L0000823	L0000824	L0000825	L0000826	L0000827	L0000828
SRCGROUP	SRCGP1	L0000829	L0000830	L0000831	L0000832	L0000833	L0000834
SRCGROUP	SRCGP1	L0000835	L0000836	L0000837	L0000838	L0000839	L0000840
SRCGROUP	SRCGP1	L0000841	L0000842	L0000843	L0000844	L0000845	L0000846
SRCGROUP	SRCGP1	L0000847	L0000848	L0000849	L0000850	L0000851	L0000852
SRCGROUP	SRCGP1	L0000853	L0000854	L0000855	L0000856	L0000857	L0000858
SRCGROUP	SRCGP1	L0000859	L0000860	L0000861	L0000862	L0000863	L0000864
SRCGROUP	SRCGP1	L0000865	L0000866	L0000867	L0000868	L0000869	L0000870

SRCGROUP	SRCGP1	L0000871	L0000872	L0000873	L0000874	L0000875	L0000876
SRCGROUP	SRCGP1	L0000877	L0000878	L0000879	L0000880	L0000881	L0000882
SRCGROUP	SRCGP1	L0000883	L0000884	L0000885	L0000886	L0000887	L0000888
SRCGROUP	SRCGP1	L0000889	L0000890	L0000891	L0000892	L0000893	L0000894
SRCGROUP	SRCGP1	L0000895	L0000896	L0000897	L0000898	L0000899	L0000900
SRCGROUP	SRCGP1	L0000901	L0000902	L0000903	L0000904	L0000905	L0000906
SRCGROUP	SRCGP1	L0000907	L0000908	L0000909	L0000910	L0000911	L0000912
SRCGROUP	SRCGP1	L0000913	L0000914	L0000915	L0000916	L0000917	L0000918
SRCGROUP	SRCGP1	L0000919	L0000920	L0000921	L0000922	L0000923	L0000924
SRCGROUP	SRCGP1	L0000925	L0000926	L0000927	L0000928	L0000929	L0000930
SRCGROUP	SRCGP1	L0000931	L0000932	L0000933	L0000934	L0000935	L0000936
SRCGROUP	SRCGP1	L0000937	L0000938	L0000939	L0000940	L0000941	L0000942
SRCGROUP	SRCGP1	L0000943	L0000944	L0000945	L0000946	L0000947	L0000948
SRCGROUP	SRCGP1	L0000949	L0000950	L0000951	L0000952	L0000953	L0000954
SRCGROUP	SRCGP1	L0000955	L0000956	L0000957	L0000958	L0000959	L0000960
SRCGROUP	SRCGP1	L0000961	L0000962	L0000963	L0000964	L0000965	L0000966
SRCGROUP	SRCGP1	L0000967	L0000968	L0000969	L0000970	L0000971	L0000972
SRCGROUP	SRCGP1	L0000973	L0000974	L0000975	L0000976	L0000977	L0000978
SRCGROUP	SRCGP1	L0000979	L0000980	L0000981	L0000982	L0000983	L0000984
SRCGROUP	SRCGP1	L0000985	L0000986	L0000987	L0000988	L0000989	L0000990
SRCGROUP	SRCGP1	L0000991	L0000992	L0000993	L0000994	L0000995	L0000996
SRCGROUP	SRCGP1	L0000997	L0000998	L0000999	L0001000	L0001001	L0001002
SRCGROUP	SRCGP1	L0001003	L0001004	L0001005	L0001006	L0001007	L0001008
SRCGROUP	SRCGP1	L0001009	L0001010	L0001011	L0001012	L0001013	L0001014
SRCGROUP	SRCGP1	L0001015	L0001016	L0001017	L0001018	L0001019	L0001020
SRCGROUP	SRCGP1	L0001021	L0001022	L0001023	L0001024	L0001025	L0001026
SRCGROUP	SRCGP1	L0001027	L0001028	L0001029	L0001030	L0001031	L0001032
SRCGROUP	SRCGP1	L0001033	L0001034	L0001035	L0001036	L0001037	L0001038
SRCGROUP	SRCGP1	L0001039	L0001040	L0001041	L0001042	L0001043	L0001044
SRCGROUP	SRCGP1	L0001045	L0001046	L0001047	L0001048	L0001049	L0001050
SRCGROUP	SRCGP1	L0001051	L0001052	L0001053	L0001054	L0001055	L0001056
SRCGROUP	SRCGP1	L0001057	L0001058	L0001059	L0001060	L0001061	L0001062
SRCGROUP	SRCGP1	L0001063	L0001064	L0001065	L0001066	L0001067	L0001068
SRCGROUP	SRCGP1	L0001069	L0001070	L0001071	L0001072	L0001073	L0001074
SRCGROUP	SRCGP1	L0001075	L0001076	L0001077	L0001078	L0001079	L0001080
SRCGROUP	SRCGP1	L0001081	L0001082	L0001083	L0001084	L0001085	L0001086
SRCGROUP	SRCGP1	L0001087	L0001088	L0001089	L0001090	L0001091	L0001092
SRCGROUP	SRCGP1	L0001093	L0001094	L0001095	L0001096	L0001097	L0001098

SRCGROUP	SRCGP1	L0001099	L0001100	L0001101	L0001102	L0001103	L0001104
SRCGROUP	SRCGP1	L0001105	L0001106	L0001107	L0001108	L0001109	L0001110
SRCGROUP	SRCGP1	L0001111	L0001112	L0001113	L0001114	L0001115	L0001116
SRCGROUP	SRCGP1	L0001117	L0001118	L0001119	L0001120	L0001121	L0001122
SRCGROUP	SRCGP1	L0001123	L0001124	L0001125	L0001126	L0001127	L0001128
SRCGROUP	SRCGP1	L0001129	L0001130	L0001131	L0001132	L0001133	L0001134
SRCGROUP	SRCGP1	L0001135	L0001136	L0001137	L0001138	L0001139	L0001140
SRCGROUP	SRCGP1	L0001141	L0001142	L0001143	L0001144	L0001145	L0001146
SRCGROUP	SRCGP1	L0001147	L0001148	L0001149	L0001150	L0001151	L0001152
SRCGROUP	SRCGP1	L0001153	L0001154	L0001155	L0001156	L0001157	L0001158
SRCGROUP	SRCGP1	L0001159	L0001160	L0001161	L0001162	L0001163	L0001164
SRCGROUP	SRCGP1	L0001165	L0001166	L0001167	L0001168	L0001169	L0001170
SRCGROUP	SRCGP1	L0001171	L0001172	L0001173	L0001174	L0001175	L0001176
SRCGROUP	SRCGP1	L0001177	L0001178	L0001179	L0001180	L0001181	L0001182
SRCGROUP	SRCGP1	L0001183	L0001184	L0001185	L0001186	L0001187	L0001188
SRCGROUP	SRCGP1	L0001189	L0001190	L0001191	L0001192	L0001193	L0001194
SRCGROUP	SRCGP1	L0001195	L0001196	L0001197	L0001198	L0001199	L0001200
SRCGROUP	SRCGP1	L0001201	L0001202	L0001203	L0001204	L0001205	L0001206
SRCGROUP	SRCGP1	L0001207	L0001208	L0001209	L0001210	L0001211	L0001212
SRCGROUP	SRCGP1	L0001213	L0001214	L0001215	L0001216	L0001217	L0001218
SRCGROUP	SRCGP1	L0001219	L0001220	L0001221	L0001222	L0001223	L0001224
SRCGROUP	SRCGP1	L0001225	L0001226	L0001227	L0001228	L0001229	L0001230
SRCGROUP	SRCGP1	L0001231	L0001232	L0001233	L0001234	L0001235	L0001236
SRCGROUP	SRCGP1	L0001237	L0001238	L0001239	L0001240	L0001241	L0001242
SRCGROUP	SRCGP1	L0001243	L0001244	L0001245	L0001246	L0001247	L0001248
SRCGROUP	SRCGP1	L0001249	L0001250	L0001251	L0001252	L0001253	L0001254
SRCGROUP	SRCGP1	L0001255	L0001256	L0001257	L0001258	L0001259	L0001260
SRCGROUP	SRCGP1	L0001261	L0001262	L0001263	L0001264	L0001265	L0001266
SRCGROUP	SRCGP1	L0001267	L0001268	L0001269	L0001270	L0001271	L0001272
SRCGROUP	SRCGP1	L0001273	L0001274	L0001275	L0001276	L0001277	L0001278
SRCGROUP	SRCGP1	L0001279	L0001280	L0001281	L0001282	L0001283	L0001284
SRCGROUP	SRCGP1	L0001285	L0001286	L0001287	L0001288	L0001289	L0001290
SRCGROUP	SRCGP1	L0001291	L0001292	L0001293	L0001294	L0001295	L0001296
SRCGROUP	SRCGP1	L0001297	L0001298	L0001299	L0001300	L0001301	L0001302
SRCGROUP	SRCGP1	L0001303	L0001304	L0001305	L0001306	L0001307	L0001308
SRCGROUP	SRCGP1	L0001309	L0001310	L0001311	L0001312	L0001313	L0001314
SRCGROUP	SRCGP1	L0001315	L0001316	L0001317	L0001318	L0001319	L0001320
SRCGROUP	SRCGP1	L0001321	L0001322	L0001323	L0001324	L0001325	L0001326

SRCGROUP	SRCGP1	L0001327	L0001328	L0001329	L0001330	L0001331	L0001332
SRCGROUP	SRCGP1	L0001333	L0001334	L0001335	L0001336	L0001337	L0001338
SRCGROUP	SRCGP1	L0001339	L0001340	L0001341	L0001342	L0001343	L0001344
SRCGROUP	SRCGP1	L0001345	L0001346	L0001347	L0001348	L0001349	L0001350
SRCGROUP	SRCGP1	L0001351	L0001352	L0001353	L0001354	L0001355	L0001356
SRCGROUP	SRCGP1	L0001357	L0001358	L0001359	L0001360	L0001361	L0001362
SRCGROUP	SRCGP1	L0001363	L0001364	L0001365	L0001366	L0001367	L0001368
SRCGROUP	SRCGP1	L0001369	L0001370	L0001371	L0001372	L0001373	L0001374
SRCGROUP	SRCGP1	L0001375	L0001376	L0001377	L0001378	L0001379	L0001380
SRCGROUP	SRCGP1	L0001381	L0001382	L0001383	L0001384	L0001385	L0001386
SRCGROUP	SRCGP1	L0001387	L0001388	L0001389	L0001390	L0001391	L0001392
SRCGROUP	SRCGP1	L0001393	L0001394	L0001395	L0001396	L0001397	L0001398
SRCGROUP	SRCGP1	L0001399	L0001400	L0001401	L0001402	L0001403	L0001404
SRCGROUP	SRCGP1	L0001405	L0001406	L0001407	L0001408	L0001409	L0001410
SRCGROUP	SRCGP1	L0001411	L0001412	L0001413	L0001414	L0001415	L0001416
SRCGROUP	SRCGP1	L0001417	L0001418	L0001419	L0001420	L0001421	L0001422
SRCGROUP	SRCGP1	L0001423	L0001424	L0001425	L0001426	L0001427	L0001428
SRCGROUP	SRCGP1	L0001429	L0001430	L0001431	L0001432	L0001433	L0001434
SRCGROUP	SRCGP1	L0001435	L0001436	L0001437	L0001438	L0001439	L0001440
SRCGROUP	SRCGP1	L0001441	L0001442	L0001443	L0001444	L0001445	L0001446
SRCGROUP	SRCGP1	L0001447	L0001448	L0001449	L0001450	L0001451	L0001452
SRCGROUP	SRCGP1	L0001453	L0001454	L0001455	L0001456	L0001457	L0001458
SRCGROUP	SRCGP1	L0001459	L0001460	L0001461	L0001462	L0001463	L0001464
SRCGROUP	SRCGP1	L0001465	L0001466	L0001467	L0001468	L0001469	L0001470
SRCGROUP	SRCGP1	L0001471	L0001472	L0001473	L0001474	L0001475	L0001476
SRCGROUP	SRCGP1	L0001477	L0001478	L0001479	L0001480	L0001481	L0001482
SRCGROUP	SRCGP1	L0001483	L0001484	L0001485	L0001486	L0001487	L0001488
SRCGROUP	SRCGP1	L0001489	L0001490	L0001491	L0001492	L0001493	L0001494
SRCGROUP	SRCGP1	L0001495	L0001496	L0001497	L0001498	L0001499	L0001500
SRCGROUP	SRCGP1	L0001501	L0001502	L0001503	L0001504	L0001505	L0001506
SRCGROUP	SRCGP1	L0001507	L0001508	L0001509	L0001510	L0001511	L0001512
SRCGROUP	SRCGP1	L0001513	L0001514	L0001515	L0001516	L0001517	L0001518
SRCGROUP	SRCGP1	L0001519	L0001520	L0001521	L0001522	L0001523	L0001524
SRCGROUP	SRCGP1	L0001525	L0001526	L0001527	L0001528	L0001529	L0001530
SRCGROUP	SRCGP1	L0001531	L0001532	L0001533	L0001534	L0001535	L0001536
SRCGROUP	SRCGP1	L0001537	L0001538	L0001539	L0001540	L0001541	L0001542
SRCGROUP	SRCGP1	L0001543	L0001544	L0001545	L0001546	L0001547	L0001548
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SRCGROUP	SRCGP1	L0001555	L0001556	L0001557	L0001558	L0001559	L0001560
SRCGROUP	SRCGP1	L0001561	L0001562	L0001563	L0001564	L0001565	L0001566
SRCGROUP	SRCGP1	L0001567	L0001568	L0001569	L0001570	L0001571	L0001572
SRCGROUP	SRCGP1	L0001573	L0001574	L0001575	L0001576	L0001577	L0001578
SRCGROUP	SRCGP1	L0001579	L0001580	L0001581	L0001582	L0001583	L0001584
SRCGROUP	SRCGP1	L0001585	L0001586	L0001587	L0001588	L0001589	L0001590
SRCGROUP	SRCGP1	L0001591	L0001592	L0001593	L0001594	L0001595	L0001596
SRCGROUP	SRCGP1	L0001597	L0001598	L0001599	L0001600	L0001601	L0001602
SRCGROUP	SRCGP1	L0001603	L0001604	L0001605	L0001606	L0001607	L0001608
SRCGROUP	SRCGP1	L0001609	L0001610	L0001611	L0001612	L0001613	L0001614
SRCGROUP	SRCGP1	L0001615	L0001616	L0001617	L0001618	L0001619	L0001620
SRCGROUP	SRCGP1	L0001621	L0001622	L0001623	L0001624	L0001625	L0001626
SRCGROUP	SRCGP1	L0001627	L0001628	L0001629	L0001630	L0001631	L0001632
SRCGROUP	SRCGP1	L0001633	L0001634	L0001635	L0001636	L0001637	L0001638
SRCGROUP	SRCGP1	L0001639	L0001640	L0001641	L0001642	L0001643	L0001644
SRCGROUP	SRCGP1	L0001645	L0001646	L0001647	L0001648	L0001649	L0001650
SRCGROUP	SRCGP1	L0001651	L0001652	L0001653	L0001654	L0001655	L0001656
SRCGROUP	SRCGP1	L0001657	L0001658	L0001659	L0001660	L0001661	L0001662
SRCGROUP	SRCGP1	L0001663	L0001664	L0001665	L0001666	L0001667	L0001668
SRCGROUP	SRCGP1	L0001669	L0001670	L0001671	L0001672	L0001673	L0001674
SRCGROUP	SRCGP1	L0001675	L0001676	L0001677	L0001678	L0001679	L0001680
SRCGROUP	SRCGP1	L0001681	L0001682	L0001683	L0001684	L0001685	L0001686
SRCGROUP	SRCGP1	L0001687	L0001688	L0001689	L0001690	L0001691	L0001692
SRCGROUP	SRCGP1	L0001693	L0001694	L0001695	L0001696	L0001697	L0001698
SRCGROUP	SRCGP1	L0001699	L0001700	L0001701	L0001702	L0001703	L0001704
SRCGROUP	SRCGP1	L0001705	L0001706	L0001707	L0001708	L0001709	L0001710
SRCGROUP	SRCGP1	L0001711	L0001712	L0001713	L0001714	L0001715	L0001716
SRCGROUP	SRCGP1	L0001717	L0001718	L0001719	L0001720	L0001721	L0001722
SRCGROUP	SRCGP1	L0001723	L0001724	L0001725	L0001726	L0001727	L0001728
SRCGROUP	SRCGP1	L0001729	L0001730	L0001731	L0001732	L0001733	L0001734
SRCGROUP	SRCGP1	L0001735	L0001736	L0001737	L0001738	L0001739	L0001740
SRCGROUP	SRCGP1	L0001741	L0001742	L0001743	L0001744	L0001745	L0001746
SRCGROUP	SRCGP1	L0001747	L0001748	L0001749	L0001750	L0001751	L0001752
SRCGROUP	SRCGP1	L0001753	L0001754	L0001755	L0001756	L0001757	L0001758
SRCGROUP	SRCGP1	L0001759	L0001760	L0001761	L0001762	L0001763	L0001764
SRCGROUP	SRCGP1	L0001765	L0001766	L0001767	L0001768	L0001769	L0001770
SRCGROUP	SRCGP1	L0001771	L0001772	L0001773	L0001774	L0001775	L0001776
SRCGROUP	SRCGP1	L0001777	L0001778	L0001779	L0001780	L0001781	L0001782

SRCGROUP	SRCGP1	L0001783	L0001784	L0001785	L0001786	L0001787	L0001788
SRCGROUP	SRCGP1	L0001789	L0001790	L0001791	L0001792	L0001793	L0001794
SRCGROUP	SRCGP1	L0001795	L0001796	L0001797	L0001798	L0001799	L0001800
SRCGROUP	SRCGP1	L0001801	L0001802	L0001803	L0001804	L0001805	L0001806
SRCGROUP	SRCGP1	L0001807	L0001808	L0001809	L0001810	L0001811	L0001812
SRCGROUP	SRCGP1	L0001813	L0001814	L0001815	L0001816	L0001817	L0001818
SRCGROUP	SRCGP1	L0001819	L0001820	L0001821	L0001822	L0001823	L0001824
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SRCGROUP	SRCGP1	L0001831	L0001832	L0001833	L0001834	L0001835	L0001836
SRCGROUP	SRCGP1	L0001837	L0001838	L0001839	L0001840	L0001841	L0001842
SRCGROUP	SRCGP1	L0001843	L0001844	L0001845	L0001846	L0001847	L0001848
SRCGROUP	SRCGP1	L0001849	L0001850	L0001851	L0001852	L0001853	L0001854
SRCGROUP	SRCGP1	L0001855	L0001856	L0001857	L0001858	L0001859	L0001860
SRCGROUP	SRCGP1	L0001861	L0001862	L0001863	L0001864	L0001865	L0001866
SRCGROUP	SRCGP1	L0001867	L0001868	L0001869	L0001870	L0001871	L0001872
SRCGROUP	SRCGP1	L0001873	L0001874	L0001875	L0001876	L0001877	L0001878
SRCGROUP	SRCGP1	L0001879	L0001880	L0001881	L0001882	L0001883	L0001884
SRCGROUP	SRCGP1	L0001885	L0001886	L0001887	L0001888	L0001889	L0001890
SRCGROUP	SRCGP1	L0001891	L0001892	L0001893	L0001894	L0001895	L0001896
SRCGROUP	SRCGP1	L0001897	L0001898	L0001899	L0001900	L0001901	L0001902
SRCGROUP	SRCGP1	L0001903	L0001904	L0001905	L0001906	L0001907	L0001908
SRCGROUP	SRCGP1	L0001909	L0001910	L0001911	L0001912	L0001913	L0001914
SRCGROUP	SRCGP1	L0001915	L0001916	L0001917	L0001918	L0001919	L0001920
SRCGROUP	SRCGP1	L0001921	L0001922	L0001923	L0001924	L0001925	L0001926
SRCGROUP	SRCGP1	L0001927	L0001928	L0001929	L0001930	L0001931	L0001932
SRCGROUP	SRCGP1	L0001933	L0001934	L0001935	L0001936	L0001937	L0001938
SRCGROUP	SRCGP1	L0001939	L0001940	L0001941	L0001942	L0001943	L0001944
SRCGROUP	SRCGP1	L0001945	L0001946	L0001947	L0001948	L0001949	L0001950
SRCGROUP	SRCGP1	L0001951	L0001952	L0001953	L0001954	L0001955	L0001956
SRCGROUP	SRCGP1	L0001957	L0001958	L0001959	L0001960	L0001961	L0001962
SRCGROUP	SRCGP1	L0001963	L0001964	L0001965	L0001966	L0001967	L0001968
SRCGROUP	SRCGP1	L0001969	L0001970	L0001971	L0001972	L0001973	L0001974
SRCGROUP	SRCGP1	L0001975	L0001976	L0001977	L0001978	L0001979	L0001980
SRCGROUP	SRCGP1	L0001981	L0001982	L0001983	L0001984	L0001985	L0001986
SRCGROUP	SRCGP1	L0001987	L0001988	L0001989	L0001990	L0001991	L0001992
SRCGROUP	SRCGP1	L0001993	L0001994	L0001995	L0001996	L0001997	L0001998
SRCGROUP	SRCGP1	L0001999	L0002000	L0002001	L0002002	L0002003	L0002004
SRCGROUP	SRCGP1	L0002005	L0002006	L0002007	L0002008	L0002009	L0002010

SRCGROUP	SRCGP1	L0002011	L0002012	L0002013	L0002014	L0002015	L0002016
SRCGROUP	SRCGP1	L0002017	L0002018	L0002019	L0002020	L0002021	L0002022
SRCGROUP	SRCGP1	L0002023	L0002024	L0002025	L0002026	L0002027	L0002028
SRCGROUP	SRCGP1	L0002029	L0002030	L0002031	L0002032	L0002033	L0002034
SRCGROUP	SRCGP1	L0002035	L0002036	L0002037	L0002038	L0002039	L0002040
SRCGROUP	SRCGP1	L0002041	L0002042	L0002043	L0002044	L0002045	L0002046
SRCGROUP	SRCGP1	L0002047	L0002048	L0002049	L0002050	L0002051	L0002052
SRCGROUP	SRCGP1	L0002053	L0002054	L0002055	L0002056	L0002057	L0002058
SRCGROUP	SRCGP1	L0002059	L0002060	L0002061	L0002062	L0002063	L0002064
SRCGROUP	SRCGP1	L0002065	L0002066	L0002067	L0002068	L0002069	L0002070
SRCGROUP	SRCGP1	L0002071	L0002072	L0002073	L0002074	L0002075	L0002076
SRCGROUP	SRCGP1	L0002077	L0002078	L0002079	L0002080	L0002081	L0002082
SRCGROUP	SRCGP1	L0002083	L0002084	L0002085	L0002086	L0002087	L0002088
SRCGROUP	SRCGP1	L0002089	L0002090	L0002091	L0002092	L0002093	L0002094
SRCGROUP	SRCGP1	L0002095	L0002096	L0002097	L0002098	L0002099	L0002100
SRCGROUP	SRCGP1	L0002101	L0002102	L0002103	L0002104	L0002105	L0002106
SRCGROUP	SRCGP1	L0002107	L0002108	L0002109	L0002110	L0002111	L0002112
SRCGROUP	SRCGP1	L0002113	L0002114	L0002115	L0002116	L0002117	L0002118
SRCGROUP	SRCGP1	L0002119	L0002120	L0002121	L0002122	L0002123	L0002124
SRCGROUP	SRCGP1	L0002125	L0002126	L0002127	L0002128	L0002129	L0002130
SRCGROUP	SRCGP1	L0002131	L0002132	L0002133	L0002134	L0002135	L0002136
SRCGROUP	SRCGP1	L0002137	L0002138	L0002139	L0002140	L0002141	L0002142
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SRCGROUP	SRCGP1	L0002161	L0002162	L0002163	L0002164	L0002165	L0002166
SRCGROUP	SRCGP1	L0002167	L0002168	L0002169	L0002170	L0002171	L0002172
SRCGROUP	SRCGP1	L0002173	L0002174	L0002175	L0002176	L0002177	L0002178
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SRCGROUP	SRCGP1	L0002197	L0002198	L0002199	L0002200	L0002201	L0002202
SRCGROUP	SRCGP1	L0002203	L0002204	L0002205	L0002206	L0002207	L0002208
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SRCGROUP	SRCGP1	L0002215	L0002216	L0002217	L0002218	L0002219	L0002220
SRCGROUP	SRCGP1	L0002221	L0002222	L0002223	L0002224	L0002225	L0002226
SRCGROUP	SRCGP1	L0002227	L0002228	L0002229	L0002230	L0002231	L0002232
SRCGROUP	SRCGP1	L0002233	L0002234	L0002235	L0002236	L0002237	L0002238

SRCGROUP	SRCGP1	L0002239	L0002240	L0002241	L0002242	L0002243	L0002244
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SRCGROUP	SRCGP1	L0002251	L0002252	L0002253	L0002254	L0002255	L0002256
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SRCGROUP	SRCGP1	L0002263	L0002264	L0002265	L0002266	L0002267	L0002268
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SRCGROUP	SRCGP1	L0002275	L0002276	L0002277	L0002278	L0002279	L0002280
SRCGROUP	SRCGP1	L0002281	L0002282	L0002283	L0002284	L0002285	L0002286
SRCGROUP	SRCGP1	L0002287	L0002288	L0002289	L0002290	L0002291	L0002292
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SRCGROUP	SRCGP1	L0002407	L0002408	L0002409	L0002410	L0002411	L0002412
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SRCGROUP	SRCGP1	L0002419	L0002420	L0002421	L0002422	L0002423	L0002424
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SRCGROUP	SRCGP1	L0002449	L0002450	L0002451	L0002452	L0002453	L0002454
SRCGROUP	SRCGP1	L0002455	L0002456	L0002457	L0002458	L0002459	L0002460
SRCGROUP	SRCGP1	L0002461	L0002462	L0002463	L0002464	L0002465	L0002466

SRCGROUP	SRCGP1	L0002467	L0002468	L0002469	L0002470	L0002471	L0002472
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SRCGROUP	SRCGP1	L0002479	L0002480	L0002481	L0002482	L0002483	L0002484
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SRCGROUP	SRCGP1	L0002935	L0002936	L0002937	L0002938	L0002939	L0002940
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SRCGROUP	SRCGP1	L0003109	L0003110	L0003111	L0003112	L0003113	L0003114
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SRCGROUP	SRCGP1	L0003121	L0003122	L0003123	L0003124	L0003125	L0003126
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SRCGROUP	SRCGP1	L0003133	L0003134	L0003135	L0003136	L0003137	L0003138
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SRCGROUP	SRCGP1	L0003277	L0003278	L0003279	L0003280	L0003281	L0003282
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SRCGROUP	SRCGP1	L0003337	L0003338	L0003339	L0003340	L0003341	L0003342
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SRCGROUP	SRCGP1	L0003349	L0003350	L0003351	L0003352	L0003353	L0003354
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SRCGROUP	SRCGP1	L0003391	L0003392	L0003393	L0003394	L0003395	L0003396
SRCGROUP	SRCGP1	L0003397	L0003398	L0003399	L0003400	L0003401	L0003402
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SRCGROUP	SRCGP1	L0003433	L0003434	L0003435	L0003436	L0003437	L0003438
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SRCGROUP	SRCGP1	L0003457	L0003458	L0003459	L0003460	L0003461	L0003462
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SRCGROUP	SRCGP1	L0003469	L0003470	L0003471	L0003472	L0003473	L0003474
SRCGROUP	SRCGP1	L0003475	L0003476	L0003477	L0003478	L0003479	L0003480
SRCGROUP	SRCGP1	L0003481	L0003482	L0003483	L0003484	L0003485	L0003486
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SRCGROUP	SRCGP1	L0003511	L0003512	L0003513	L0003514	L0003515	L0003516
SRCGROUP	SRCGP1	L0003517	L0003518	L0003519	L0003520	L0003521	L0003522
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SRCGROUP	SRCGP1	L0003547	L0003548	L0003549	L0003550	L0003551	L0003552
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SRCGROUP	SRCGP1	L0003559	L0003560	L0003561	L0003562	L0003563	L0003564
SRCGROUP	SRCGP1	L0003565	L0003566	L0003567	L0003568	L0003569	L0003570
SRCGROUP	SRCGP1	L0003571	L0003572	L0003573	L0003574	L0003575	L0003576
SRCGROUP	SRCGP1	L0003577	L0003578	L0003579	L0003580	L0003581	L0003582
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SRCGROUP	SRCGP1	L0003595	L0003596	L0003597	L0003598	L0003599	L0003600
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SRCGROUP	SRCGP1	L0003937	L0003938	L0003939	L0003940	L0003941	L0003942
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SRCGROUP	SRCGP1	L0004327	L0004328	L0004329	L0004330	L0004331	L0004332
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SRCGROUP	SRCGP1	L0004729	L0004730	L0004731	L0004732	L0004733	L0004734
SRCGROUP	SRCGP1	L0004735	L0004736	L0004737	L0004738	L0004739	L0004740
SRCGROUP	SRCGP1	L0004741	L0004742	L0004743	L0004744	L0004745	L0004746

SRCGROUP	SRCGP1	L0004747	L0004748	L0004749	L0004750	L0004751	L0004752
SRCGROUP	SRCGP1	L0004753	L0004754	L0004755	L0004756	L0004757	L0004758
SRCGROUP	SRCGP1	L0004759	L0004760	L0004761	L0004762	L0004763	L0004764
SRCGROUP	SRCGP1	L0004765	L0004766	L0004767	L0004768	L0004769	L0004770
SRCGROUP	SRCGP1	L0004771	L0004772	L0004773	L0004774	L0004775	L0004776
SRCGROUP	SRCGP1	L0004777	L0004778	L0004779	L0004780	L0004781	L0004782
SRCGROUP	SRCGP1	L0004783	L0004784	L0004785	L0004786	L0004787	L0004788
SRCGROUP	SRCGP1	L0004789	L0004790	L0004791	L0004792	L0004793	L0004794
SRCGROUP	SRCGP1	L0004795	L0004796	L0004797	L0004798	L0004799	L0004800
SRCGROUP	SRCGP1	L0004801	L0004802	L0004803	L0004804	L0004805	L0004806
SRCGROUP	SRCGP1	L0004807	L0004808	L0004809	L0004810	L0004811	L0004812
SRCGROUP	SRCGP1	L0004813	L0004814	L0004815	L0004816	L0004817	L0004818
SRCGROUP	SRCGP1	L0004819	L0004820	L0004821	L0004822	L0004823	L0004824
SRCGROUP	SRCGP1	L0004825	L0004826	L0004827	L0004828	L0004829	L0004830
SRCGROUP	SRCGP1	L0004831	L0004832	L0004833	L0004834	L0004835	L0004836
SRCGROUP	SRCGP1	L0004837	L0004838	L0004839	L0004840	L0004841	L0004842
SRCGROUP	SRCGP1	L0004843	L0004844	L0004845	L0004846	L0004847	L0004848
SRCGROUP	SRCGP1	L0004849	L0004850	L0004851	L0004852	L0004853	L0004854
SRCGROUP	SRCGP1	L0004855	L0004856	L0004857	L0004858	L0004859	L0004860
SRCGROUP	SRCGP1	L0004861	L0004862	L0004863	L0004864	L0004865	L0004866
SRCGROUP	SRCGP1	L0004867	L0004868	L0004869	L0004870	L0004871	L0004872
SRCGROUP	SRCGP1	L0004873	L0004874	L0004875	L0004876	L0004877	L0004878
SRCGROUP	SRCGP1	L0004879	L0004880	L0004881	L0004882	L0004883	L0004884
SRCGROUP	SRCGP1	L0004885	L0004886	L0004887	L0004888	L0004889	L0004890
SRCGROUP	SRCGP1	L0004891	L0004892	L0004893	L0004894	L0004895	L0004896
SRCGROUP	SRCGP1	L0004897	L0004898	L0004899	L0004900	L0004901	L0004902
SRCGROUP	SRCGP1	L0004903	L0004904	L0004905	L0004906	L0004907	L0004908
SRCGROUP	SRCGP1	L0004909	L0004910	L0004911	L0004912	L0004913	L0004914
SRCGROUP	SRCGP1	L0004915	L0004916	L0004917	L0004918	L0004919	L0004920
SRCGROUP	SRCGP1	L0004921	L0004922	L0004923	L0004924	L0004925	L0004926
SRCGROUP	SRCGP1	L0004927	L0004928	L0004929	L0004930	L0004931	L0004932
SRCGROUP	SRCGP1	L0004933	L0004934	L0004935	L0004936	L0004937	L0004938
SRCGROUP	SRCGP1	L0004939	L0004940	L0004941	L0004942	L0004943	L0004944
SRCGROUP	SRCGP1	L0004945	L0004946	L0004947	L0004948	L0004949	L0004950
SRCGROUP	SRCGP1	L0004951	L0004952	L0004953	L0004954	L0004955	L0004956
SRCGROUP	SRCGP1	L0004957	L0004958	L0004959	L0004960	L0004961	L0004962
SRCGROUP	SRCGP1	L0004963	L0004964	L0004965	L0004966	L0004967	L0004968
SRCGROUP	SRCGP1	L0004969	L0004970	L0004971	L0004972	L0004973	L0004974

SRCGROUP	SRCGP1	L0004975	L0004976	L0004977	L0004978	L0004979	L0004980
SRCGROUP	SRCGP1	L0004981	L0004982	L0004983	L0004984	L0004985	L0004986
SRCGROUP	SRCGP1	L0004987	L0004988	L0004989	L0004990	L0004991	L0004992
SRCGROUP	SRCGP1	L0004993	L0004994	L0004995	L0004996	L0004997	L0004998
SRCGROUP	SRCGP1	L0004999	L0005000	L0005001	L0005002	L0005003	L0005004
SRCGROUP	SRCGP1	L0005005	L0005006	L0005007	L0005008	L0005009	L0005010
SRCGROUP	SRCGP1	L0005011	L0005012	L0005013	L0005014	L0005015	L0005016
SRCGROUP	SRCGP1	L0005017	L0005018	L0005019	L0005020	L0005021	L0005022
SRCGROUP	SRCGP1	L0005023	L0005024	L0005025	L0005026	L0005027	L0005028
SRCGROUP	SRCGP1	L0005029	L0005030	L0005031	L0005032	L0005033	L0005034
SRCGROUP	SRCGP1	L0005035	L0005036	L0005037	L0005038	L0005039	L0005040
SRCGROUP	SRCGP1	L0005041	L0005042	L0005043	L0005044	L0005045	L0005046
SRCGROUP	SRCGP1	L0005047	L0005048	L0005049	L0005050	L0005051	L0005052
SRCGROUP	SRCGP1	L0005053	L0005054	L0005055	L0005056	L0005057	L0005058
SRCGROUP	SRCGP1	L0005059	L0005060	L0005061	L0005062	L0005063	L0005064
SRCGROUP	SRCGP1	L0005065	L0005066	L0005067	L0005068	L0005069	L0005070
SRCGROUP	SRCGP1	L0005071	L0005072	L0005073	L0005074	L0005075	L0005076
SRCGROUP	SRCGP1	L0005077	L0005078	L0005079	L0005080	L0005081	L0005082
SRCGROUP	SRCGP1	L0005083	L0005084	L0005085	L0005086	L0005087	L0005088
SRCGROUP	SRCGP1	L0005089	L0005090	L0005091	L0005092	L0005093	L0005094
SRCGROUP	SRCGP1	L0005095	L0005096	L0005097	L0005098	L0005099	L0005100
SRCGROUP	SRCGP1	L0005101	L0005102	L0005103	L0005104	L0005105	L0005106
SRCGROUP	SRCGP1	L0005107	L0005108	L0005109	L0005110	L0005111	L0005112
SRCGROUP	SRCGP1	L0005113	L0005114	L0005115	L0005116	L0005117	L0005118
SRCGROUP	SRCGP1	L0005119	L0005120	L0005121	L0005122	L0005123	L0005124
SRCGROUP	SRCGP1	L0005125	L0005126	L0005127	L0005128	L0005129	L0005130
SRCGROUP	SRCGP1	L0005131	L0005132	L0005133	L0005134	L0005135	L0005136
SRCGROUP	SRCGP1	L0005137	L0005138	L0005139	L0005140	L0005141	L0005142
SRCGROUP	SRCGP1	L0005143	L0005144	L0005145	L0005146	L0005147	L0005148
SRCGROUP	SRCGP1	L0005149	L0005150	L0005151	L0005152	L0005153	L0005154
SRCGROUP	SRCGP1	L0005155	L0005156	L0005157	L0005158	L0005159	L0005160
SRCGROUP	SRCGP1	L0005161	L0005162	L0005163	L0005164	L0005165	L0005166
SRCGROUP	SRCGP1	L0005167					
SRCGROUP	SRCGP2	STCK1					
SRCGROUP	ALL						

SO FINISHED

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** ISCST3 Receptor Pathway
*****
**
**
RE STARTING
** DESCRREC "" ""
DISCCART 563595.11 4183387.30 3.53
DISCCART 563614.26 4183379.53 2.99
DISCCART 563635.20 4183371.75 1.99
DISCCART 563590.33 4183374.74 3.89
DISCCART 563607.68 4183366.96 3.20
DISCCART 563628.02 4183356.79 2.37
DISCCART 563584.34 4183360.38 4.00
DISCCART 563601.69 4183351.40 3.81
DISCCART 563621.44 4183339.44 2.21
DISCCART 563578.36 4183341.83 3.96
DISCCART 563593.92 4183332.26 3.83
DISCCART 563612.46 4183324.48 3.94
DISCCART 564031.91 4183151.55 -0.24
DISCCART 564043.88 4183146.76 -0.39
DISCCART 564054.05 4183143.17 0.30
DISCCART 564022.94 4183137.79 -1.85
DISCCART 564037.90 4183133.00 -1.13
DISCCART 564048.07 4183126.42 0.13
DISCCART 564016.36 4183125.82 -1.00
DISCCART 564027.72 4183121.03 -1.42
DISCCART 564040.89 4183114.45 -0.85
DISCCART 564009.18 4183113.26 -1.58
DISCCART 564022.94 4183108.47 -1.29
DISCCART 564036.10 4183103.68 -0.79
DISCCART 564002.59 4183103.68 -2.00
DISCCART 564013.96 4183097.70 -1.52
DISCCART 564028.32 4183092.31 -0.79
RE FINISHED
**
*****
** ISCST3 Meteorology Pathway
*****

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**

**

ME STARTING

INPUTFIL POK98600.ASC

ANEMHGHT 10 METERS

SURFDATA 1805 1998

UAIRDATA 1805 1998

ME FINISHED

**

** ISCST3 Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 1 1ST

** Auto-Generated Plotfiles

PLOTFILE 1 ALL 1ST jls.IS\01H1GALL.PLT

PLOTFILE 1 SRCGP1 1ST jls.IS\01H1G001.PLT

PLOTFILE 1 SRCGP2 1ST jls.IS\01H1G002.PLT

PLOTFILE PERIOD ALL jls.IS\PE00GALL.PLT

PLOTFILE PERIOD SRCGP1 jls.IS\PE00G001.PLT

PLOTFILE PERIOD SRCGP2 jls.IS\PE00G002.PLT

OU FINISHED

*** Message Summary For ISC3 Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 1 Warning Message(s)

A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***


```
***** WARNING MESSAGES *****
RE W282 11358 CHK_EL:RecElev < SrcBase; See non-DFAULT HE>ZI option in MCB#9

*****
*** SETUP Finishes Successfully ***
*****
```

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**MODELOPTs:

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CONC RURAL ELEV DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- - - - -
- - - - -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**NO GAS DRY DEPOSITION Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:

1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Accepts Receptors on ELEV Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 5168 Source(s); 3 Source Group(s); and 27 Receptor(s)

**The Model Assumes A Pollutant Type of: CO

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit

Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 11.4 MB of RAM.

**Input Runstream File: jls.INP

**Output Print File: jls.OUT

**File for Saving Result Arrays: jls.svl

* * *

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**MODELOPTs:
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CONC

RURAL ELEV

DEFAULT

*** POINT SOURCE DATA ***

BUILDING EMISSION RATE					BASE	STACK	STACK	STACK	STACK
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	TEMP.	EXIT VEL.	DIAMETER
EXISTS	SCALAR	VARY							
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(DEG.K)	(M/SEC)	(METERS)
BY									

STCK1	0	0.35800E-02	563373.7	4183261.2	0.0	7.62	449.82	25.87	0.31
NO	SHRDOW								

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000001	0	0.72900E-06	563249.6	4183584.0	-0.6	10.00	0.12	4.65	
L0000002	0	0.72900E-06	563249.8	4183584.0	-0.6	10.00	0.12	4.65	
L0000003	0	0.72900E-06	563250.0	4183583.8	-0.5	10.00	0.12	4.65	
L0000004	0	0.72900E-06	563250.2	4183583.8	-0.5	10.00	0.12	4.65	
L0000005	0	0.72900E-06	563250.4	4183583.5	-0.4	10.00	0.12	4.65	
L0000006	0	0.72900E-06	563250.7	4183583.5	-0.4	10.00	0.12	4.65	
L0000007	0	0.72900E-06	563250.9	4183583.2	-0.4	10.00	0.12	4.65	
L0000008	0	0.72900E-06	563251.1	4183583.2	-0.4	10.00	0.12	4.65	
L0000009	0	0.72900E-06	563251.3	4183583.0	-0.3	10.00	0.12	4.65	
L0000010	0	0.72900E-06	563251.6	4183583.0	-0.3	10.00	0.12	4.65	
L0000011	0	0.72900E-06	563251.8	4183583.0	-0.3	10.00	0.12	4.65	
L0000012	0	0.72900E-06	563252.0	4183582.8	-0.3	10.00	0.12	4.65	
L0000013	0	0.72900E-06	563252.2	4183582.8	-0.3	10.00	0.12	4.65	
L0000014	0	0.72900E-06	563252.4	4183582.5	-0.2	10.00	0.12	4.65	
L0000015	0	0.72900E-06	563252.7	4183582.5	-0.2	10.00	0.12	4.65	
L0000016	0	0.72900E-06	563252.9	4183582.2	-0.2	10.00	0.12	4.65	
L0000017	0	0.72900E-06	563253.1	4183582.2	-0.2	10.00	0.12	4.65	
L0000018	0	0.72900E-06	563253.3	4183582.0	-0.2	10.00	0.12	4.65	
L0000019	0	0.72900E-06	563253.6	4183582.0	-0.2	10.00	0.12	4.65	
L0000020	0	0.72900E-06	563253.8	4183581.8	-0.1	10.00	0.12	4.65	

L0000021	0	0.72900E-06	563254.0	4183581.8	-0.1	10.00	0.12	4.65
L0000022	0	0.72900E-06	563254.2	4183581.8	-0.1	10.00	0.12	4.65
L0000023	0	0.72900E-06	563254.4	4183581.5	-0.1	10.00	0.12	4.65
L0000024	0	0.72900E-06	563254.7	4183581.5	-0.1	10.00	0.12	4.65
L0000025	0	0.72900E-06	563254.9	4183581.2	0.0	10.00	0.12	4.65
L0000026	0	0.72900E-06	563255.1	4183581.2	0.0	10.00	0.12	4.65
L0000027	0	0.72900E-06	563255.4	4183581.0	0.0	10.00	0.12	4.65
L0000028	0	0.72900E-06	563255.6	4183581.0	0.0	10.00	0.12	4.65
L0000029	0	0.72900E-06	563255.8	4183580.8	0.0	10.00	0.12	4.65
L0000030	0	0.72900E-06	563256.0	4183580.8	0.2	10.00	0.12	4.65
L0000031	0	0.72900E-06	563256.3	4183580.8	0.2	10.00	0.12	4.65
L0000032	0	0.72900E-06	563256.4	4183580.5	0.2	10.00	0.12	4.65
L0000033	0	0.72900E-06	563256.7	4183580.5	0.2	10.00	0.12	4.65
L0000034	0	0.72900E-06	563256.9	4183580.3	0.2	10.00	0.12	4.65
L0000035	0	0.72900E-06	563257.1	4183580.3	0.2	10.00	0.12	4.65
L0000036	0	0.72900E-06	563257.4	4183580.0	0.2	10.00	0.12	4.65
L0000037	0	0.72900E-06	563257.6	4183580.0	0.2	10.00	0.12	4.65
L0000038	0	0.72900E-06	563257.8	4183579.8	0.2	10.00	0.12	4.65
L0000039	0	0.72900E-06	563258.0	4183579.8	0.2	10.00	0.12	4.65
L0000040	0	0.72900E-06	563258.2	4183579.5	0.3	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000041	0	0.72900E-06	563258.5	4183579.5	0.3	10.00	0.12	4.65	
L0000042	0	0.72900E-06	563258.7	4183579.5	0.3	10.00	0.12	4.65	
L0000043	0	0.72900E-06	563258.9	4183579.2	0.3	10.00	0.12	4.65	
L0000044	0	0.72900E-06	563259.1	4183579.2	0.3	10.00	0.12	4.65	
L0000045	0	0.72900E-06	563259.4	4183579.0	0.3	10.00	0.12	4.65	
L0000046	0	0.72900E-06	563259.6	4183579.0	0.3	10.00	0.12	4.65	
L0000047	0	0.72900E-06	563259.8	4183578.8	0.3	10.00	0.12	4.65	
L0000048	0	0.72900E-06	563260.0	4183578.8	0.3	10.00	0.12	4.65	
L0000049	0	0.72900E-06	563260.2	4183578.5	0.3	10.00	0.12	4.65	
L0000050	0	0.72900E-06	563260.5	4183578.5	0.3	10.00	0.12	4.65	
L0000051	0	0.72900E-06	563260.7	4183578.2	0.3	10.00	0.12	4.65	
L0000052	0	0.72900E-06	563260.9	4183578.2	0.3	10.00	0.12	4.65	
L0000053	0	0.72900E-06	563261.1	4183578.2	0.3	10.00	0.12	4.65	
L0000054	0	0.72900E-06	563261.4	4183578.0	0.3	10.00	0.12	4.65	
L0000055	0	0.72900E-06	563261.6	4183578.0	0.3	10.00	0.12	4.65	
L0000056	0	0.72900E-06	563261.8	4183577.8	0.3	10.00	0.12	4.65	
L0000057	0	0.72900E-06	563262.1	4183577.8	0.3	10.00	0.12	4.65	
L0000058	0	0.72900E-06	563262.2	4183577.5	0.3	10.00	0.12	4.65	
L0000059	0	0.72900E-06	563262.5	4183577.5	0.3	10.00	0.12	4.65	
L0000060	0	0.72900E-06	563262.7	4183577.2	0.3	10.00	0.12	4.65	

L0000061	0	0.72900E-06	563262.9	4183577.2	0.3	10.00	0.12	4.65
L0000062	0	0.72900E-06	563263.1	4183577.0	0.3	10.00	0.12	4.65
L0000063	0	0.72900E-06	563263.4	4183577.0	0.3	10.00	0.12	4.65
L0000064	0	0.72900E-06	563263.6	4183577.0	0.3	10.00	0.12	4.65
L0000065	0	0.72900E-06	563263.8	4183576.8	0.3	10.00	0.12	4.65
L0000066	0	0.72900E-06	563264.1	4183576.8	0.3	10.00	0.12	4.65
L0000067	0	0.72900E-06	563264.2	4183576.5	0.4	10.00	0.12	4.65
L0000068	0	0.72900E-06	563264.5	4183576.5	0.4	10.00	0.12	4.65
L0000069	0	0.72900E-06	563264.7	4183576.2	0.4	10.00	0.12	4.65
L0000070	0	0.72900E-06	563264.9	4183576.2	0.4	10.00	0.12	4.65
L0000071	0	0.72900E-06	563265.2	4183576.0	0.4	10.00	0.12	4.65
L0000072	0	0.72900E-06	563265.4	4183576.0	0.4	10.00	0.12	4.65
L0000073	0	0.72900E-06	563265.6	4183576.0	0.4	10.00	0.12	4.65
L0000074	0	0.72900E-06	563265.8	4183575.8	0.4	10.00	0.12	4.65
L0000075	0	0.72900E-06	563266.1	4183575.8	0.4	10.00	0.12	4.65
L0000076	0	0.72900E-06	563266.2	4183575.5	0.4	10.00	0.12	4.65
L0000077	0	0.72900E-06	563266.5	4183575.5	0.4	10.00	0.12	4.65
L0000078	0	0.72900E-06	563266.8	4183575.2	0.4	10.00	0.12	4.65
L0000079	0	0.72900E-06	563266.9	4183575.2	0.4	10.00	0.12	4.65
L0000080	0	0.72900E-06	563267.2	4183575.0	0.4	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000081	0	0.72900E-06	563267.4	4183575.0	0.4	10.00	0.12	4.65	
L0000082	0	0.72900E-06	563267.6	4183574.8	0.5	10.00	0.12	4.65	
L0000083	0	0.72900E-06	563267.8	4183574.8	0.4	10.00	0.12	4.65	
L0000084	0	0.72900E-06	563268.1	4183574.8	0.4	10.00	0.12	4.65	
L0000085	0	0.72900E-06	563268.2	4183574.5	0.5	10.00	0.12	4.65	
L0000086	0	0.72900E-06	563268.5	4183574.5	0.5	10.00	0.12	4.65	
L0000087	0	0.72900E-06	563268.8	4183574.3	0.5	10.00	0.12	4.65	
L0000088	0	0.72900E-06	563268.9	4183574.3	0.5	10.00	0.12	4.65	
L0000089	0	0.72900E-06	563269.2	4183574.0	0.5	10.00	0.12	4.65	
L0000090	0	0.72900E-06	563269.4	4183574.0	0.5	10.00	0.12	4.65	
L0000091	0	0.72900E-06	563269.6	4183573.8	0.5	10.00	0.12	4.65	
L0000092	0	0.72900E-06	563269.8	4183573.8	0.5	10.00	0.12	4.65	
L0000093	0	0.72900E-06	563270.1	4183573.5	0.5	10.00	0.12	4.65	
L0000094	0	0.72900E-06	563270.3	4183573.5	0.5	10.00	0.12	4.65	
L0000095	0	0.72900E-06	563270.5	4183573.5	0.5	10.00	0.12	4.65	
L0000096	0	0.72900E-06	563270.8	4183573.2	0.5	10.00	0.12	4.65	
L0000097	0	0.72900E-06	563270.9	4183573.2	0.5	10.00	0.12	4.65	
L0000098	0	0.72900E-06	563271.2	4183573.0	0.5	10.00	0.12	4.65	
L0000099	0	0.72900E-06	563271.4	4183573.0	0.5	10.00	0.12	4.65	
L0000100	0	0.72900E-06	563271.6	4183572.8	0.5	10.00	0.12	4.65	

L0000101	0	0.72900E-06	563271.9	4183572.8	0.5	10.00	0.12	4.65
L0000102	0	0.72900E-06	563272.1	4183572.5	0.5	10.00	0.12	4.65
L0000103	0	0.72900E-06	563272.3	4183572.5	0.5	10.00	0.12	4.65
L0000104	0	0.72900E-06	563272.5	4183572.2	0.5	10.00	0.12	4.65
L0000105	0	0.72900E-06	563272.8	4183572.2	0.5	10.00	0.12	4.65
L0000106	0	0.72900E-06	563272.9	4183572.2	0.5	10.00	0.12	4.65
L0000107	0	0.72900E-06	563273.2	4183572.0	0.5	10.00	0.12	4.65
L0000108	0	0.72900E-06	563273.4	4183572.0	0.5	10.00	0.12	4.65
L0000109	0	0.72900E-06	563273.6	4183571.8	0.5	10.00	0.12	4.65
L0000110	0	0.72900E-06	563273.9	4183571.8	0.5	10.00	0.12	4.65
L0000111	0	0.72900E-06	563274.1	4183571.5	0.5	10.00	0.12	4.65
L0000112	0	0.72900E-06	563274.3	4183571.5	0.5	10.00	0.12	4.65
L0000113	0	0.72900E-06	563274.5	4183571.2	0.5	10.00	0.12	4.65
L0000114	0	0.72900E-06	563274.8	4183571.2	0.5	10.00	0.12	4.65
L0000115	0	0.72900E-06	563275.0	4183571.2	0.5	10.00	0.12	4.65
L0000116	0	0.72900E-06	563275.2	4183571.0	0.5	10.00	0.12	4.65
L0000117	0	0.72900E-06	563275.4	4183571.0	0.5	10.00	0.12	4.65
L0000118	0	0.72900E-06	563275.6	4183570.8	0.5	10.00	0.12	4.65
L0000119	0	0.72900E-06	563275.9	4183570.8	0.4	10.00	0.12	4.65
L0000120	0	0.72900E-06	563276.1	4183570.5	0.4	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000121	0	0.72900E-06	563276.3	4183570.5	0.4	10.00	0.12	4.65	
L0000122	0	0.72900E-06	563276.5	4183570.2	0.4	10.00	0.12	4.65	
L0000123	0	0.72900E-06	563276.8	4183570.2	0.4	10.00	0.12	4.65	
L0000124	0	0.72900E-06	563277.0	4183570.0	0.4	10.00	0.12	4.65	
L0000125	0	0.72900E-06	563277.2	4183570.0	0.4	10.00	0.12	4.65	
L0000126	0	0.72900E-06	563277.4	4183570.0	0.4	10.00	0.12	4.65	
L0000127	0	0.72900E-06	563277.6	4183569.8	0.4	10.00	0.12	4.65	
L0000128	0	0.72900E-06	563277.9	4183569.8	0.4	10.00	0.12	4.65	
L0000129	0	0.72900E-06	563278.1	4183569.5	0.4	10.00	0.12	4.65	
L0000130	0	0.72900E-06	563278.3	4183569.5	0.4	10.00	0.12	4.65	
L0000131	0	0.72900E-06	563278.6	4183569.2	0.4	10.00	0.12	4.65	
L0000132	0	0.72900E-06	563278.8	4183569.2	0.4	10.00	0.12	4.65	
L0000133	0	0.72900E-06	563279.0	4183569.0	0.3	10.00	0.12	4.65	
L0000134	0	0.72900E-06	563279.2	4183569.0	0.3	10.00	0.12	4.65	
L0000135	0	0.72900E-06	563279.4	4183568.8	0.3	10.00	0.12	4.65	
L0000136	0	0.72900E-06	563279.6	4183568.8	0.3	10.00	0.12	4.65	
L0000137	0	0.72900E-06	563279.9	4183568.8	0.3	10.00	0.12	4.65	
L0000138	0	0.72900E-06	563280.1	4183568.5	0.3	10.00	0.12	4.65	
L0000139	0	0.72900E-06	563280.3	4183568.5	0.3	10.00	0.12	4.65	
L0000140	0	0.72900E-06	563280.6	4183568.2	0.3	10.00	0.12	4.65	

L0000141	0	0.72900E-06	563280.8	4183568.2	0.3	10.00	0.12	4.65
L0000142	0	0.72900E-06	563281.0	4183568.0	0.3	10.00	0.12	4.65
L0000143	0	0.72900E-06	563281.2	4183568.0	0.3	10.00	0.12	4.65
L0000144	0	0.72900E-06	563281.4	4183567.8	0.2	10.00	0.12	4.65
L0000145	0	0.72900E-06	563281.7	4183567.8	0.2	10.00	0.12	4.65
L0000146	0	0.72900E-06	563281.9	4183567.8	0.2	10.00	0.12	4.65
L0000147	0	0.72900E-06	563282.1	4183567.5	0.2	10.00	0.12	4.65
L0000148	0	0.72900E-06	563282.3	4183567.5	0.2	10.00	0.12	4.65
L0000149	0	0.72900E-06	563282.6	4183567.3	0.2	10.00	0.12	4.65
L0000150	0	0.72900E-06	563282.8	4183567.3	0.2	10.00	0.12	4.65
L0000151	0	0.72900E-06	563283.0	4183567.0	0.2	10.00	0.12	4.65
L0000152	0	0.72900E-06	563283.2	4183567.0	0.2	10.00	0.12	4.65
L0000153	0	0.72900E-06	563283.4	4183566.8	0.2	10.00	0.12	4.65
L0000154	0	0.72900E-06	563283.7	4183566.8	0.2	10.00	0.12	4.65
L0000155	0	0.72900E-06	563283.9	4183566.5	0.2	10.00	0.12	4.65
L0000156	0	0.72900E-06	563284.1	4183566.5	0.1	10.00	0.12	4.65
L0000157	0	0.72900E-06	563284.3	4183566.5	0.1	10.00	0.12	4.65
L0000158	0	0.72900E-06	563284.6	4183566.2	0.1	10.00	0.12	4.65
L0000159	0	0.72900E-06	563284.8	4183566.2	0.1	10.00	0.12	4.65
L0000160	0	0.72900E-06	563285.0	4183566.0	0.1	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000161	0	0.72900E-06	563285.2	4183566.0	0.1	10.00	0.12	4.65	
L0000162	0	0.72900E-06	563285.4	4183565.8	0.1	10.00	0.12	4.65	
L0000163	0	0.72900E-06	563285.7	4183565.8	0.1	10.00	0.12	4.65	
L0000164	0	0.72900E-06	563285.9	4183565.5	0.1	10.00	0.12	4.65	
L0000165	0	0.72900E-06	563286.1	4183565.5	0.1	10.00	0.12	4.65	
L0000166	0	0.72900E-06	563286.3	4183565.2	0.1	10.00	0.12	4.65	
L0000167	0	0.72900E-06	563286.6	4183565.2	0.1	10.00	0.12	4.65	
L0000168	0	0.72900E-06	563286.8	4183565.2	0.1	10.00	0.12	4.65	
L0000169	0	0.72900E-06	563287.0	4183565.0	0.1	10.00	0.12	4.65	
L0000170	0	0.72900E-06	563287.2	4183565.0	0.1	10.00	0.12	4.65	
L0000171	0	0.72900E-06	563287.4	4183564.8	0.1	10.00	0.12	4.65	
L0000172	0	0.72900E-06	563287.7	4183564.8	0.1	10.00	0.12	4.65	
L0000173	0	0.72900E-06	563287.9	4183564.5	0.0	10.00	0.12	4.65	
L0000174	0	0.72900E-06	563288.1	4183564.5	0.0	10.00	0.12	4.65	
L0000175	0	0.72900E-06	563288.4	4183564.2	0.0	10.00	0.12	4.65	
L0000176	0	0.72900E-06	563288.6	4183564.2	0.0	10.00	0.12	4.65	
L0000177	0	0.72900E-06	563288.8	4183564.0	0.0	10.00	0.12	4.65	
L0000178	0	0.72900E-06	563289.0	4183564.0	0.0	10.00	0.12	4.65	
L0000179	0	0.72900E-06	563289.2	4183564.0	0.0	10.00	0.12	4.65	
L0000180	0	0.72900E-06	563289.4	4183563.8	0.0	10.00	0.12	4.65	

L0000181	0	0.72900E-06	563289.7	4183563.8	0.0	10.00	0.12	4.65
L0000182	0	0.72900E-06	563289.9	4183563.5	0.0	10.00	0.12	4.65
L0000183	0	0.72900E-06	563290.1	4183563.5	0.0	10.00	0.12	4.65
L0000184	0	0.72900E-06	563290.4	4183563.2	0.0	10.00	0.12	4.65
L0000185	0	0.72900E-06	563290.6	4183563.2	0.0	10.00	0.12	4.65
L0000186	0	0.72900E-06	563290.8	4183563.0	0.0	10.00	0.12	4.65
L0000187	0	0.72900E-06	563291.0	4183563.0	0.0	10.00	0.12	4.65
L0000188	0	0.72900E-06	563291.3	4183563.0	0.0	10.00	0.12	4.65
L0000189	0	0.72900E-06	563291.5	4183562.8	0.0	10.00	0.12	4.65
L0000190	0	0.72900E-06	563291.7	4183562.8	0.0	10.00	0.12	4.65
L0000191	0	0.72900E-06	563291.9	4183562.5	0.0	10.00	0.12	4.65
L0000192	0	0.72900E-06	563292.1	4183562.5	0.0	10.00	0.12	4.65
L0000193	0	0.72900E-06	563292.4	4183562.2	0.0	10.00	0.12	4.65
L0000194	0	0.72900E-06	563292.6	4183562.2	0.0	10.00	0.12	4.65
L0000195	0	0.72900E-06	563292.8	4183562.0	0.0	10.00	0.12	4.65
L0000196	0	0.72900E-06	563293.0	4183562.0	0.0	10.00	0.12	4.65
L0000197	0	0.72900E-06	563293.2	4183561.8	0.0	10.00	0.12	4.65
L0000198	0	0.72900E-06	563293.5	4183561.8	0.0	10.00	0.12	4.65
L0000199	0	0.72900E-06	563293.7	4183561.8	0.0	10.00	0.12	4.65
L0000200	0	0.72900E-06	563293.9	4183561.5	0.0	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000201	0	0.72900E-06	563294.1	4183561.5	0.0	10.00	0.12	4.65	
L0000202	0	0.72900E-06	563294.4	4183561.3	0.0	10.00	0.12	4.65	
L0000203	0	0.72900E-06	563294.6	4183561.3	0.0	10.00	0.12	4.65	
L0000204	0	0.72900E-06	563294.8	4183561.0	0.0	10.00	0.12	4.65	
L0000205	0	0.72900E-06	563295.1	4183561.0	0.0	10.00	0.12	4.65	
L0000206	0	0.72900E-06	563295.2	4183560.8	0.0	10.00	0.12	4.65	
L0000207	0	0.72900E-06	563295.5	4183560.8	0.0	10.00	0.12	4.65	
L0000208	0	0.72900E-06	563295.7	4183560.5	0.0	10.00	0.12	4.65	
L0000209	0	0.72900E-06	563295.9	4183560.5	0.0	10.00	0.12	4.65	
L0000210	0	0.72900E-06	563296.1	4183560.5	0.0	10.00	0.12	4.65	
L0000211	0	0.72900E-06	563296.4	4183560.2	0.0	10.00	0.12	4.65	
L0000212	0	0.72900E-06	563296.6	4183560.2	0.0	10.00	0.12	4.65	
L0000213	0	0.72900E-06	563296.8	4183560.0	0.0	10.00	0.12	4.65	
L0000214	0	0.72900E-06	563297.1	4183560.0	0.0	10.00	0.12	4.65	
L0000215	0	0.72900E-06	563297.3	4183559.8	0.0	10.00	0.12	4.65	
L0000216	0	0.72900E-06	563297.5	4183559.8	-0.1	10.00	0.12	4.65	
L0000217	0	0.72900E-06	563297.7	4183559.5	-0.1	10.00	0.12	4.65	
L0000218	0	0.72900E-06	563297.9	4183559.5	-0.1	10.00	0.12	4.65	
L0000219	0	0.72900E-06	563298.2	4183559.2	-0.1	10.00	0.12	4.65	
L0000220	0	0.72900E-06	563298.4	4183559.2	-0.1	10.00	0.12	4.65	

L0000221	0	0.72900E-06	563298.6	4183559.2	-0.1	10.00	0.12	4.65
L0000222	0	0.72900E-06	563298.8	4183559.0	-0.1	10.00	0.12	4.65
L0000223	0	0.72900E-06	563299.1	4183559.0	-0.1	10.00	0.12	4.65
L0000224	0	0.72900E-06	563299.2	4183558.8	-0.1	10.00	0.12	4.65
L0000225	0	0.72900E-06	563299.5	4183558.8	-0.1	10.00	0.12	4.65
L0000226	0	0.72900E-06	563299.8	4183558.5	-0.1	10.00	0.12	4.65
L0000227	0	0.72900E-06	563299.9	4183558.5	-0.1	10.00	0.12	4.65
L0000228	0	0.72900E-06	563300.2	4183558.2	-0.1	10.00	0.12	4.65
L0000229	0	0.72900E-06	563300.4	4183558.2	-0.1	10.00	0.12	4.65
L0000230	0	0.72900E-06	563300.6	4183558.2	-0.1	10.00	0.12	4.65
L0000231	0	0.72900E-06	563300.8	4183558.0	-0.1	10.00	0.12	4.65
L0000232	0	0.72900E-06	563301.1	4183558.0	-0.1	10.00	0.12	4.65
L0000233	0	0.72900E-06	563301.3	4183557.8	-0.1	10.00	0.12	4.65
L0000234	0	0.72900E-06	563301.5	4183557.8	-0.1	10.00	0.12	4.65
L0000235	0	0.72900E-06	563301.8	4183557.5	-0.1	10.00	0.12	4.65
L0000236	0	0.72900E-06	563301.9	4183557.5	-0.1	10.00	0.12	4.65
L0000237	0	0.72900E-06	563302.2	4183557.2	-0.1	10.00	0.12	4.65
L0000238	0	0.72900E-06	563302.4	4183557.2	-0.1	10.00	0.12	4.65
L0000239	0	0.72900E-06	563302.6	4183557.0	-0.1	10.00	0.12	4.65
L0000240	0	0.72900E-06	563302.8	4183557.0	-0.2	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000241	0	0.72900E-06	563303.1	4183557.0	-0.2	10.00	0.12	4.65	
L0000242	0	0.72900E-06	563303.3	4183556.8	-0.2	10.00	0.12	4.65	
L0000243	0	0.72900E-06	563303.5	4183556.8	-0.2	10.00	0.12	4.65	
L0000244	0	0.72900E-06	563303.8	4183556.5	-0.2	10.00	0.12	4.65	
L0000245	0	0.72900E-06	563303.9	4183556.5	-0.2	10.00	0.12	4.65	
L0000246	0	0.72900E-06	563304.2	4183556.2	0.0	10.00	0.12	4.65	
L0000247	0	0.72900E-06	563304.4	4183556.2	0.0	10.00	0.12	4.65	
L0000248	0	0.72900E-06	563304.6	4183556.0	0.0	10.00	0.12	4.65	
L0000249	0	0.72900E-06	563304.9	4183556.0	0.0	10.00	0.12	4.65	
L0000250	0	0.72900E-06	563305.1	4183555.8	0.0	10.00	0.12	4.65	
L0000251	0	0.72900E-06	563305.3	4183555.8	0.0	10.00	0.12	4.65	
L0000252	0	0.72900E-06	563305.5	4183555.8	0.0	10.00	0.12	4.65	
L0000253	0	0.72900E-06	563305.8	4183555.5	0.0	10.00	0.12	4.65	
L0000254	0	0.72900E-06	563305.9	4183555.5	0.0	10.00	0.12	4.65	
L0000255	0	0.72900E-06	563306.2	4183555.3	0.0	10.00	0.12	4.65	
L0000256	0	0.72900E-06	563306.4	4183555.3	0.0	10.00	0.12	4.65	
L0000257	0	0.72900E-06	563306.6	4183555.0	0.0	10.00	0.12	4.65	
L0000258	0	0.72900E-06	563306.9	4183555.0	0.0	10.00	0.12	4.65	
L0000259	0	0.72900E-06	563307.1	4183554.8	0.0	10.00	0.12	4.65	
L0000260	0	0.72900E-06	563307.3	4183554.8	0.0	10.00	0.12	4.65	

L0000261	0	0.72900E-06	563307.5	4183554.8	0.0	10.00	0.12	4.65
L0000262	0	0.72900E-06	563307.8	4183554.5	0.0	10.00	0.12	4.65
L0000263	0	0.72900E-06	563308.0	4183554.5	0.0	10.00	0.12	4.65
L0000264	0	0.72900E-06	563308.2	4183554.2	0.0	10.00	0.12	4.65
L0000265	0	0.72900E-06	563308.4	4183554.2	0.0	10.00	0.12	4.65
L0000266	0	0.72900E-06	563308.6	4183554.0	0.0	10.00	0.12	4.65
L0000267	0	0.72900E-06	563308.9	4183554.0	0.0	10.00	0.12	4.65
L0000268	0	0.72900E-06	563309.1	4183553.8	0.0	10.00	0.12	4.65
L0000269	0	0.72900E-06	563309.3	4183553.8	0.0	10.00	0.12	4.65
L0000270	0	0.72900E-06	563309.6	4183553.5	0.0	10.00	0.12	4.65
L0000271	0	0.72900E-06	563309.8	4183553.5	0.0	10.00	0.12	4.65
L0000272	0	0.72900E-06	563310.0	4183553.5	0.0	10.00	0.12	4.65
L0000273	0	0.72900E-06	563310.2	4183553.3	0.0	10.00	0.12	4.65
L0000274	0	0.72900E-06	563310.4	4183553.3	0.0	10.00	0.12	4.65
L0000275	0	0.72900E-06	563310.6	4183553.0	0.0	10.00	0.12	4.65
L0000276	0	0.72900E-06	563310.9	4183553.0	0.0	10.00	0.12	4.65
L0000277	0	0.72900E-06	563311.1	4183552.8	0.0	10.00	0.12	4.65
L0000278	0	0.72900E-06	563311.3	4183552.8	0.0	10.00	0.12	4.65
L0000279	0	0.72900E-06	563311.6	4183552.5	0.0	10.00	0.12	4.65
L0000280	0	0.72900E-06	563311.8	4183552.5	0.0	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000281	0	0.72900E-06	563312.0	4183552.2	0.0	10.00	0.12	4.65	
L0000282	0	0.72900E-06	563312.2	4183552.2	0.0	10.00	0.12	4.65	
L0000283	0	0.72900E-06	563312.4	4183552.2	0.0	10.00	0.12	4.65	
L0000284	0	0.72900E-06	563312.6	4183552.0	0.0	10.00	0.12	4.65	
L0000285	0	0.72900E-06	563312.9	4183552.0	0.0	10.00	0.12	4.65	
L0000286	0	0.72900E-06	563313.1	4183551.8	0.0	10.00	0.12	4.65	
L0000287	0	0.72900E-06	563313.3	4183551.8	0.0	10.00	0.12	4.65	
L0000288	0	0.72900E-06	563313.6	4183551.5	0.0	10.00	0.12	4.65	
L0000289	0	0.72900E-06	563313.8	4183551.5	0.0	10.00	0.12	4.65	
L0000290	0	0.72900E-06	563314.0	4183551.2	0.0	10.00	0.12	4.65	
L0000291	0	0.72900E-06	563314.2	4183551.2	0.0	10.00	0.12	4.65	
L0000292	0	0.72900E-06	563314.4	4183551.0	0.0	10.00	0.12	4.65	
L0000293	0	0.72900E-06	563314.7	4183551.0	0.0	10.00	0.12	4.65	
L0000294	0	0.72900E-06	563314.9	4183551.0	0.0	10.00	0.12	4.65	
L0000295	0	0.72900E-06	563315.1	4183550.8	0.0	10.00	0.12	4.65	
L0000296	0	0.72900E-06	563315.3	4183550.8	0.0	10.00	0.12	4.65	
L0000297	0	0.72900E-06	563315.6	4183550.5	0.0	10.00	0.12	4.65	
L0000298	0	0.72900E-06	563315.8	4183550.5	0.0	10.00	0.12	4.65	
L0000299	0	0.72900E-06	563316.0	4183550.2	0.0	10.00	0.12	4.65	
L0000300	0	0.72900E-06	563316.2	4183550.2	0.0	10.00	0.12	4.65	

L0000301	0	0.72900E-06	563316.4	4183550.0	0.0	10.00	0.12	4.65
L0000302	0	0.72900E-06	563316.7	4183550.0	0.0	10.00	0.12	4.65
L0000303	0	0.72900E-06	563316.9	4183550.0	0.0	10.00	0.12	4.65
L0000304	0	0.72900E-06	563317.1	4183549.8	0.0	10.00	0.12	4.65
L0000305	0	0.72900E-06	563317.3	4183549.8	0.0	10.00	0.12	4.65
L0000306	0	0.72900E-06	563317.6	4183549.5	0.0	10.00	0.12	4.65
L0000307	0	0.72900E-06	563317.8	4183549.5	0.0	10.00	0.12	4.65
L0000308	0	0.72900E-06	563318.0	4183549.2	0.0	10.00	0.12	4.65
L0000309	0	0.72900E-06	563318.2	4183549.2	0.0	10.00	0.12	4.65
L0000310	0	0.72900E-06	563318.4	4183549.0	0.0	10.00	0.12	4.65
L0000311	0	0.72900E-06	563318.7	4183549.0	0.0	10.00	0.12	4.65
L0000312	0	0.72900E-06	563318.9	4183548.8	0.0	10.00	0.12	4.65
L0000313	0	0.72900E-06	563319.1	4183548.8	0.0	10.00	0.12	4.65
L0000314	0	0.72900E-06	563319.3	4183548.8	0.0	10.00	0.12	4.65
L0000315	0	0.72900E-06	563319.6	4183548.5	0.0	10.00	0.12	4.65
L0000316	0	0.72900E-06	563319.8	4183548.5	0.0	10.00	0.12	4.65
L0000317	0	0.72900E-06	563320.0	4183548.3	0.0	10.00	0.12	4.65
L0000318	0	0.72900E-06	563320.3	4183548.3	0.0	10.00	0.12	4.65
L0000319	0	0.72900E-06	563320.4	4183548.0	0.0	10.00	0.12	4.65
L0000320	0	0.72900E-06	563320.7	4183548.0	0.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000321	0	0.72900E-06	563320.9	4183547.8	0.0	10.00	0.12	4.65	
L0000322	0	0.72900E-06	563321.1	4183547.8	0.0	10.00	0.12	4.65	
L0000323	0	0.72900E-06	563321.4	4183547.5	0.0	10.00	0.12	4.65	
L0000324	0	0.72900E-06	563321.6	4183547.5	0.0	10.00	0.12	4.65	
L0000325	0	0.72900E-06	563321.8	4183547.5	0.0	10.00	0.12	4.65	
L0000326	0	0.72900E-06	563322.0	4183547.2	0.0	10.00	0.12	4.65	
L0000327	0	0.72900E-06	563322.2	4183547.2	0.0	10.00	0.12	4.65	
L0000328	0	0.72900E-06	563322.4	4183547.0	0.0	10.00	0.12	4.65	
L0000329	0	0.72900E-06	563322.7	4183547.0	0.0	10.00	0.12	4.65	
L0000330	0	0.72900E-06	563322.9	4183546.8	0.0	10.00	0.12	4.65	
L0000331	0	0.72900E-06	563323.1	4183546.8	0.0	10.00	0.12	4.65	
L0000332	0	0.72900E-06	563323.4	4183546.5	0.0	10.00	0.12	4.65	
L0000333	0	0.72900E-06	563323.6	4183546.5	0.0	10.00	0.12	4.65	
L0000334	0	0.72900E-06	563323.8	4183546.2	0.0	10.00	0.12	4.65	
L0000335	0	0.72900E-06	563324.0	4183546.2	0.0	10.00	0.12	4.65	
L0000336	0	0.72900E-06	563324.2	4183546.2	0.0	10.00	0.12	4.65	
L0000337	0	0.72900E-06	563324.5	4183546.0	0.0	10.00	0.12	4.65	
L0000338	0	0.72900E-06	563324.7	4183546.0	0.0	10.00	0.12	4.65	
L0000339	0	0.72900E-06	563324.9	4183545.8	0.0	10.00	0.12	4.65	
L0000340	0	0.72900E-06	563325.1	4183545.8	0.0	10.00	0.12	4.65	

L0000341	0	0.72900E-06	563325.4	4183545.5	0.0	10.00	0.12	4.65
L0000342	0	0.72900E-06	563325.6	4183545.5	0.0	10.00	0.12	4.65
L0000343	0	0.72900E-06	563325.8	4183545.2	0.0	10.00	0.12	4.65
L0000344	0	0.72900E-06	563326.1	4183545.2	0.0	10.00	0.12	4.65
L0000345	0	0.72900E-06	563326.3	4183545.2	0.0	10.00	0.12	4.65
L0000346	0	0.72900E-06	563326.5	4183545.0	0.0	10.00	0.12	4.65
L0000347	0	0.72900E-06	563326.7	4183545.0	0.0	10.00	0.12	4.65
L0000348	0	0.72900E-06	563326.9	4183544.8	0.0	10.00	0.12	4.65
L0000349	0	0.72900E-06	563327.1	4183544.8	0.0	10.00	0.12	4.65
L0000350	0	0.72900E-06	563327.4	4183544.5	0.0	10.00	0.12	4.65
L0000351	0	0.72900E-06	563327.6	4183544.5	0.0	10.00	0.12	4.65
L0000352	0	0.72900E-06	563327.8	4183544.2	0.0	10.00	0.12	4.65
L0000353	0	0.72900E-06	563328.1	4183544.2	1.1	10.00	0.12	4.65
L0000354	0	0.72900E-06	563328.2	4183544.0	1.1	10.00	0.12	4.65
L0000355	0	0.72900E-06	563328.5	4183544.0	1.1	10.00	0.12	4.65
L0000356	0	0.72900E-06	563328.7	4183544.0	1.1	10.00	0.12	4.65
L0000357	0	0.72900E-06	563328.9	4183543.8	1.1	10.00	0.12	4.65
L0000358	0	0.72900E-06	563329.1	4183543.8	1.1	10.00	0.12	4.65
L0000359	0	0.72900E-06	563329.4	4183543.5	1.1	10.00	0.12	4.65
L0000360	0	0.72900E-06	563329.6	4183543.5	1.1	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000361	0	0.72900E-06	563329.8	4183543.2	1.1	10.00	0.12	4.65	
L0000362	0	0.72900E-06	563330.1	4183543.2	1.1	10.00	0.12	4.65	
L0000363	0	0.72900E-06	563330.2	4183543.0	1.1	10.00	0.12	4.65	
L0000364	0	0.72900E-06	563330.5	4183543.0	1.1	10.00	0.12	4.65	
L0000365	0	0.72900E-06	563330.7	4183542.8	1.0	10.00	0.12	4.65	
L0000366	0	0.72900E-06	563330.9	4183542.8	1.0	10.00	0.12	4.65	
L0000367	0	0.72900E-06	563331.2	4183542.8	1.0	10.00	0.12	4.65	
L0000368	0	0.72900E-06	563331.4	4183542.5	1.0	10.00	0.12	4.65	
L0000369	0	0.72900E-06	563331.6	4183542.5	1.0	10.00	0.12	4.65	
L0000370	0	0.72900E-06	563331.8	4183542.3	1.0	10.00	0.12	4.65	
L0000371	0	0.72900E-06	563332.1	4183542.3	1.0	10.00	0.12	4.65	
L0000372	0	0.72900E-06	563332.3	4183542.0	1.0	10.00	0.12	4.65	
L0000373	0	0.72900E-06	563332.5	4183542.0	1.0	10.00	0.12	4.65	
L0000374	0	0.72900E-06	563332.8	4183541.8	1.0	10.00	0.12	4.65	
L0000375	0	0.72900E-06	563332.9	4183541.8	1.0	10.00	0.12	4.65	
L0000376	0	0.72900E-06	563333.2	4183541.8	1.0	10.00	0.12	4.65	
L0000377	0	0.72900E-06	563333.4	4183541.5	1.0	10.00	0.12	4.65	
L0000378	0	0.72900E-06	563333.6	4183541.5	1.0	10.00	0.12	4.65	
L0000379	0	0.72900E-06	563333.8	4183541.2	1.0	10.00	0.12	4.65	
L0000380	0	0.72900E-06	563334.1	4183541.2	1.0	10.00	0.12	4.65	

L0000381	0	0.72900E-06	563334.3	4183541.0	1.0	10.00	0.12	4.65
L0000382	0	0.72900E-06	563334.5	4183541.0	1.0	10.00	0.12	4.65
L0000383	0	0.72900E-06	563334.8	4183540.8	1.0	10.00	0.12	4.65
L0000384	0	0.72900E-06	563334.9	4183540.8	1.0	10.00	0.12	4.65
L0000385	0	0.72900E-06	563335.2	4183540.5	1.0	10.00	0.12	4.65
L0000386	0	0.72900E-06	563335.4	4183540.5	1.0	10.00	0.12	4.65
L0000387	0	0.72900E-06	563335.6	4183540.5	1.0	10.00	0.12	4.65
L0000388	0	0.72900E-06	563335.9	4183540.2	1.0	10.00	0.12	4.65
L0000389	0	0.72900E-06	563336.1	4183540.2	1.0	10.00	0.12	4.65
L0000390	0	0.72900E-06	563336.3	4183540.0	1.0	10.00	0.12	4.65
L0000391	0	0.72900E-06	563336.5	4183540.0	1.0	10.00	0.12	4.65
L0000392	0	0.72900E-06	563336.8	4183539.8	1.0	10.00	0.12	4.65
L0000393	0	0.72900E-06	563336.9	4183539.8	1.0	10.00	0.12	4.65
L0000394	0	0.72900E-06	563337.2	4183539.5	1.0	10.00	0.12	4.65
L0000395	0	0.72900E-06	563337.4	4183539.5	1.0	10.00	0.12	4.65
L0000396	0	0.72900E-06	563337.6	4183539.2	1.0	10.00	0.12	4.65
L0000397	0	0.72900E-06	563337.9	4183539.2	1.0	10.00	0.12	4.65
L0000398	0	0.72900E-06	563338.1	4183539.2	1.0	10.00	0.12	4.65
L0000399	0	0.72900E-06	563338.3	4183539.0	1.0	10.00	0.12	4.65
L0000400	0	0.72900E-06	563338.5	4183539.0	1.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000401	0	0.72900E-06	563338.8	4183538.8	1.0	10.00	0.12	4.65	
L0000402	0	0.72900E-06	563338.9	4183538.8	1.0	10.00	0.12	4.65	
L0000403	0	0.72900E-06	563339.2	4183538.5	1.0	10.00	0.12	4.65	
L0000404	0	0.72900E-06	563339.4	4183538.5	1.0	10.00	0.12	4.65	
L0000405	0	0.72900E-06	563339.6	4183538.2	1.0	10.00	0.12	4.65	
L0000406	0	0.72900E-06	563339.9	4183538.2	1.0	10.00	0.12	4.65	
L0000407	0	0.72900E-06	563340.1	4183538.0	1.0	10.00	0.12	4.65	
L0000408	0	0.72900E-06	563340.3	4183538.0	1.0	10.00	0.12	4.65	
L0000409	0	0.72900E-06	563340.5	4183538.0	1.0	10.00	0.12	4.65	
L0000410	0	0.72900E-06	563340.8	4183537.8	1.0	10.00	0.12	4.65	
L0000411	0	0.72900E-06	563341.0	4183537.8	1.0	10.00	0.12	4.65	
L0000412	0	0.72900E-06	563341.2	4183537.5	1.0	10.00	0.12	4.65	
L0000413	0	0.72900E-06	563341.4	4183537.5	1.0	10.00	0.12	4.65	
L0000414	0	0.72900E-06	563341.6	4183537.2	1.0	10.00	0.12	4.65	
L0000415	0	0.72900E-06	563341.9	4183537.2	1.0	10.00	0.12	4.65	
L0000416	0	0.72900E-06	563342.1	4183537.0	1.0	10.00	0.12	4.65	
L0000417	0	0.72900E-06	563342.3	4183537.0	1.0	10.00	0.12	4.65	
L0000418	0	0.72900E-06	563342.6	4183537.0	1.0	10.00	0.12	4.65	
L0000419	0	0.72900E-06	563342.8	4183536.8	1.0	10.00	0.12	4.65	
L0000420	0	0.72900E-06	563343.0	4183536.8	1.0	10.00	0.12	4.65	

L0000421	0	0.72900E-06	563343.2	4183536.5	1.0	10.00	0.12	4.65
L0000422	0	0.72900E-06	563343.4	4183536.5	1.0	10.00	0.12	4.65
L0000423	0	0.72900E-06	563343.6	4183536.3	1.0	10.00	0.12	4.65
L0000424	0	0.72900E-06	563343.9	4183536.3	1.0	10.00	0.12	4.65
L0000425	0	0.72900E-06	563344.1	4183536.0	1.0	10.00	0.12	4.65
L0000426	0	0.72900E-06	563344.3	4183536.0	1.0	10.00	0.12	4.65
L0000427	0	0.72900E-06	563344.6	4183535.8	1.1	10.00	0.12	4.65
L0000428	0	0.72900E-06	563344.8	4183535.8	1.1	10.00	0.12	4.65
L0000429	0	0.72900E-06	563345.0	4183535.8	1.1	10.00	0.12	4.65
L0000430	0	0.72900E-06	563345.2	4183535.5	1.1	10.00	0.12	4.65
L0000431	0	0.72900E-06	563345.4	4183535.5	1.1	10.00	0.12	4.65
L0000432	0	0.72900E-06	563345.6	4183535.3	1.1	10.00	0.12	4.65
L0000433	0	0.72900E-06	563345.9	4183535.3	1.1	10.00	0.12	4.65
L0000434	0	0.72900E-06	563346.1	4183535.0	1.1	10.00	0.12	4.65
L0000435	0	0.72900E-06	563346.3	4183535.0	1.1	10.00	0.12	4.65
L0000436	0	0.72900E-06	563346.6	4183534.8	1.1	10.00	0.12	4.65
L0000437	0	0.72900E-06	563346.8	4183534.8	1.1	10.00	0.12	4.65
L0000438	0	0.72900E-06	563347.0	4183534.5	1.1	10.00	0.12	4.65
L0000439	0	0.72900E-06	563347.2	4183534.5	1.1	10.00	0.12	4.65
L0000440	0	0.72900E-06	563347.4	4183534.5	1.1	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000441	0	0.72900E-06	563347.7	4183534.3	1.2	10.00	0.12	4.65	
L0000442	0	0.72900E-06	563347.9	4183534.3	1.2	10.00	0.12	4.65	
L0000443	0	0.72900E-06	563348.1	4183534.0	1.2	10.00	0.12	4.65	
L0000444	0	0.72900E-06	563348.3	4183534.0	1.2	10.00	0.12	4.65	
L0000445	0	0.72900E-06	563348.6	4183533.8	1.2	10.00	0.12	4.65	
L0000446	0	0.72900E-06	563348.8	4183533.8	1.2	10.00	0.12	4.65	
L0000447	0	0.72900E-06	563349.0	4183533.5	1.2	10.00	0.12	4.65	
L0000448	0	0.72900E-06	563349.2	4183533.5	1.2	10.00	0.12	4.65	
L0000449	0	0.72900E-06	563349.4	4183533.5	1.2	10.00	0.12	4.65	
L0000450	0	0.72900E-06	563349.7	4183533.2	1.3	10.00	0.12	4.65	
L0000451	0	0.72900E-06	563349.9	4183533.2	1.3	10.00	0.12	4.65	
L0000452	0	0.72900E-06	563350.1	4183533.0	1.3	10.00	0.12	4.65	
L0000453	0	0.72900E-06	563350.3	4183533.0	1.3	10.00	0.12	4.65	
L0000454	0	0.72900E-06	563350.6	4183532.8	1.3	10.00	0.12	4.65	
L0000455	0	0.72900E-06	563350.8	4183532.8	1.3	10.00	0.12	4.65	
L0000456	0	0.72900E-06	563351.0	4183532.5	1.4	10.00	0.12	4.65	
L0000457	0	0.72900E-06	563351.3	4183532.5	1.4	10.00	0.12	4.65	
L0000458	0	0.72900E-06	563351.4	4183532.2	1.4	10.00	0.12	4.65	
L0000459	0	0.72900E-06	563351.7	4183532.2	1.4	10.00	0.12	4.65	
L0000460	0	0.72900E-06	563351.9	4183532.2	1.4	10.00	0.12	4.65	

L0000461	0	0.72900E-06	563352.1	4183532.0	1.6	10.00	0.12	4.65
L0000462	0	0.72900E-06	563352.4	4183532.0	1.7	10.00	0.12	4.65
L0000463	0	0.72900E-06	563352.6	4183531.8	1.7	10.00	0.12	4.65
L0000464	0	0.72900E-06	563352.8	4183531.8	1.7	10.00	0.12	4.65
L0000465	0	0.72900E-06	563353.0	4183531.5	1.7	10.00	0.12	4.65
L0000466	0	0.72900E-06	563353.2	4183531.5	1.7	10.00	0.12	4.65
L0000467	0	0.72900E-06	563353.4	4183531.2	1.7	10.00	0.12	4.65
L0000468	0	0.72900E-06	563353.7	4183531.2	1.8	10.00	0.12	4.65
L0000469	0	0.72900E-06	563353.9	4183531.0	1.8	10.00	0.12	4.65
L0000470	0	0.72900E-06	563354.1	4183531.0	1.8	10.00	0.12	4.65
L0000471	0	0.72900E-06	563354.4	4183531.0	1.8	10.00	0.12	4.65
L0000472	0	0.72900E-06	563354.6	4183530.8	1.8	10.00	0.12	4.65
L0000473	0	0.72900E-06	563354.8	4183530.8	1.8	10.00	0.12	4.65
L0000474	0	0.72900E-06	563355.0	4183530.5	1.8	10.00	0.12	4.65
L0000475	0	0.72900E-06	563355.2	4183530.5	1.8	10.00	0.12	4.65
L0000476	0	0.72900E-06	563355.4	4183530.2	1.9	10.00	0.12	4.65
L0000477	0	0.72900E-06	563355.7	4183530.2	1.9	10.00	0.12	4.65
L0000478	0	0.72900E-06	563355.9	4183530.0	1.9	10.00	0.12	4.65
L0000479	0	0.72900E-06	563356.1	4183530.0	1.9	10.00	0.12	4.65
L0000480	0	0.72900E-06	563356.4	4183529.8	1.9	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000481	0	0.72900E-06	563356.6	4183529.8	1.9	10.00	0.12	4.65	
L0000482	0	0.72900E-06	563356.8	4183529.8	1.9	10.00	0.12	4.65	
L0000483	0	0.72900E-06	563357.0	4183529.5	1.9	10.00	0.12	4.65	
L0000484	0	0.72900E-06	563357.2	4183529.5	1.9	10.00	0.12	4.65	
L0000485	0	0.72900E-06	563357.5	4183529.3	1.9	10.00	0.12	4.65	
L0000486	0	0.72900E-06	563357.7	4183529.3	1.9	10.00	0.12	4.65	
L0000487	0	0.72900E-06	563357.9	4183529.0	1.9	10.00	0.12	4.65	
L0000488	0	0.72900E-06	563358.1	4183529.0	2.0	10.00	0.12	4.65	
L0000489	0	0.72900E-06	563358.4	4183528.8	2.0	10.00	0.12	4.65	
L0000490	0	0.72900E-06	563358.6	4183528.8	2.0	10.00	0.12	4.65	
L0000491	0	0.72900E-06	563358.8	4183528.8	2.0	10.00	0.12	4.65	
L0000492	0	0.72900E-06	563359.1	4183528.5	2.0	10.00	0.12	4.65	
L0000493	0	0.72900E-06	563359.2	4183528.5	2.0	10.00	0.12	4.65	
L0000494	0	0.72900E-06	563359.5	4183528.2	2.0	10.00	0.12	4.65	
L0000495	0	0.72900E-06	563359.7	4183528.2	2.0	10.00	0.12	4.65	
L0000496	0	0.72900E-06	563359.9	4183528.0	2.0	10.00	0.12	4.65	
L0000497	0	0.72900E-06	563360.1	4183528.0	2.0	10.00	0.12	4.65	
L0000498	0	0.72900E-06	563360.4	4183527.8	2.0	10.00	0.12	4.65	
L0000499	0	0.72900E-06	563360.6	4183527.8	2.0	10.00	0.12	4.65	
L0000500	0	0.72900E-06	563360.8	4183527.5	2.0	10.00	0.12	4.65	

L0000501	0	0.72900E-06	563361.1	4183527.5	2.0	10.00	0.12	4.65
L0000502	0	0.72900E-06	563361.3	4183527.5	2.0	10.00	0.12	4.65
L0000503	0	0.72900E-06	563361.5	4183527.2	2.0	10.00	0.12	4.65
L0000504	0	0.72900E-06	563361.7	4183527.2	2.0	10.00	0.12	4.65
L0000505	0	0.72900E-06	563361.9	4183527.0	2.0	10.00	0.12	4.65
L0000506	0	0.72900E-06	563362.1	4183527.0	2.0	10.00	0.12	4.65
L0000507	0	0.72900E-06	563362.4	4183526.8	2.0	10.00	0.12	4.65
L0000508	0	0.72900E-06	563362.6	4183526.8	2.0	10.00	0.12	4.65
L0000509	0	0.72900E-06	563362.8	4183526.5	2.0	10.00	0.12	4.65
L0000510	0	0.72900E-06	563363.1	4183526.5	2.0	10.00	0.12	4.65
L0000511	0	0.72900E-06	563363.2	4183526.2	2.0	10.00	0.12	4.65
L0000512	0	0.72900E-06	563363.5	4183526.2	2.0	10.00	0.12	4.65
L0000513	0	0.72900E-06	563363.7	4183526.2	2.0	10.00	0.12	4.65
L0000514	0	0.72900E-06	563363.9	4183526.0	2.0	10.00	0.12	4.65
L0000515	0	0.72900E-06	563364.2	4183526.0	2.0	10.00	0.12	4.65
L0000516	0	0.72900E-06	563364.4	4183525.8	2.0	10.00	0.12	4.65
L0000517	0	0.72900E-06	563364.6	4183525.8	2.0	10.00	0.12	4.65
L0000518	0	0.72900E-06	563364.8	4183525.5	2.0	10.00	0.12	4.65
L0000519	0	0.72900E-06	563365.1	4183525.5	2.0	10.00	0.12	4.65
L0000520	0	0.72900E-06	563365.2	4183525.2	2.0	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000521	0	0.72900E-06	563365.5	4183525.2	2.0	10.00	0.12	4.65	
L0000522	0	0.72900E-06	563365.8	4183525.0	2.0	10.00	0.12	4.65	
L0000523	0	0.72900E-06	563365.9	4183525.0	2.0	10.00	0.12	4.65	
L0000524	0	0.72900E-06	563366.2	4183525.0	2.0	10.00	0.12	4.65	
L0000525	0	0.72900E-06	563366.4	4183524.8	2.0	10.00	0.12	4.65	
L0000526	0	0.72900E-06	563366.6	4183524.8	2.0	10.00	0.12	4.65	
L0000527	0	0.72900E-06	563366.8	4183524.5	2.0	10.00	0.12	4.65	
L0000528	0	0.72900E-06	563367.1	4183524.5	2.0	10.00	0.12	4.65	
L0000529	0	0.72900E-06	563367.3	4183524.2	2.0	10.00	0.12	4.65	
L0000530	0	0.72900E-06	563367.5	4183524.2	2.0	10.00	0.12	4.65	
L0000531	0	0.72900E-06	563367.8	4183524.0	2.0	10.00	0.12	4.65	
L0000532	0	0.72900E-06	563367.9	4183524.0	2.0	10.00	0.12	4.65	
L0000533	0	0.72900E-06	563368.2	4183524.0	2.0	10.00	0.12	4.65	
L0000534	0	0.72900E-06	563368.4	4183523.8	2.0	10.00	0.12	4.65	
L0000535	0	0.72900E-06	563368.6	4183523.8	2.0	10.00	0.12	4.65	
L0000536	0	0.72900E-06	563368.9	4183523.5	2.0	10.00	0.12	4.65	
L0000537	0	0.72900E-06	563369.1	4183523.5	2.0	10.00	0.12	4.65	
L0000538	0	0.72900E-06	563369.3	4183523.3	2.0	10.00	0.12	4.65	
L0000539	0	0.72900E-06	563369.5	4183523.3	2.0	10.00	0.12	4.65	
L0000540	0	0.72900E-06	563369.8	4183523.0	2.0	10.00	0.12	4.65	

L0000541	0	0.72900E-06	563369.9	4183523.0	2.0	10.00	0.12	4.65
L0000542	0	0.72900E-06	563370.2	4183522.8	2.0	10.00	0.12	4.65
L0000543	0	0.72900E-06	563370.4	4183522.8	2.0	10.00	0.12	4.65
L0000544	0	0.72900E-06	563370.6	4183522.8	2.0	10.00	0.12	4.65
L0000545	0	0.72900E-06	563370.9	4183522.5	2.0	10.00	0.12	4.65
L0000546	0	0.72900E-06	563371.1	4183522.5	2.0	10.00	0.12	4.65
L0000547	0	0.72900E-06	563371.3	4183522.2	2.0	10.00	0.12	4.65
L0000548	0	0.72900E-06	563371.5	4183522.2	2.0	10.00	0.12	4.65
L0000549	0	0.72900E-06	563371.8	4183522.0	2.1	10.00	0.12	4.65
L0000550	0	0.72900E-06	563371.9	4183522.0	2.1	10.00	0.12	4.65
L0000551	0	0.72900E-06	563372.2	4183521.8	2.1	10.00	0.12	4.65
L0000552	0	0.72900E-06	563372.4	4183521.8	2.1	10.00	0.12	4.65
L0000553	0	0.72900E-06	563372.6	4183521.5	2.1	10.00	0.12	4.65
L0000554	0	0.72900E-06	563372.9	4183521.5	2.1	10.00	0.12	4.65
L0000555	0	0.72900E-06	563373.1	4183521.5	2.1	10.00	0.12	4.65
L0000556	0	0.72900E-06	563373.3	4183521.2	2.1	10.00	0.12	4.65
L0000557	0	0.72900E-06	563373.5	4183521.2	2.1	10.00	0.12	4.65
L0000558	0	0.72900E-06	563373.8	4183521.0	2.1	10.00	0.12	4.65
L0000559	0	0.72900E-06	563374.0	4183521.0	2.1	10.00	0.12	4.65
L0000560	0	0.72900E-06	563374.2	4183520.8	2.1	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000561	0	0.72900E-06	563374.4	4183520.8	2.1	10.00	0.12	4.65	
L0000562	0	0.72900E-06	563374.6	4183520.5	2.1	10.00	0.12	4.65	
L0000563	0	0.72900E-06	563374.9	4183520.5	2.1	10.00	0.12	4.65	
L0000564	0	0.72900E-06	563375.1	4183520.5	2.1	10.00	0.12	4.65	
L0000565	0	0.72900E-06	563375.3	4183520.2	2.1	10.00	0.12	4.65	
L0000566	0	0.72900E-06	563375.6	4183520.2	2.1	10.00	0.12	4.65	
L0000567	0	0.72900E-06	563375.8	4183520.0	2.1	10.00	0.12	4.65	
L0000568	0	0.72900E-06	563376.0	4183520.0	2.2	10.00	0.12	4.65	
L0000569	0	0.72900E-06	563376.2	4183519.8	2.2	10.00	0.12	4.65	
L0000570	0	0.72900E-06	563376.4	4183519.8	2.2	10.00	0.12	4.65	
L0000571	0	0.72900E-06	563376.6	4183519.5	2.2	10.00	0.12	4.65	
L0000572	0	0.72900E-06	563376.9	4183519.5	2.2	10.00	0.12	4.65	
L0000573	0	0.72900E-06	563377.1	4183519.2	2.2	10.00	0.12	4.65	
L0000574	0	0.72900E-06	563377.3	4183519.2	2.2	10.00	0.12	4.65	
L0000575	0	0.72900E-06	563377.6	4183519.2	2.2	10.00	0.12	4.65	
L0000576	0	0.72900E-06	563377.8	4183519.0	2.2	10.00	0.12	4.65	
L0000577	0	0.72900E-06	563378.0	4183519.0	2.2	10.00	0.12	4.65	
L0000578	0	0.72900E-06	563378.2	4183518.8	2.2	10.00	0.12	4.65	
L0000579	0	0.72900E-06	563378.4	4183518.8	2.2	10.00	0.12	4.65	
L0000580	0	0.72900E-06	563378.7	4183518.5	2.2	10.00	0.12	4.65	

L0000581	0	0.72900E-06	563378.9	4183518.5	2.2	10.00	0.12	4.65
L0000582	0	0.72900E-06	563379.1	4183518.2	2.2	10.00	0.12	4.65
L0000583	0	0.72900E-06	563379.3	4183518.2	2.2	10.00	0.12	4.65
L0000584	0	0.72900E-06	563379.6	4183518.0	2.2	10.00	0.12	4.65
L0000585	0	0.72900E-06	563379.8	4183518.0	2.2	10.00	0.12	4.65
L0000586	0	0.72900E-06	563380.0	4183518.0	2.2	10.00	0.12	4.65
L0000587	0	0.72900E-06	563380.2	4183517.8	2.2	10.00	0.12	4.65
L0000588	0	0.72900E-06	563380.4	4183517.8	2.2	10.00	0.12	4.65
L0000589	0	0.72900E-06	563380.7	4183517.5	2.2	10.00	0.12	4.65
L0000590	0	0.72900E-06	563380.9	4183517.5	2.2	10.00	0.12	4.65
L0000591	0	0.72900E-06	563381.1	4183517.3	2.2	10.00	0.12	4.65
L0000592	0	0.72900E-06	563381.3	4183517.3	2.3	10.00	0.12	4.65
L0000593	0	0.72900E-06	563381.6	4183517.0	2.3	10.00	0.12	4.65
L0000594	0	0.72900E-06	563381.8	4183517.0	2.3	10.00	0.12	4.65
L0000595	0	0.72900E-06	563382.0	4183516.8	2.3	10.00	0.12	4.65
L0000596	0	0.72900E-06	563382.2	4183516.8	2.3	10.00	0.12	4.65
L0000597	0	0.72900E-06	563382.4	4183516.8	2.3	10.00	0.12	4.65
L0000598	0	0.72900E-06	563382.7	4183516.5	2.3	10.00	0.12	4.65
L0000599	0	0.72900E-06	563382.9	4183516.5	2.3	10.00	0.12	4.65
L0000600	0	0.72900E-06	563383.1	4183516.3	2.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000601	0	0.72900E-06	563383.3	4183516.3	2.3	10.00	0.12	4.65	
L0000602	0	0.72900E-06	563383.6	4183516.0	2.3	10.00	0.12	4.65	
L0000603	0	0.72900E-06	563383.8	4183516.0	2.3	10.00	0.12	4.65	
L0000604	0	0.72900E-06	563384.0	4183515.8	2.3	10.00	0.12	4.65	
L0000605	0	0.72900E-06	563384.2	4183515.8	2.3	10.00	0.12	4.65	
L0000606	0	0.72900E-06	563384.4	4183515.8	2.3	10.00	0.12	4.65	
L0000607	0	0.72900E-06	563384.7	4183515.5	2.3	10.00	0.12	4.65	
L0000608	0	0.72900E-06	563384.9	4183515.5	2.3	10.00	0.12	4.65	
L0000609	0	0.72900E-06	563385.1	4183515.3	2.3	10.00	0.12	4.65	
L0000610	0	0.72900E-06	563385.4	4183515.3	2.3	10.00	0.12	4.65	
L0000611	0	0.72900E-06	563385.6	4183515.0	2.4	10.00	0.12	4.65	
L0000612	0	0.72900E-06	563385.8	4183515.0	2.4	10.00	0.12	4.65	
L0000613	0	0.72900E-06	563386.0	4183514.8	2.4	10.00	0.12	4.65	
L0000614	0	0.72900E-06	563386.3	4183514.8	2.4	10.00	0.12	4.65	
L0000615	0	0.72900E-06	563386.4	4183514.5	2.4	10.00	0.12	4.65	
L0000616	0	0.72900E-06	563386.7	4183514.5	2.4	10.00	0.12	4.65	
L0000617	0	0.72900E-06	563386.9	4183514.5	2.4	10.00	0.12	4.65	
L0000618	0	0.72900E-06	563387.1	4183514.2	2.4	10.00	0.12	4.65	
L0000619	0	0.72900E-06	563387.4	4183514.2	2.4	10.00	0.12	4.65	
L0000620	0	0.72900E-06	563387.6	4183514.0	2.4	10.00	0.12	4.65	

L0000621	0	0.72900E-06	563387.8	4183514.0	2.4	10.00	0.12	4.65
L0000622	0	0.72900E-06	563388.0	4183513.8	2.4	10.00	0.12	4.65
L0000623	0	0.72900E-06	563388.2	4183513.8	2.4	10.00	0.12	4.65
L0000624	0	0.72900E-06	563388.4	4183513.5	2.5	10.00	0.12	4.65
L0000625	0	0.72900E-06	563388.7	4183513.5	2.5	10.00	0.12	4.65
L0000626	0	0.72900E-06	563388.9	4183513.2	2.5	10.00	0.12	4.65
L0000627	0	0.72900E-06	563389.1	4183513.2	2.5	10.00	0.12	4.65
L0000628	0	0.72900E-06	563389.4	4183513.2	2.5	10.00	0.12	4.65
L0000629	0	0.72900E-06	563389.6	4183513.0	2.5	10.00	0.12	4.65
L0000630	0	0.72900E-06	563389.8	4183513.0	2.5	10.00	0.12	4.65
L0000631	0	0.72900E-06	563390.0	4183512.8	2.5	10.00	0.12	4.65
L0000632	0	0.72900E-06	563390.3	4183512.8	2.5	10.00	0.12	4.65
L0000633	0	0.72900E-06	563390.5	4183512.5	2.5	10.00	0.12	4.65
L0000634	0	0.72900E-06	563390.7	4183512.5	2.5	10.00	0.12	4.65
L0000635	0	0.72900E-06	563390.9	4183512.2	2.5	10.00	0.12	4.65
L0000636	0	0.72900E-06	563391.1	4183512.2	2.5	10.00	0.12	4.65
L0000637	0	0.72900E-06	563391.4	4183512.0	2.5	10.00	0.12	4.65
L0000638	0	0.72900E-06	563391.6	4183512.0	2.5	10.00	0.12	4.65
L0000639	0	0.72900E-06	563391.8	4183512.0	2.5	10.00	0.12	4.65
L0000640	0	0.72900E-06	563392.1	4183511.8	2.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000641	0	0.72900E-06	563392.2	4183511.8	2.9	10.00	0.12	4.65	
L0000642	0	0.72900E-06	563392.5	4183511.5	2.9	10.00	0.12	4.65	
L0000643	0	0.72900E-06	563392.7	4183511.5	2.9	10.00	0.12	4.65	
L0000644	0	0.72900E-06	563392.9	4183511.2	2.9	10.00	0.12	4.65	
L0000645	0	0.72900E-06	563393.1	4183511.2	2.9	10.00	0.12	4.65	
L0000646	0	0.72900E-06	563393.4	4183511.0	2.9	10.00	0.12	4.65	
L0000647	0	0.72900E-06	563393.6	4183511.0	2.8	10.00	0.12	4.65	
L0000648	0	0.72900E-06	563393.8	4183511.0	2.8	10.00	0.12	4.65	
L0000649	0	0.72900E-06	563394.1	4183510.8	2.8	10.00	0.12	4.65	
L0000650	0	0.72900E-06	563394.2	4183510.8	2.8	10.00	0.12	4.65	
L0000651	0	0.72900E-06	563394.5	4183510.5	2.8	10.00	0.12	4.65	
L0000652	0	0.72900E-06	563394.7	4183510.5	2.8	10.00	0.12	4.65	
L0000653	0	0.72900E-06	563394.9	4183510.3	2.8	10.00	0.12	4.65	
L0000654	0	0.72900E-06	563395.2	4183510.3	2.8	10.00	0.12	4.65	
L0000655	0	0.72900E-06	563395.4	4183510.0	2.8	10.00	0.12	4.65	
L0000656	0	0.72900E-06	563395.6	4183510.0	2.8	10.00	0.12	4.65	
L0000657	0	0.72900E-06	563395.8	4183509.8	2.8	10.00	0.12	4.65	
L0000658	0	0.72900E-06	563396.1	4183509.8	2.8	10.00	0.12	4.65	
L0000659	0	0.72900E-06	563396.3	4183509.8	2.8	10.00	0.12	4.65	
L0000660	0	0.72900E-06	563396.5	4183509.5	2.8	10.00	0.12	4.65	

L0000661	0	0.72900E-06	563396.8	4183509.5	2.8	10.00	0.12	4.65
L0000662	0	0.72900E-06	563396.9	4183509.2	2.8	10.00	0.12	4.65
L0000663	0	0.72900E-06	563397.2	4183509.2	2.8	10.00	0.12	4.65
L0000664	0	0.72900E-06	563397.4	4183509.0	2.8	10.00	0.12	4.65
L0000665	0	0.72900E-06	563397.6	4183509.0	2.8	10.00	0.12	4.65
L0000666	0	0.72900E-06	563397.8	4183508.8	2.8	10.00	0.12	4.65
L0000667	0	0.72900E-06	563398.1	4183508.8	2.7	10.00	0.12	4.65
L0000668	0	0.72900E-06	563398.2	4183508.5	2.7	10.00	0.12	4.65
L0000669	0	0.72900E-06	563398.5	4183508.5	2.7	10.00	0.12	4.65
L0000670	0	0.72900E-06	563398.8	4183508.5	2.7	10.00	0.12	4.65
L0000671	0	0.72900E-06	563398.9	4183508.2	2.7	10.00	0.12	4.65
L0000672	0	0.72900E-06	563399.2	4183508.2	2.7	10.00	0.12	4.65
L0000673	0	0.72900E-06	563399.4	4183508.0	2.7	10.00	0.12	4.65
L0000674	0	0.72900E-06	563399.6	4183508.0	2.7	10.00	0.12	4.65
L0000675	0	0.72900E-06	563399.8	4183507.8	2.7	10.00	0.12	4.65
L0000676	0	0.72900E-06	563400.1	4183507.8	2.5	10.00	0.12	4.65
L0000677	0	0.72900E-06	563400.3	4183507.5	2.5	10.00	0.12	4.65
L0000678	0	0.72900E-06	563400.5	4183507.5	2.5	10.00	0.12	4.65
L0000679	0	0.72900E-06	563400.8	4183507.5	2.5	10.00	0.12	4.65
L0000680	0	0.72900E-06	563400.9	4183507.2	2.5	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000681	0	0.72900E-06	563401.2	4183507.2	2.5	10.00	0.12	4.65	
L0000682	0	0.72900E-06	563401.4	4183507.0	2.5	10.00	0.12	4.65	
L0000683	0	0.72900E-06	563401.6	4183507.0	2.5	10.00	0.12	4.65	
L0000684	0	0.72900E-06	563401.9	4183506.8	2.4	10.00	0.12	4.65	
L0000685	0	0.72900E-06	563402.1	4183506.8	2.4	10.00	0.12	4.65	
L0000686	0	0.72900E-06	563402.3	4183506.5	2.4	10.00	0.12	4.65	
L0000687	0	0.72900E-06	563402.5	4183506.5	2.4	10.00	0.12	4.65	
L0000688	0	0.72900E-06	563402.8	4183506.2	2.4	10.00	0.12	4.65	
L0000689	0	0.72900E-06	563402.9	4183506.2	2.4	10.00	0.12	4.65	
L0000690	0	0.72900E-06	563403.2	4183506.2	2.4	10.00	0.12	4.65	
L0000691	0	0.72900E-06	563403.4	4183506.0	2.3	10.00	0.12	4.65	
L0000692	0	0.72900E-06	563403.6	4183506.0	2.3	10.00	0.12	4.65	
L0000693	0	0.72900E-06	563403.9	4183505.8	2.3	10.00	0.12	4.65	
L0000694	0	0.72900E-06	563404.1	4183505.8	2.3	10.00	0.12	4.65	
L0000695	0	0.72900E-06	563404.3	4183505.5	2.3	10.00	0.12	4.65	
L0000696	0	0.72900E-06	563404.5	4183505.5	2.3	10.00	0.12	4.65	
L0000697	0	0.72900E-06	563404.8	4183505.2	2.3	10.00	0.12	4.65	
L0000698	0	0.72900E-06	563405.0	4183505.2	2.3	10.00	0.12	4.65	
L0000699	0	0.72900E-06	563405.2	4183505.0	2.2	10.00	0.12	4.65	
L0000700	0	0.72900E-06	563405.4	4183505.0	2.2	10.00	0.12	4.65	

L0000701	0	0.72900E-06	563405.6	4183505.0	2.2	10.00	0.12	4.65
L0000702	0	0.72900E-06	563405.9	4183504.8	2.2	10.00	0.12	4.65
L0000703	0	0.72900E-06	563406.1	4183504.8	2.2	10.00	0.12	4.65
L0000704	0	0.72900E-06	563406.3	4183504.5	2.2	10.00	0.12	4.65
L0000705	0	0.72900E-06	563406.5	4183504.5	2.2	10.00	0.12	4.65
L0000706	0	0.72900E-06	563406.8	4183504.3	2.2	10.00	0.12	4.65
L0000707	0	0.72900E-06	563407.0	4183504.3	2.2	10.00	0.12	4.65
L0000708	0	0.72900E-06	563407.2	4183504.0	2.2	10.00	0.12	4.65
L0000709	0	0.72900E-06	563407.4	4183504.0	2.1	10.00	0.12	4.65
L0000710	0	0.72900E-06	563407.6	4183503.8	2.1	10.00	0.12	4.65
L0000711	0	0.72900E-06	563407.9	4183503.8	2.1	10.00	0.12	4.65
L0000712	0	0.72900E-06	563408.1	4183503.8	2.1	10.00	0.12	4.65
L0000713	0	0.72900E-06	563408.3	4183503.5	2.1	10.00	0.12	4.65
L0000714	0	0.72900E-06	563408.6	4183503.5	2.1	10.00	0.12	4.65
L0000715	0	0.72900E-06	563408.8	4183503.2	2.1	10.00	0.12	4.65
L0000716	0	0.72900E-06	563409.0	4183503.2	2.1	10.00	0.12	4.65
L0000717	0	0.72900E-06	563409.2	4183503.0	2.1	10.00	0.12	4.65
L0000718	0	0.72900E-06	563409.4	4183503.0	2.1	10.00	0.12	4.65
L0000719	0	0.72900E-06	563409.6	4183502.8	2.1	10.00	0.12	4.65
L0000720	0	0.72900E-06	563409.9	4183502.8	2.1	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000721	0	0.72900E-06	563410.1	4183502.8	2.0	10.00	0.12	4.65	
L0000722	0	0.72900E-06	563410.3	4183502.5	2.0	10.00	0.12	4.65	
L0000723	0	0.72900E-06	563410.6	4183502.5	2.0	10.00	0.12	4.65	
L0000724	0	0.72900E-06	563410.8	4183502.2	2.0	10.00	0.12	4.65	
L0000725	0	0.72900E-06	563411.0	4183502.2	2.0	10.00	0.12	4.65	
L0000726	0	0.72900E-06	563411.2	4183502.0	2.0	10.00	0.12	4.65	
L0000727	0	0.72900E-06	563411.4	4183502.0	2.0	10.00	0.12	4.65	
L0000728	0	0.72900E-06	563411.7	4183501.8	2.0	10.00	0.12	4.65	
L0000729	0	0.72900E-06	563411.9	4183501.8	2.0	10.00	0.12	4.65	
L0000730	0	0.72900E-06	563412.1	4183501.5	2.0	10.00	0.12	4.65	
L0000731	0	0.72900E-06	563412.3	4183501.5	2.0	10.00	0.12	4.65	
L0000732	0	0.72900E-06	563412.6	4183501.5	2.0	10.00	0.12	4.65	
L0000733	0	0.72900E-06	563412.8	4183501.2	2.0	10.00	0.12	4.65	
L0000734	0	0.72900E-06	563413.0	4183501.2	2.0	10.00	0.12	4.65	
L0000735	0	0.72900E-06	563413.2	4183501.0	2.0	10.00	0.12	4.65	
L0000736	0	0.72900E-06	563413.4	4183501.0	2.0	10.00	0.12	4.65	
L0000737	0	0.72900E-06	563413.7	4183500.8	2.0	10.00	0.12	4.65	
L0000738	0	0.72900E-06	563413.9	4183500.8	2.0	10.00	0.12	4.65	
L0000739	0	0.72900E-06	563414.1	4183500.5	2.0	10.00	0.12	4.65	
L0000740	0	0.72900E-06	563414.3	4183500.5	2.0	10.00	0.12	4.65	

L0000741	0	0.72900E-06	563414.6	4183500.2	2.0	10.00	0.12	4.65
L0000742	0	0.72900E-06	563414.8	4183500.2	2.0	10.00	0.12	4.65
L0000743	0	0.72900E-06	563415.0	4183500.2	2.0	10.00	0.12	4.65
L0000744	0	0.72900E-06	563415.3	4183500.0	2.0	10.00	0.12	4.65
L0000745	0	0.72900E-06	563415.4	4183500.0	2.0	10.00	0.12	4.65
L0000746	0	0.72900E-06	563415.7	4183499.8	2.0	10.00	0.12	4.65
L0000747	0	0.72900E-06	563415.9	4183499.8	2.0	10.00	0.12	4.65
L0000748	0	0.72900E-06	563416.1	4183499.5	2.0	10.00	0.12	4.65
L0000749	0	0.72900E-06	563416.3	4183499.5	2.0	10.00	0.12	4.65
L0000750	0	0.72900E-06	563416.6	4183499.2	2.0	10.00	0.12	4.65
L0000751	0	0.72900E-06	563416.8	4183499.2	2.0	10.00	0.12	4.65
L0000752	0	0.72900E-06	563417.0	4183499.0	2.0	10.00	0.12	4.65
L0000753	0	0.72900E-06	563417.2	4183499.0	2.0	10.00	0.12	4.65
L0000754	0	0.72900E-06	563417.4	4183499.0	2.0	10.00	0.12	4.65
L0000755	0	0.72900E-06	563417.7	4183498.8	2.0	10.00	0.12	4.65
L0000756	0	0.72900E-06	563417.9	4183498.8	2.0	10.00	0.12	4.65
L0000757	0	0.72900E-06	563418.1	4183498.5	2.0	10.00	0.12	4.65
L0000758	0	0.72900E-06	563418.4	4183498.5	2.1	10.00	0.12	4.65
L0000759	0	0.72900E-06	563418.6	4183498.2	2.1	10.00	0.12	4.65
L0000760	0	0.72900E-06	563418.8	4183498.2	2.1	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000761	0	0.72900E-06	563419.0	4183498.0	2.1	10.00	0.12	4.65	
L0000762	0	0.72900E-06	563419.2	4183498.0	2.1	10.00	0.12	4.65	
L0000763	0	0.72900E-06	563419.4	4183498.0	2.1	10.00	0.12	4.65	
L0000764	0	0.72900E-06	563419.7	4183497.8	2.1	10.00	0.12	4.65	
L0000765	0	0.72900E-06	563419.9	4183497.8	2.1	10.00	0.12	4.65	
L0000766	0	0.72900E-06	563420.1	4183497.5	2.1	10.00	0.12	4.65	
L0000767	0	0.72900E-06	563420.4	4183497.5	2.1	10.00	0.12	4.65	
L0000768	0	0.72900E-06	563420.6	4183497.3	2.1	10.00	0.12	4.65	
L0000769	0	0.72900E-06	563420.8	4183497.3	2.1	10.00	0.12	4.65	
L0000770	0	0.72900E-06	563421.0	4183497.0	2.1	10.00	0.12	4.65	
L0000771	0	0.72900E-06	563421.3	4183497.0	2.1	10.00	0.12	4.65	
L0000772	0	0.72900E-06	563421.5	4183496.8	2.1	10.00	0.12	4.65	
L0000773	0	0.72900E-06	563421.7	4183496.8	2.1	10.00	0.12	4.65	
L0000774	0	0.72900E-06	563421.9	4183496.8	2.1	10.00	0.12	4.65	
L0000775	0	0.72900E-06	563422.1	4183496.5	2.1	10.00	0.12	4.65	
L0000776	0	0.72900E-06	563422.4	4183496.5	2.1	10.00	0.12	4.65	
L0000777	0	0.72900E-06	563422.6	4183496.3	2.1	10.00	0.12	4.65	
L0000778	0	0.72900E-06	563422.8	4183496.3	2.1	10.00	0.12	4.65	
L0000779	0	0.72900E-06	563423.0	4183496.0	2.1	10.00	0.12	4.65	
L0000780	0	0.72900E-06	563423.2	4183496.0	2.1	10.00	0.12	4.65	

L0000781	0	0.72900E-06	563423.5	4183495.8	2.1	10.00	0.12	4.65
L0000782	0	0.72900E-06	563423.7	4183495.8	2.1	10.00	0.12	4.65
L0000783	0	0.72900E-06	563423.9	4183495.5	2.1	10.00	0.12	4.65
L0000784	0	0.72900E-06	563424.1	4183495.5	1.9	10.00	0.12	4.65
L0000785	0	0.72900E-06	563424.4	4183495.5	1.9	10.00	0.12	4.65
L0000786	0	0.72900E-06	563424.6	4183495.2	1.9	10.00	0.12	4.65
L0000787	0	0.72900E-06	563424.8	4183495.2	1.9	10.00	0.12	4.65
L0000788	0	0.72900E-06	563425.1	4183495.0	1.9	10.00	0.12	4.65
L0000789	0	0.72900E-06	563425.2	4183495.0	1.9	10.00	0.12	4.65
L0000790	0	0.72900E-06	563425.5	4183494.8	1.9	10.00	0.12	4.65
L0000791	0	0.72900E-06	563425.7	4183494.8	1.9	10.00	0.12	4.65
L0000792	0	0.72900E-06	563425.9	4183494.5	1.9	10.00	0.12	4.65
L0000793	0	0.72900E-06	563426.1	4183494.5	1.9	10.00	0.12	4.65
L0000794	0	0.72900E-06	563426.4	4183494.5	1.9	10.00	0.12	4.65
L0000795	0	0.72900E-06	563426.6	4183494.2	1.9	10.00	0.12	4.65
L0000796	0	0.72900E-06	563426.8	4183494.2	1.9	10.00	0.12	4.65
L0000797	0	0.72900E-06	563427.1	4183494.0	1.9	10.00	0.12	4.65
L0000798	0	0.72900E-06	563427.2	4183494.0	1.9	10.00	0.12	4.65
L0000799	0	0.72900E-06	563427.5	4183493.8	1.9	10.00	0.12	4.65
L0000800	0	0.72900E-06	563427.7	4183493.8	1.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000801	0	0.72900E-06	563427.9	4183493.5	1.9	10.00	0.12	4.65	
L0000802	0	0.72900E-06	563428.2	4183493.5	1.9	10.00	0.12	4.65	
L0000803	0	0.72900E-06	563428.4	4183493.2	1.9	10.00	0.12	4.65	
L0000804	0	0.72900E-06	563428.6	4183493.2	1.9	10.00	0.12	4.65	
L0000805	0	0.72900E-06	563428.8	4183493.2	1.9	10.00	0.12	4.65	
L0000806	0	0.72900E-06	563429.1	4183493.0	1.9	10.00	0.12	4.65	
L0000807	0	0.72900E-06	563429.2	4183493.0	1.9	10.00	0.12	4.65	
L0000808	0	0.72900E-06	563429.5	4183492.8	1.9	10.00	0.12	4.65	
L0000809	0	0.72900E-06	563429.8	4183492.8	1.9	10.00	0.12	4.65	
L0000810	0	0.72900E-06	563429.9	4183492.5	1.9	10.00	0.12	4.65	
L0000811	0	0.72900E-06	563430.2	4183492.5	1.9	10.00	0.12	4.65	
L0000812	0	0.72900E-06	563430.4	4183492.2	1.9	10.00	0.12	4.65	
L0000813	0	0.72900E-06	563430.6	4183492.2	1.9	10.00	0.12	4.65	
L0000814	0	0.72900E-06	563430.8	4183492.0	1.9	10.00	0.12	4.65	
L0000815	0	0.72900E-06	563431.1	4183492.0	1.9	10.00	0.12	4.65	
L0000816	0	0.72900E-06	563431.2	4183492.0	1.9	10.00	0.12	4.65	
L0000817	0	0.72900E-06	563431.5	4183491.8	1.9	10.00	0.12	4.65	
L0000818	0	0.72900E-06	563431.8	4183491.8	1.9	10.00	0.12	4.65	
L0000819	0	0.72900E-06	563431.9	4183491.5	1.9	10.00	0.12	4.65	
L0000820	0	0.72900E-06	563432.2	4183491.5	1.9	10.00	0.12	4.65	

L0000821	0	0.72900E-06	563432.4	4183491.3	1.9	10.00	0.12	4.65
L0000822	0	0.72900E-06	563432.6	4183491.3	1.9	10.00	0.12	4.65
L0000823	0	0.72900E-06	563432.8	4183491.0	1.9	10.00	0.12	4.65
L0000824	0	0.72900E-06	563433.1	4183491.0	1.9	10.00	0.12	4.65
L0000825	0	0.72900E-06	563433.3	4183490.8	1.9	10.00	0.12	4.65
L0000826	0	0.72900E-06	563433.5	4183490.8	1.9	10.00	0.12	4.65
L0000827	0	0.72900E-06	563433.8	4183490.8	1.9	10.00	0.12	4.65
L0000828	0	0.72900E-06	563433.9	4183490.5	1.9	10.00	0.12	4.65
L0000829	0	0.72900E-06	563434.2	4183490.5	1.9	10.00	0.12	4.65
L0000830	0	0.72900E-06	563434.4	4183490.2	1.9	10.00	0.12	4.65
L0000831	0	0.72900E-06	563434.6	4183490.2	1.9	10.00	0.12	4.65
L0000832	0	0.72900E-06	563434.9	4183490.0	1.9	10.00	0.12	4.65
L0000833	0	0.72900E-06	563435.1	4183490.0	1.9	10.00	0.12	4.65
L0000834	0	0.72900E-06	563435.3	4183489.8	1.9	10.00	0.12	4.65
L0000835	0	0.72900E-06	563435.5	4183489.8	1.9	10.00	0.12	4.65
L0000836	0	0.72900E-06	563435.8	4183489.8	1.9	10.00	0.12	4.65
L0000837	0	0.72900E-06	563435.9	4183489.5	1.8	10.00	0.12	4.65
L0000838	0	0.72900E-06	563436.2	4183489.5	1.8	10.00	0.12	4.65
L0000839	0	0.72900E-06	563436.4	4183489.2	1.8	10.00	0.12	4.65
L0000840	0	0.72900E-06	563436.6	4183489.2	1.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000841	0	0.72900E-06	563436.9	4183489.0	1.8	10.00	0.12	4.65	
L0000842	0	0.72900E-06	563437.1	4183489.0	1.8	10.00	0.12	4.65	
L0000843	0	0.72900E-06	563437.3	4183488.8	1.8	10.00	0.12	4.65	
L0000844	0	0.72900E-06	563437.5	4183488.8	1.8	10.00	0.12	4.65	
L0000845	0	0.72900E-06	563437.8	4183488.5	1.8	10.00	0.12	4.65	
L0000846	0	0.72900E-06	563438.0	4183488.5	1.8	10.00	0.12	4.65	
L0000847	0	0.72900E-06	563438.2	4183488.5	1.8	10.00	0.12	4.65	
L0000848	0	0.72900E-06	563438.4	4183488.2	1.8	10.00	0.12	4.65	
L0000849	0	0.72900E-06	563438.6	4183488.2	1.8	10.00	0.12	4.65	
L0000850	0	0.72900E-06	563438.9	4183488.0	1.8	10.00	0.12	4.65	
L0000851	0	0.72900E-06	563439.1	4183488.0	1.8	10.00	0.12	4.65	
L0000852	0	0.72900E-06	563439.3	4183487.8	1.9	10.00	0.12	4.65	
L0000853	0	0.72900E-06	563439.6	4183487.8	1.9	10.00	0.12	4.65	
L0000854	0	0.72900E-06	563439.8	4183487.5	1.9	10.00	0.12	4.65	
L0000855	0	0.72900E-06	563440.0	4183487.5	1.9	10.00	0.12	4.65	
L0000856	0	0.72900E-06	563440.2	4183487.2	1.9	10.00	0.12	4.65	
L0000857	0	0.72900E-06	563440.4	4183487.2	1.9	10.00	0.12	4.65	
L0000858	0	0.72900E-06	563440.6	4183487.2	1.9	10.00	0.12	4.65	
L0000859	0	0.72900E-06	563440.9	4183487.0	1.9	10.00	0.12	4.65	
L0000860	0	0.72900E-06	563441.1	4183487.0	1.9	10.00	0.12	4.65	

L0000861	0	0.72900E-06	563441.3	4183486.8	1.9	10.00	0.12	4.65
L0000862	0	0.72900E-06	563441.6	4183486.8	1.9	10.00	0.12	4.65
L0000863	0	0.72900E-06	563441.8	4183486.5	1.9	10.00	0.12	4.65
L0000864	0	0.72900E-06	563442.0	4183486.5	1.9	10.00	0.12	4.65
L0000865	0	0.72900E-06	563442.2	4183486.2	1.9	10.00	0.12	4.65
L0000866	0	0.72900E-06	563442.4	4183486.2	1.9	10.00	0.12	4.65
L0000867	0	0.72900E-06	563442.6	4183486.0	1.9	10.00	0.12	4.65
L0000868	0	0.72900E-06	563442.9	4183486.0	1.9	10.00	0.12	4.65
L0000869	0	0.72900E-06	563443.1	4183486.0	1.9	10.00	0.12	4.65
L0000870	0	0.72900E-06	563443.3	4183485.8	1.9	10.00	0.12	4.65
L0000871	0	0.72900E-06	563443.6	4183485.8	1.9	10.00	0.12	4.65
L0000872	0	0.72900E-06	563443.8	4183485.5	1.9	10.00	0.12	4.65
L0000873	0	0.72900E-06	563444.0	4183485.5	1.9	10.00	0.12	4.65
L0000874	0	0.72900E-06	563444.2	4183485.3	1.9	10.00	0.12	4.65
L0000875	0	0.72900E-06	563444.4	4183485.3	1.9	10.00	0.12	4.65
L0000876	0	0.72900E-06	563444.7	4183485.0	1.9	10.00	0.12	4.65
L0000877	0	0.72900E-06	563444.9	4183485.0	1.9	10.00	0.12	4.65
L0000878	0	0.72900E-06	563445.1	4183485.0	1.9	10.00	0.12	4.65
L0000879	0	0.72900E-06	563445.3	4183484.8	1.9	10.00	0.12	4.65
L0000880	0	0.72900E-06	563445.6	4183484.8	2.0	10.00	0.12	4.65

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CONC

RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000881	0	0.72900E-06	563445.8	4183484.5	2.0	10.00	0.12	4.65	
L0000882	0	0.72900E-06	563446.0	4183484.5	2.0	10.00	0.12	4.65	
L0000883	0	0.72900E-06	563446.2	4183484.2	2.0	10.00	0.12	4.65	
L0000884	0	0.72900E-06	563446.4	4183484.2	2.0	10.00	0.12	4.65	
L0000885	0	0.72900E-06	563446.7	4183484.0	2.0	10.00	0.12	4.65	
L0000886	0	0.72900E-06	563446.9	4183484.0	2.0	10.00	0.12	4.65	
L0000887	0	0.72900E-06	563447.1	4183483.8	2.0	10.00	0.12	4.65	
L0000888	0	0.72900E-06	563447.3	4183483.8	2.0	10.00	0.12	4.65	
L0000889	0	0.72900E-06	563447.6	4183483.8	2.0	10.00	0.12	4.65	
L0000890	0	0.72900E-06	563447.8	4183483.5	2.0	10.00	0.12	4.65	
L0000891	0	0.72900E-06	563448.0	4183483.5	2.0	10.00	0.12	4.65	
L0000892	0	0.72900E-06	563448.2	4183483.2	2.0	10.00	0.12	4.65	
L0000893	0	0.72900E-06	563448.4	4183483.2	2.0	10.00	0.12	4.65	
L0000894	0	0.72900E-06	563448.7	4183483.0	2.0	10.00	0.12	4.65	
L0000895	0	0.72900E-06	563448.9	4183483.0	2.0	10.00	0.12	4.65	
L0000896	0	0.72900E-06	563449.1	4183482.8	2.0	10.00	0.12	4.65	
L0000897	0	0.72900E-06	563449.3	4183482.8	2.0	10.00	0.12	4.65	
L0000898	0	0.72900E-06	563449.6	4183482.5	2.1	10.00	0.12	4.65	
L0000899	0	0.72900E-06	563449.8	4183482.5	2.1	10.00	0.12	4.65	
L0000900	0	0.72900E-06	563450.0	4183482.5	2.1	10.00	0.12	4.65	

L0000901	0	0.72900E-06	563450.3	4183482.2	2.1	10.00	0.12	4.65
L0000902	0	0.72900E-06	563450.4	4183482.2	2.1	10.00	0.12	4.65
L0000903	0	0.72900E-06	563450.7	4183482.0	2.1	10.00	0.12	4.65
L0000904	0	0.72900E-06	563450.9	4183482.0	2.1	10.00	0.12	4.65
L0000905	0	0.72900E-06	563451.1	4183481.8	2.1	10.00	0.12	4.65
L0000906	0	0.72900E-06	563451.4	4183481.8	2.2	10.00	0.12	4.65
L0000907	0	0.72900E-06	563451.6	4183481.5	2.2	10.00	0.12	4.65
L0000908	0	0.72900E-06	563451.8	4183481.5	2.2	10.00	0.12	4.65
L0000909	0	0.72900E-06	563452.0	4183481.5	2.2	10.00	0.12	4.65
L0000910	0	0.72900E-06	563452.2	4183481.2	2.2	10.00	0.12	4.65
L0000911	0	0.72900E-06	563452.4	4183481.2	2.2	10.00	0.12	4.65
L0000912	0	0.72900E-06	563452.7	4183481.0	2.2	10.00	0.12	4.65
L0000913	0	0.72900E-06	563452.9	4183481.0	2.2	10.00	0.12	4.65
L0000914	0	0.72900E-06	563453.1	4183480.8	2.3	10.00	0.12	4.65
L0000915	0	0.72900E-06	563453.4	4183480.8	2.3	10.00	0.12	4.65
L0000916	0	0.72900E-06	563453.6	4183480.5	2.3	10.00	0.12	4.65
L0000917	0	0.72900E-06	563453.8	4183480.5	2.3	10.00	0.12	4.65
L0000918	0	0.72900E-06	563454.0	4183480.2	2.3	10.00	0.12	4.65
L0000919	0	0.72900E-06	563454.2	4183480.2	2.3	10.00	0.12	4.65
L0000920	0	0.72900E-06	563454.5	4183480.2	2.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0000921	0	0.72900E-06	563454.7	4183480.0	2.4	10.00	0.12	4.65	
L0000922	0	0.72900E-06	563454.9	4183480.0	2.4	10.00	0.12	4.65	
L0000923	0	0.72900E-06	563455.1	4183479.8	2.4	10.00	0.12	4.65	
L0000924	0	0.72900E-06	563455.4	4183479.8	2.4	10.00	0.12	4.65	
L0000925	0	0.72900E-06	563455.6	4183479.5	2.4	10.00	0.12	4.65	
L0000926	0	0.72900E-06	563455.8	4183479.5	2.4	10.00	0.12	4.65	
L0000927	0	0.72900E-06	563456.1	4183479.2	2.5	10.00	0.12	4.65	
L0000928	0	0.72900E-06	563456.3	4183479.2	2.5	10.00	0.12	4.65	
L0000929	0	0.72900E-06	563456.5	4183479.0	2.5	10.00	0.12	4.65	
L0000930	0	0.72900E-06	563456.7	4183479.0	2.5	10.00	0.12	4.65	
L0000931	0	0.72900E-06	563456.9	4183479.0	2.5	10.00	0.12	4.65	
L0000932	0	0.72900E-06	563457.1	4183478.8	2.5	10.00	0.12	4.65	
L0000933	0	0.72900E-06	563457.4	4183478.8	2.5	10.00	0.12	4.65	
L0000934	0	0.72900E-06	563457.6	4183478.5	2.6	10.00	0.12	4.65	
L0000935	0	0.72900E-06	563457.8	4183478.5	2.6	10.00	0.12	4.65	
L0000936	0	0.72900E-06	563458.1	4183478.3	2.6	10.00	0.12	4.65	
L0000937	0	0.72900E-06	563458.2	4183478.3	2.6	10.00	0.12	4.65	
L0000938	0	0.72900E-06	563458.5	4183478.0	2.6	10.00	0.12	4.65	
L0000939	0	0.72900E-06	563458.7	4183478.0	2.6	10.00	0.12	4.65	
L0000940	0	0.72900E-06	563458.9	4183477.8	2.7	10.00	0.12	4.65	

L0000941	0	0.72900E-06	563459.1	4183477.8	2.7	10.00	0.12	4.65
L0000942	0	0.72900E-06	563459.4	4183477.8	2.7	10.00	0.12	4.65
L0000943	0	0.72900E-06	563459.6	4183477.5	2.7	10.00	0.12	4.65
L0000944	0	0.72900E-06	563459.8	4183477.5	2.7	10.00	0.12	4.65
L0000945	0	0.72900E-06	563460.1	4183477.3	2.7	10.00	0.12	4.65
L0000946	0	0.72900E-06	563460.3	4183477.3	2.7	10.00	0.12	4.65
L0000947	0	0.72900E-06	563460.5	4183477.0	2.7	10.00	0.12	4.65
L0000948	0	0.72900E-06	563460.7	4183477.0	2.7	10.00	0.12	4.65
L0000949	0	0.72900E-06	563460.9	4183476.8	2.8	10.00	0.12	4.65
L0000950	0	0.72900E-06	563461.2	4183476.8	2.8	10.00	0.12	4.65
L0000951	0	0.72900E-06	563461.4	4183476.8	2.8	10.00	0.12	4.65
L0000952	0	0.72900E-06	563461.6	4183476.5	2.8	10.00	0.12	4.65
L0000953	0	0.72900E-06	563461.8	4183476.5	2.8	10.00	0.12	4.65
L0000954	0	0.72900E-06	563462.1	4183476.2	2.8	10.00	0.12	4.65
L0000955	0	0.72900E-06	563462.2	4183476.2	2.8	10.00	0.12	4.65
L0000956	0	0.72900E-06	563462.5	4183476.0	2.8	10.00	0.12	4.65
L0000957	0	0.72900E-06	563462.8	4183476.0	2.8	10.00	0.12	4.65
L0000958	0	0.72900E-06	563462.9	4183475.8	2.8	10.00	0.12	4.65
L0000959	0	0.72900E-06	563463.2	4183475.8	2.8	10.00	0.12	4.65
L0000960	0	0.72900E-06	563463.4	4183475.5	2.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000961	0	0.72900E-06	563463.6	4183475.5	2.8	10.00	0.12	4.65	
L0000962	0	0.72900E-06	563463.8	4183475.5	2.8	10.00	0.12	4.65	
L0000963	0	0.72900E-06	563464.1	4183475.2	2.8	10.00	0.12	4.65	
L0000964	0	0.72900E-06	563464.3	4183475.2	2.8	10.00	0.12	4.65	
L0000965	0	0.72900E-06	563464.5	4183475.0	2.8	10.00	0.12	4.65	
L0000966	0	0.72900E-06	563464.8	4183475.0	2.8	10.00	0.12	4.65	
L0000967	0	0.72900E-06	563464.9	4183474.8	2.9	10.00	0.12	4.65	
L0000968	0	0.72900E-06	563465.2	4183474.8	2.9	10.00	0.12	4.65	
L0000969	0	0.72900E-06	563465.4	4183474.5	2.9	10.00	0.12	4.65	
L0000970	0	0.72900E-06	563465.6	4183474.5	2.9	10.00	0.12	4.65	
L0000971	0	0.72900E-06	563465.9	4183474.2	2.9	10.00	0.12	4.65	
L0000972	0	0.72900E-06	563466.1	4183474.2	2.9	10.00	0.12	4.65	
L0000973	0	0.72900E-06	563466.3	4183474.2	2.9	10.00	0.12	4.65	
L0000974	0	0.72900E-06	563466.5	4183474.0	2.9	10.00	0.12	4.65	
L0000975	0	0.72900E-06	563466.8	4183474.0	2.9	10.00	0.12	4.65	
L0000976	0	0.72900E-06	563466.9	4183473.8	2.9	10.00	0.12	4.65	
L0000977	0	0.72900E-06	563467.2	4183473.8	2.9	10.00	0.12	4.65	
L0000978	0	0.72900E-06	563467.4	4183473.5	2.9	10.00	0.12	4.65	
L0000979	0	0.72900E-06	563467.6	4183473.5	2.9	10.00	0.12	4.65	
L0000980	0	0.72900E-06	563467.9	4183473.2	2.9	10.00	0.12	4.65	

L0000981	0	0.72900E-06	563468.1	4183473.2	2.9	10.00	0.12	4.65
L0000982	0	0.72900E-06	563468.3	4183473.0	2.9	10.00	0.12	4.65
L0000983	0	0.72900E-06	563468.5	4183473.0	2.8	10.00	0.12	4.65
L0000984	0	0.72900E-06	563468.8	4183473.0	2.8	10.00	0.12	4.65
L0000985	0	0.72900E-06	563468.9	4183472.8	2.8	10.00	0.12	4.65
L0000986	0	0.72900E-06	563469.2	4183472.8	2.8	10.00	0.12	4.65
L0000987	0	0.72900E-06	563469.4	4183472.5	2.8	10.00	0.12	4.65
L0000988	0	0.72900E-06	563469.6	4183472.5	2.8	10.00	0.12	4.65
L0000989	0	0.72900E-06	563469.9	4183472.3	2.8	10.00	0.12	4.65
L0000990	0	0.72900E-06	563470.1	4183472.3	2.8	10.00	0.12	4.65
L0000991	0	0.72900E-06	563470.3	4183472.0	2.8	10.00	0.12	4.65
L0000992	0	0.72900E-06	563470.5	4183472.0	2.8	10.00	0.12	4.65
L0000993	0	0.72900E-06	563470.8	4183472.0	2.8	10.00	0.12	4.65
L0000994	0	0.72900E-06	563471.0	4183471.8	2.8	10.00	0.12	4.65
L0000995	0	0.72900E-06	563471.2	4183471.8	2.8	10.00	0.12	4.65
L0000996	0	0.72900E-06	563471.4	4183471.5	2.8	10.00	0.12	4.65
L0000997	0	0.72900E-06	563471.6	4183471.5	2.8	10.00	0.12	4.65
L0000998	0	0.72900E-06	563471.9	4183471.2	2.8	10.00	0.12	4.65
L0000999	0	0.72900E-06	563472.1	4183471.2	3.0	10.00	0.12	4.65
L0001000	0	0.72900E-06	563472.3	4183471.0	3.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0001001	0	0.72900E-06	563472.6	4183471.0	3.0	10.00	0.12	4.65	
L0001002	0	0.72900E-06	563472.8	4183470.8	3.0	10.00	0.12	4.65	
L0001003	0	0.72900E-06	563473.0	4183470.8	3.0	10.00	0.12	4.65	
L0001004	0	0.72900E-06	563473.2	4183470.8	3.0	10.00	0.12	4.65	
L0001005	0	0.72900E-06	563473.4	4183470.5	3.0	10.00	0.12	4.65	
L0001006	0	0.72900E-06	563473.6	4183470.5	3.0	10.00	0.12	4.65	
L0001007	0	0.72900E-06	563473.9	4183470.2	3.0	10.00	0.12	4.65	
L0001008	0	0.72900E-06	563474.1	4183470.2	3.0	10.00	0.12	4.65	
L0001009	0	0.72900E-06	563474.3	4183470.0	3.0	10.00	0.12	4.65	
L0001010	0	0.72900E-06	563474.6	4183470.0	3.0	10.00	0.12	4.65	
L0001011	0	0.72900E-06	563474.8	4183469.8	3.0	10.00	0.12	4.65	
L0001012	0	0.72900E-06	563475.0	4183469.8	3.0	10.00	0.12	4.65	
L0001013	0	0.72900E-06	563475.2	4183469.5	3.0	10.00	0.12	4.65	
L0001014	0	0.72900E-06	563475.4	4183469.5	3.0	10.00	0.12	4.65	
L0001015	0	0.72900E-06	563475.6	4183469.5	3.0	10.00	0.12	4.65	
L0001016	0	0.72900E-06	563475.9	4183469.2	3.0	10.00	0.12	4.65	
L0001017	0	0.72900E-06	563476.1	4183469.2	3.0	10.00	0.12	4.65	
L0001018	0	0.72900E-06	563476.3	4183469.0	3.0	10.00	0.12	4.65	
L0001019	0	0.72900E-06	563476.6	4183469.0	3.0	10.00	0.12	4.65	
L0001020	0	0.72900E-06	563476.8	4183468.8	3.0	10.00	0.12	4.65	

L0001021	0	0.72900E-06	563477.0	4183468.8	3.0	10.00	0.12	4.65
L0001022	0	0.72900E-06	563477.2	4183468.5	3.0	10.00	0.12	4.65
L0001023	0	0.72900E-06	563477.4	4183468.5	3.0	10.00	0.12	4.65
L0001024	0	0.72900E-06	563477.7	4183468.5	3.0	10.00	0.12	4.65
L0001025	0	0.72900E-06	563477.9	4183468.2	3.0	10.00	0.12	4.65
L0001026	0	0.72900E-06	563478.1	4183468.2	3.0	10.00	0.12	4.65
L0001027	0	0.72900E-06	563478.3	4183468.0	3.0	10.00	0.12	4.65
L0001028	0	0.72900E-06	563478.6	4183468.0	3.0	10.00	0.12	4.65
L0001029	0	0.72900E-06	563478.8	4183467.8	3.0	10.00	0.12	4.65
L0001030	0	0.72900E-06	563479.0	4183467.8	3.0	10.00	0.12	4.65
L0001031	0	0.72900E-06	563479.3	4183467.5	3.0	10.00	0.12	4.65
L0001032	0	0.72900E-06	563479.4	4183467.5	3.0	10.00	0.12	4.65
L0001033	0	0.72900E-06	563479.7	4183467.2	3.0	10.00	0.12	4.65
L0001034	0	0.72900E-06	563479.9	4183467.2	3.0	10.00	0.12	4.65
L0001035	0	0.72900E-06	563480.1	4183467.2	3.0	10.00	0.12	4.65
L0001036	0	0.72900E-06	563480.3	4183467.0	3.0	10.00	0.12	4.65
L0001037	0	0.72900E-06	563480.6	4183467.0	3.0	10.00	0.12	4.65
L0001038	0	0.72900E-06	563480.8	4183466.8	3.0	10.00	0.12	4.65
L0001039	0	0.72900E-06	563481.0	4183466.8	3.0	10.00	0.12	4.65
L0001040	0	0.72900E-06	563481.2	4183466.5	3.0	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001041	0	0.72900E-06	563481.4	4183466.5	3.0	10.00	0.12	4.65	
L0001042	0	0.72900E-06	563481.7	4183466.3	3.0	10.00	0.12	4.65	
L0001043	0	0.72900E-06	563481.9	4183466.3	3.0	10.00	0.12	4.65	
L0001044	0	0.72900E-06	563482.1	4183466.0	3.0	10.00	0.12	4.65	
L0001045	0	0.72900E-06	563482.4	4183466.0	3.0	10.00	0.12	4.65	
L0001046	0	0.72900E-06	563482.6	4183466.0	3.0	10.00	0.12	4.65	
L0001047	0	0.72900E-06	563482.8	4183465.8	3.0	10.00	0.12	4.65	
L0001048	0	0.72900E-06	563483.0	4183465.8	3.0	10.00	0.12	4.65	
L0001049	0	0.72900E-06	563483.2	4183465.5	3.0	10.00	0.12	4.65	
L0001050	0	0.72900E-06	563483.4	4183465.5	3.0	10.00	0.12	4.65	
L0001051	0	0.72900E-06	563483.7	4183465.2	3.0	10.00	0.12	4.65	
L0001052	0	0.72900E-06	563483.9	4183465.2	3.0	10.00	0.12	4.65	
L0001053	0	0.72900E-06	563484.1	4183465.0	3.0	10.00	0.12	4.65	
L0001054	0	0.72900E-06	563484.4	4183465.0	3.0	10.00	0.12	4.65	
L0001055	0	0.72900E-06	563484.6	4183464.8	3.0	10.00	0.12	4.65	
L0001056	0	0.72900E-06	563484.8	4183464.8	3.0	10.00	0.12	4.65	
L0001057	0	0.72900E-06	563485.0	4183464.8	3.0	10.00	0.12	4.65	
L0001058	0	0.72900E-06	563485.2	4183464.5	3.0	10.00	0.12	4.65	
L0001059	0	0.72900E-06	563485.4	4183464.5	3.0	10.00	0.12	4.65	
L0001060	0	0.72900E-06	563485.7	4183464.2	3.0	10.00	0.12	4.65	

L0001061	0	0.72900E-06	563485.9	4183464.2	3.0	10.00	0.12	4.65
L0001062	0	0.72900E-06	563486.1	4183464.0	3.0	10.00	0.12	4.65
L0001063	0	0.72900E-06	563486.4	4183464.0	3.0	10.00	0.12	4.65
L0001064	0	0.72900E-06	563486.6	4183463.8	2.8	10.00	0.12	4.65
L0001065	0	0.72900E-06	563486.8	4183463.8	2.8	10.00	0.12	4.65
L0001066	0	0.72900E-06	563487.0	4183463.8	2.8	10.00	0.12	4.65
L0001067	0	0.72900E-06	563487.2	4183463.5	2.8	10.00	0.12	4.65
L0001068	0	0.72900E-06	563487.5	4183463.5	2.8	10.00	0.12	4.65
L0001069	0	0.72900E-06	563487.7	4183463.2	2.7	10.00	0.12	4.65
L0001070	0	0.72900E-06	563487.9	4183463.2	2.7	10.00	0.12	4.65
L0001071	0	0.72900E-06	563488.1	4183463.0	2.7	10.00	0.12	4.65
L0001072	0	0.72900E-06	563488.4	4183463.0	2.7	10.00	0.12	4.65
L0001073	0	0.72900E-06	563488.6	4183462.8	2.7	10.00	0.12	4.65
L0001074	0	0.72900E-06	563488.8	4183462.8	2.7	10.00	0.12	4.65
L0001075	0	0.72900E-06	563489.1	4183462.5	2.6	10.00	0.12	4.65
L0001076	0	0.72900E-06	563489.2	4183462.5	2.6	10.00	0.12	4.65
L0001077	0	0.72900E-06	563489.5	4183462.5	2.6	10.00	0.12	4.65
L0001078	0	0.72900E-06	563489.7	4183462.2	2.6	10.00	0.12	4.65
L0001079	0	0.72900E-06	563489.9	4183462.2	2.6	10.00	0.12	4.65
L0001080	0	0.72900E-06	563490.1	4183462.0	2.5	10.00	0.12	4.65

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CONC

RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001081	0	0.72900E-06	563490.4	4183462.0	2.5	10.00	0.12	4.65	
L0001082	0	0.72900E-06	563490.6	4183461.8	2.5	10.00	0.12	4.65	
L0001083	0	0.72900E-06	563490.8	4183461.8	2.5	10.00	0.12	4.65	
L0001084	0	0.72900E-06	563491.1	4183461.5	2.4	10.00	0.12	4.65	
L0001085	0	0.72900E-06	563491.3	4183461.5	2.4	10.00	0.12	4.65	
L0001086	0	0.72900E-06	563491.5	4183461.2	2.4	10.00	0.12	4.65	
L0001087	0	0.72900E-06	563491.7	4183461.2	2.4	10.00	0.12	4.65	
L0001088	0	0.72900E-06	563491.9	4183461.2	2.3	10.00	0.12	4.65	
L0001089	0	0.72900E-06	563492.1	4183461.0	2.3	10.00	0.12	4.65	
L0001090	0	0.72900E-06	563492.4	4183461.0	2.3	10.00	0.12	4.65	
L0001091	0	0.72900E-06	563492.6	4183460.8	2.2	10.00	0.12	4.65	
L0001092	0	0.72900E-06	563492.8	4183460.8	2.2	10.00	0.12	4.65	
L0001093	0	0.72900E-06	563493.1	4183460.5	2.2	10.00	0.12	4.65	
L0001094	0	0.72900E-06	563493.2	4183460.5	2.2	10.00	0.12	4.65	
L0001095	0	0.72900E-06	563493.5	4183460.2	2.1	10.00	0.12	4.65	
L0001096	0	0.72900E-06	563493.7	4183460.2	2.1	10.00	0.12	4.65	
L0001097	0	0.72900E-06	563493.9	4183460.0	2.1	10.00	0.12	4.65	
L0001098	0	0.72900E-06	563494.2	4183460.0	2.1	10.00	0.12	4.65	
L0001099	0	0.72900E-06	563494.4	4183460.0	2.0	10.00	0.12	4.65	
L0001100	0	0.72900E-06	563494.6	4183459.8	2.0	10.00	0.12	4.65	

L0001101	0	0.72900E-06	563494.8	4183459.8	2.0	10.00	0.12	4.65
L0001102	0	0.72900E-06	563495.1	4183459.5	2.0	10.00	0.12	4.65
L0001103	0	0.72900E-06	563495.2	4183459.5	1.9	10.00	0.12	4.65
L0001104	0	0.72900E-06	563495.5	4183459.3	1.9	10.00	0.12	4.65
L0001105	0	0.72900E-06	563495.8	4183459.3	1.9	10.00	0.12	4.65
L0001106	0	0.72900E-06	563495.9	4183459.0	1.8	10.00	0.12	4.65
L0001107	0	0.72900E-06	563496.2	4183459.0	2.4	10.00	0.12	4.65
L0001108	0	0.72900E-06	563496.4	4183459.0	2.4	10.00	0.12	4.65
L0001109	0	0.72900E-06	563496.6	4183458.8	2.4	10.00	0.12	4.65
L0001110	0	0.72900E-06	563496.8	4183458.8	2.4	10.00	0.12	4.65
L0001111	0	0.72900E-06	563497.1	4183458.5	2.4	10.00	0.12	4.65
L0001112	0	0.72900E-06	563497.3	4183458.5	2.4	10.00	0.12	4.65
L0001113	0	0.72900E-06	563497.5	4183458.3	2.4	10.00	0.12	4.65
L0001114	0	0.72900E-06	563497.8	4183458.3	2.4	10.00	0.12	4.65
L0001115	0	0.72900E-06	563497.9	4183458.0	2.4	10.00	0.12	4.65
L0001116	0	0.72900E-06	563498.2	4183458.0	2.4	10.00	0.12	4.65
L0001117	0	0.72900E-06	563498.4	4183457.8	2.4	10.00	0.12	4.65
L0001118	0	0.72900E-06	563498.6	4183457.8	2.4	10.00	0.12	4.65
L0001119	0	0.72900E-06	563498.9	4183457.8	2.4	10.00	0.12	4.65
L0001120	0	0.72900E-06	563499.1	4183457.5	2.4	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001121	0	0.72900E-06	563499.3	4183457.5	2.4	10.00	0.12	4.65	
L0001122	0	0.72900E-06	563499.5	4183457.2	2.3	10.00	0.12	4.65	
L0001123	0	0.72900E-06	563499.8	4183457.2	2.3	10.00	0.12	4.65	
L0001124	0	0.72900E-06	563499.9	4183457.0	2.3	10.00	0.12	4.65	
L0001125	0	0.72900E-06	563500.2	4183457.0	2.3	10.00	0.12	4.65	
L0001126	0	0.72900E-06	563500.4	4183456.8	2.3	10.00	0.12	4.65	
L0001127	0	0.72900E-06	563500.6	4183456.8	2.3	10.00	0.12	4.65	
L0001128	0	0.72900E-06	563500.9	4183456.5	2.3	10.00	0.12	4.65	
L0001129	0	0.72900E-06	563501.1	4183456.5	2.3	10.00	0.12	4.65	
L0001130	0	0.72900E-06	563501.3	4183456.5	2.3	10.00	0.12	4.65	
L0001131	0	0.72900E-06	563501.5	4183456.2	2.3	10.00	0.12	4.65	
L0001132	0	0.72900E-06	563501.8	4183456.2	2.3	10.00	0.12	4.65	
L0001133	0	0.72900E-06	563501.9	4183456.0	2.2	10.00	0.12	4.65	
L0001134	0	0.72900E-06	563502.2	4183456.0	2.2	10.00	0.12	4.65	
L0001135	0	0.72900E-06	563502.4	4183455.8	2.2	10.00	0.12	4.65	
L0001136	0	0.72900E-06	563502.6	4183455.8	2.2	10.00	0.12	4.65	
L0001137	0	0.72900E-06	563502.9	4183455.5	2.2	10.00	0.12	4.65	
L0001138	0	0.72900E-06	563503.1	4183455.5	2.2	10.00	0.12	4.65	
L0001139	0	0.72900E-06	563503.3	4183455.5	2.2	10.00	0.12	4.65	
L0001140	0	0.72900E-06	563503.5	4183455.2	2.1	10.00	0.12	4.65	

L0001141	0	0.72900E-06	563503.8	4183455.2	2.1	10.00	0.12	4.65
L0001142	0	0.72900E-06	563504.0	4183455.0	2.1	10.00	0.12	4.65
L0001143	0	0.72900E-06	563504.2	4183455.0	2.1	10.00	0.12	4.65
L0001144	0	0.72900E-06	563504.4	4183454.8	2.0	10.00	0.12	4.65
L0001145	0	0.72900E-06	563504.6	4183454.8	2.0	10.00	0.12	4.65
L0001146	0	0.72900E-06	563504.9	4183454.5	2.0	10.00	0.12	4.65
L0001147	0	0.72900E-06	563505.1	4183454.5	2.0	10.00	0.12	4.65
L0001148	0	0.72900E-06	563505.3	4183454.2	2.0	10.00	0.12	4.65
L0001149	0	0.72900E-06	563505.6	4183454.2	2.0	10.00	0.12	4.65
L0001150	0	0.72900E-06	563505.8	4183454.2	2.0	10.00	0.12	4.65
L0001151	0	0.72900E-06	563506.0	4183454.0	1.9	10.00	0.12	4.65
L0001152	0	0.72900E-06	563506.2	4183454.0	1.9	10.00	0.12	4.65
L0001153	0	0.72900E-06	563506.4	4183453.8	1.9	10.00	0.12	4.65
L0001154	0	0.72900E-06	563506.6	4183453.8	1.9	10.00	0.12	4.65
L0001155	0	0.72900E-06	563506.9	4183453.5	1.8	10.00	0.12	4.65
L0001156	0	0.72900E-06	563507.1	4183453.5	1.8	10.00	0.12	4.65
L0001157	0	0.72900E-06	563507.3	4183453.3	1.7	10.00	0.12	4.65
L0001158	0	0.72900E-06	563507.6	4183453.3	1.7	10.00	0.12	4.65
L0001159	0	0.72900E-06	563507.8	4183453.0	1.7	10.00	0.12	4.65
L0001160	0	0.72900E-06	563508.0	4183453.0	1.7	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001161	0	0.72900E-06	563508.2	4183453.0	1.7	10.00	0.12	4.65	
L0001162	0	0.72900E-06	563508.4	4183452.8	1.6	10.00	0.12	4.65	
L0001163	0	0.72900E-06	563508.7	4183452.8	1.6	10.00	0.12	4.65	
L0001164	0	0.72900E-06	563508.9	4183452.5	1.6	10.00	0.12	4.65	
L0001165	0	0.72900E-06	563509.1	4183452.5	1.6	10.00	0.12	4.65	
L0001166	0	0.72900E-06	563509.3	4183452.2	1.5	10.00	0.12	4.65	
L0001167	0	0.72900E-06	563509.6	4183452.2	1.5	10.00	0.12	4.65	
L0001168	0	0.72900E-06	563509.8	4183452.0	1.4	10.00	0.12	4.65	
L0001169	0	0.72900E-06	563510.0	4183452.0	1.4	10.00	0.12	4.65	
L0001170	0	0.72900E-06	563510.2	4183451.8	1.4	10.00	0.12	4.65	
L0001171	0	0.72900E-06	563510.4	4183451.8	1.4	10.00	0.12	4.65	
L0001172	0	0.72900E-06	563510.7	4183451.8	1.4	10.00	0.12	4.65	
L0001173	0	0.72900E-06	563510.9	4183451.5	1.3	10.00	0.12	4.65	
L0001174	0	0.72900E-06	563511.1	4183451.5	1.3	10.00	0.12	4.65	
L0001175	0	0.72900E-06	563511.3	4183451.2	1.3	10.00	0.12	4.65	
L0001176	0	0.72900E-06	563511.6	4183451.2	1.3	10.00	0.12	4.65	
L0001177	0	0.72900E-06	563511.8	4183451.0	1.2	10.00	0.12	4.65	
L0001178	0	0.72900E-06	563512.0	4183451.0	1.2	10.00	0.12	4.65	
L0001179	0	0.72900E-06	563512.2	4183450.8	1.2	10.00	0.12	4.65	
L0001180	0	0.72900E-06	563512.4	4183450.8	1.2	10.00	0.12	4.65	

L0001181	0	0.72900E-06	563512.7	4183450.8	1.2	10.00	0.12	4.65
L0001182	0	0.72900E-06	563512.9	4183450.5	1.1	10.00	0.12	4.65
L0001183	0	0.72900E-06	563513.1	4183450.5	1.1	10.00	0.12	4.65
L0001184	0	0.72900E-06	563513.3	4183450.2	1.1	10.00	0.12	4.65
L0001185	0	0.72900E-06	563513.6	4183450.2	1.1	10.00	0.12	4.65
L0001186	0	0.72900E-06	563513.8	4183450.0	1.0	10.00	0.12	4.65
L0001187	0	0.72900E-06	563514.0	4183450.0	1.0	10.00	0.12	4.65
L0001188	0	0.72900E-06	563514.2	4183449.8	1.0	10.00	0.12	4.65
L0001189	0	0.72900E-06	563514.4	4183449.8	1.0	10.00	0.12	4.65
L0001190	0	0.72900E-06	563514.7	4183449.5	1.0	10.00	0.12	4.65
L0001191	0	0.72900E-06	563514.9	4183449.5	1.0	10.00	0.12	4.65
L0001192	0	0.72900E-06	563515.1	4183449.5	1.0	10.00	0.12	4.65
L0001193	0	0.72900E-06	563515.4	4183449.2	0.9	10.00	0.12	4.65
L0001194	0	0.72900E-06	563515.6	4183449.2	0.9	10.00	0.12	4.65
L0001195	0	0.72900E-06	563515.8	4183449.0	0.9	10.00	0.12	4.65
L0001196	0	0.72900E-06	563516.0	4183449.0	0.9	10.00	0.12	4.65
L0001197	0	0.72900E-06	563516.2	4183448.8	0.9	10.00	0.12	4.65
L0001198	0	0.72900E-06	563516.4	4183448.8	0.9	10.00	0.12	4.65
L0001199	0	0.72900E-06	563516.7	4183448.5	0.9	10.00	0.12	4.65
L0001200	0	0.72900E-06	563516.9	4183448.5	0.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001201	0	0.72900E-06	563517.1	4183448.2	0.8	10.00	0.12	4.65	
L0001202	0	0.72900E-06	563517.4	4183448.2	0.8	10.00	0.12	4.65	
L0001203	0	0.72900E-06	563517.6	4183448.2	0.9	10.00	0.12	4.65	
L0001204	0	0.72900E-06	563517.8	4183448.0	0.8	10.00	0.12	4.65	
L0001205	0	0.72900E-06	563518.0	4183448.0	0.8	10.00	0.12	4.65	
L0001206	0	0.72900E-06	563518.2	4183447.8	0.8	10.00	0.12	4.65	
L0001207	0	0.72900E-06	563518.4	4183447.8	0.8	10.00	0.12	4.65	
L0001208	0	0.72900E-06	563518.7	4183447.5	0.8	10.00	0.12	4.65	
L0001209	0	0.72900E-06	563518.9	4183447.5	0.8	10.00	0.12	4.65	
L0001210	0	0.72900E-06	563519.1	4183447.3	0.8	10.00	0.12	4.65	
L0001211	0	0.72900E-06	563519.4	4183447.3	0.8	10.00	0.12	4.65	
L0001212	0	0.72900E-06	563519.6	4183447.3	0.8	10.00	0.12	4.65	
L0001213	0	0.72900E-06	563519.8	4183447.0	0.8	10.00	0.12	4.65	
L0001214	0	0.72900E-06	563520.0	4183447.0	3.0	10.00	0.12	4.65	
L0001215	0	0.72900E-06	563520.2	4183446.8	3.0	10.00	0.12	4.65	
L0001216	0	0.72900E-06	563520.5	4183446.8	3.0	10.00	0.12	4.65	
L0001217	0	0.72900E-06	563520.7	4183446.5	2.9	10.00	0.12	4.65	
L0001218	0	0.72900E-06	563520.9	4183446.5	2.9	10.00	0.12	4.65	
L0001219	0	0.72900E-06	563521.1	4183446.3	2.9	10.00	0.12	4.65	
L0001220	0	0.72900E-06	563521.4	4183446.3	2.9	10.00	0.12	4.65	

L0001221	0	0.72900E-06	563521.6	4183446.0	2.9	10.00	0.12	4.65
L0001222	0	0.72900E-06	563521.8	4183446.0	2.9	10.00	0.12	4.65
L0001223	0	0.72900E-06	563522.1	4183446.0	2.8	10.00	0.12	4.65
L0001224	0	0.72900E-06	563522.2	4183445.8	2.8	10.00	0.12	4.65
L0001225	0	0.72900E-06	563522.5	4183445.8	2.8	10.00	0.12	4.65
L0001226	0	0.72900E-06	563522.7	4183445.5	2.8	10.00	0.12	4.65
L0001227	0	0.72900E-06	563522.9	4183445.5	2.8	10.00	0.12	4.65
L0001228	0	0.72900E-06	563523.1	4183445.2	2.7	10.00	0.12	4.65
L0001229	0	0.72900E-06	563523.4	4183445.2	2.7	10.00	0.12	4.65
L0001230	0	0.72900E-06	563523.6	4183445.0	2.7	10.00	0.12	4.65
L0001231	0	0.72900E-06	563523.8	4183445.0	2.7	10.00	0.12	4.65
L0001232	0	0.72900E-06	563524.1	4183444.8	2.7	10.00	0.12	4.65
L0001233	0	0.72900E-06	563524.2	4183444.8	2.7	10.00	0.12	4.65
L0001234	0	0.72900E-06	563524.5	4183444.8	2.6	10.00	0.12	4.65
L0001235	0	0.72900E-06	563524.7	4183444.5	2.6	10.00	0.12	4.65
L0001236	0	0.72900E-06	563524.9	4183444.5	2.6	10.00	0.12	4.65
L0001237	0	0.72900E-06	563525.2	4183444.2	2.6	10.00	0.12	4.65
L0001238	0	0.72900E-06	563525.4	4183444.2	2.6	10.00	0.12	4.65
L0001239	0	0.72900E-06	563525.6	4183444.0	2.5	10.00	0.12	4.65
L0001240	0	0.72900E-06	563525.8	4183444.0	2.5	10.00	0.12	4.65

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DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0001241	0	0.72900E-06	563526.1	4183443.8	2.5	10.00	0.12	4.65	
L0001242	0	0.72900E-06	563526.3	4183443.8	2.5	10.00	0.12	4.65	
L0001243	0	0.72900E-06	563526.5	4183443.5	2.5	10.00	0.12	4.65	
L0001244	0	0.72900E-06	563526.7	4183443.5	2.4	10.00	0.12	4.65	
L0001245	0	0.72900E-06	563526.9	4183443.5	2.4	10.00	0.12	4.65	
L0001246	0	0.72900E-06	563527.2	4183443.2	2.4	10.00	0.12	4.65	
L0001247	0	0.72900E-06	563527.4	4183443.2	2.4	10.00	0.12	4.65	
L0001248	0	0.72900E-06	563527.6	4183443.0	2.4	10.00	0.12	4.65	
L0001249	0	0.72900E-06	563527.8	4183443.0	2.3	10.00	0.12	4.65	
L0001250	0	0.72900E-06	563528.1	4183442.8	2.3	10.00	0.12	4.65	
L0001251	0	0.72900E-06	563528.2	4183442.8	2.3	10.00	0.12	4.65	
L0001252	0	0.72900E-06	563528.5	4183442.5	2.3	10.00	0.12	4.65	
L0001253	0	0.72900E-06	563528.8	4183442.5	2.3	10.00	0.12	4.65	
L0001254	0	0.72900E-06	563528.9	4183442.5	2.3	10.00	0.12	4.65	
L0001255	0	0.72900E-06	563529.2	4183442.2	2.2	10.00	0.12	4.65	
L0001256	0	0.72900E-06	563529.4	4183442.2	2.2	10.00	0.12	4.65	
L0001257	0	0.72900E-06	563529.6	4183442.0	2.2	10.00	0.12	4.65	
L0001258	0	0.72900E-06	563529.8	4183442.0	2.2	10.00	0.12	4.65	
L0001259	0	0.72900E-06	563530.1	4183441.8	2.2	10.00	0.12	4.65	
L0001260	0	0.72900E-06	563530.3	4183441.8	2.2	10.00	0.12	4.65	

L0001261	0	0.72900E-06	563530.5	4183441.5	2.2	10.00	0.12	4.65
L0001262	0	0.72900E-06	563530.8	4183441.5	2.1	10.00	0.12	4.65
L0001263	0	0.72900E-06	563530.9	4183441.2	2.1	10.00	0.12	4.65
L0001264	0	0.72900E-06	563531.2	4183441.2	2.1	10.00	0.12	4.65
L0001265	0	0.72900E-06	563531.4	4183441.2	2.1	10.00	0.12	4.65
L0001266	0	0.72900E-06	563531.6	4183441.0	2.1	10.00	0.12	4.65
L0001267	0	0.72900E-06	563531.9	4183441.0	2.1	10.00	0.12	4.65
L0001268	0	0.72900E-06	563532.1	4183440.8	2.1	10.00	0.12	4.65
L0001269	0	0.72900E-06	563532.3	4183440.8	2.1	10.00	0.12	4.65
L0001270	0	0.72900E-06	563532.5	4183440.5	2.1	10.00	0.12	4.65
L0001271	0	0.72900E-06	563532.8	4183440.5	2.0	10.00	0.12	4.65
L0001272	0	0.72900E-06	563532.9	4183440.3	2.0	10.00	0.12	4.65
L0001273	0	0.72900E-06	563533.2	4183440.3	2.0	10.00	0.12	4.65
L0001274	0	0.72900E-06	563533.4	4183440.0	2.0	10.00	0.12	4.65
L0001275	0	0.72900E-06	563533.6	4183440.0	2.0	10.00	0.12	4.65
L0001276	0	0.72900E-06	563533.9	4183440.0	2.0	10.00	0.12	4.65
L0001277	0	0.72900E-06	563534.1	4183439.8	2.0	10.00	0.12	4.65
L0001278	0	0.72900E-06	563534.3	4183439.8	2.0	10.00	0.12	4.65
L0001279	0	0.72900E-06	563534.5	4183439.5	2.0	10.00	0.12	4.65
L0001280	0	0.72900E-06	563534.8	4183439.5	2.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001281	0	0.72900E-06	563535.0	4183439.3	2.0	10.00	0.12	4.65	
L0001282	0	0.72900E-06	563535.2	4183439.3	2.0	10.00	0.12	4.65	
L0001283	0	0.72900E-06	563535.4	4183439.0	2.0	10.00	0.12	4.65	
L0001284	0	0.72900E-06	563535.6	4183439.0	2.0	10.00	0.12	4.65	
L0001285	0	0.72900E-06	563535.9	4183438.8	2.0	10.00	0.12	4.65	
L0001286	0	0.72900E-06	563536.1	4183438.8	2.0	10.00	0.12	4.65	
L0001287	0	0.72900E-06	563536.3	4183438.8	2.0	10.00	0.12	4.65	
L0001288	0	0.72900E-06	563536.5	4183438.5	2.0	10.00	0.12	4.65	
L0001289	0	0.72900E-06	563536.8	4183438.5	2.0	10.00	0.12	4.65	
L0001290	0	0.72900E-06	563537.0	4183438.2	2.0	10.00	0.12	4.65	
L0001291	0	0.72900E-06	563537.2	4183438.2	2.0	10.00	0.12	4.65	
L0001292	0	0.72900E-06	563537.4	4183438.0	2.0	10.00	0.12	4.65	
L0001293	0	0.72900E-06	563537.6	4183438.0	2.0	10.00	0.12	4.65	
L0001294	0	0.72900E-06	563537.9	4183437.8	2.0	10.00	0.12	4.65	
L0001295	0	0.72900E-06	563538.1	4183437.8	2.0	10.00	0.12	4.65	
L0001296	0	0.72900E-06	563538.3	4183437.8	2.0	10.00	0.12	4.65	
L0001297	0	0.72900E-06	563538.6	4183437.5	2.0	10.00	0.12	4.65	
L0001298	0	0.72900E-06	563538.8	4183437.5	2.0	10.00	0.12	4.65	
L0001299	0	0.72900E-06	563539.0	4183437.2	2.0	10.00	0.12	4.65	
L0001300	0	0.72900E-06	563539.2	4183437.2	2.0	10.00	0.12	4.65	

L0001301	0	0.72900E-06	563539.4	4183437.0	2.0	10.00	0.12	4.65
L0001302	0	0.72900E-06	563539.6	4183437.0	2.0	10.00	0.12	4.65
L0001303	0	0.72900E-06	563539.9	4183436.8	2.0	10.00	0.12	4.65
L0001304	0	0.72900E-06	563540.1	4183436.8	2.0	10.00	0.12	4.65
L0001305	0	0.72900E-06	563540.3	4183436.5	2.0	10.00	0.12	4.65
L0001306	0	0.72900E-06	563540.6	4183436.5	2.0	10.00	0.12	4.65
L0001307	0	0.72900E-06	563540.8	4183436.5	2.0	10.00	0.12	4.65
L0001308	0	0.72900E-06	563541.0	4183436.2	2.0	10.00	0.12	4.65
L0001309	0	0.72900E-06	563541.2	4183436.2	2.1	10.00	0.12	4.65
L0001310	0	0.72900E-06	563541.4	4183436.0	2.1	10.00	0.12	4.65
L0001311	0	0.72900E-06	563541.7	4183436.0	2.1	10.00	0.12	4.65
L0001312	0	0.72900E-06	563541.9	4183435.8	2.1	10.00	0.12	4.65
L0001313	0	0.72900E-06	563542.1	4183435.8	2.1	10.00	0.12	4.65
L0001314	0	0.72900E-06	563542.3	4183435.5	2.1	10.00	0.12	4.65
L0001315	0	0.72900E-06	563542.6	4183435.5	2.1	10.00	0.12	4.65
L0001316	0	0.72900E-06	563542.8	4183435.2	2.1	10.00	0.12	4.65
L0001317	0	0.72900E-06	563543.0	4183435.2	2.2	10.00	0.12	4.65
L0001318	0	0.72900E-06	563543.2	4183435.2	2.2	10.00	0.12	4.65
L0001319	0	0.72900E-06	563543.4	4183435.0	2.2	10.00	0.12	4.65
L0001320	0	0.72900E-06	563543.7	4183435.0	2.2	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001321	0	0.72900E-06	563543.9	4183434.8	2.2	10.00	0.12	4.65	
L0001322	0	0.72900E-06	563544.1	4183434.8	2.6	10.00	0.12	4.65	
L0001323	0	0.72900E-06	563544.3	4183434.5	2.7	10.00	0.12	4.65	
L0001324	0	0.72900E-06	563544.6	4183434.5	2.7	10.00	0.12	4.65	
L0001325	0	0.72900E-06	563544.8	4183434.3	2.7	10.00	0.12	4.65	
L0001326	0	0.72900E-06	563545.0	4183434.3	2.8	10.00	0.12	4.65	
L0001327	0	0.72900E-06	563545.3	4183434.3	2.8	10.00	0.12	4.65	
L0001328	0	0.72900E-06	563545.4	4183434.0	2.8	10.00	0.12	4.65	
L0001329	0	0.72900E-06	563545.7	4183434.0	2.8	10.00	0.12	4.65	
L0001330	0	0.72900E-06	563545.9	4183433.8	2.9	10.00	0.12	4.65	
L0001331	0	0.72900E-06	563546.1	4183433.8	2.9	10.00	0.12	4.65	
L0001332	0	0.72900E-06	563546.3	4183433.5	2.9	10.00	0.12	4.65	
L0001333	0	0.72900E-06	563546.6	4183433.5	3.0	10.00	0.12	4.65	
L0001334	0	0.72900E-06	563546.8	4183433.2	3.0	10.00	0.12	4.65	
L0001335	0	0.72900E-06	563547.0	4183433.2	3.0	10.00	0.12	4.65	
L0001336	0	0.72900E-06	563547.2	4183433.0	3.1	10.00	0.12	4.65	
L0001337	0	0.72900E-06	563547.4	4183433.0	3.1	10.00	0.12	4.65	
L0001338	0	0.72900E-06	563547.7	4183433.0	3.1	10.00	0.12	4.65	
L0001339	0	0.72900E-06	563547.9	4183432.8	3.1	10.00	0.12	4.65	
L0001340	0	0.72900E-06	563548.1	4183432.8	3.2	10.00	0.12	4.65	

L0001341	0	0.72900E-06	563548.4	4183432.5	3.2	10.00	0.12	4.65
L0001342	0	0.72900E-06	563548.6	4183432.5	3.2	10.00	0.12	4.65
L0001343	0	0.72900E-06	563548.8	4183432.2	3.2	10.00	0.12	4.65
L0001344	0	0.72900E-06	563549.0	4183432.2	3.3	10.00	0.12	4.65
L0001345	0	0.72900E-06	563549.3	4183432.0	3.3	10.00	0.12	4.65
L0001346	0	0.72900E-06	563549.4	4183432.0	3.3	10.00	0.12	4.65
L0001347	0	0.72900E-06	563549.7	4183431.8	3.3	10.00	0.12	4.65
L0001348	0	0.72900E-06	563549.9	4183431.8	3.4	10.00	0.12	4.65
L0001349	0	0.72900E-06	563550.1	4183431.8	3.4	10.00	0.12	4.65
L0001350	0	0.72900E-06	563550.4	4183431.5	3.4	10.00	0.12	4.65
L0001351	0	0.72900E-06	563550.6	4183431.5	3.4	10.00	0.12	4.65
L0001352	0	0.72900E-06	563550.8	4183431.2	3.4	10.00	0.12	4.65
L0001353	0	0.72900E-06	563551.0	4183431.2	3.5	10.00	0.12	4.65
L0001354	0	0.72900E-06	563551.2	4183431.0	3.5	10.00	0.12	4.65
L0001355	0	0.72900E-06	563551.5	4183431.0	3.5	10.00	0.12	4.65
L0001356	0	0.72900E-06	563551.7	4183430.8	3.5	10.00	0.12	4.65
L0001357	0	0.72900E-06	563551.9	4183430.8	3.5	10.00	0.12	4.65
L0001358	0	0.72900E-06	563552.1	4183430.5	3.5	10.00	0.12	4.65
L0001359	0	0.72900E-06	563552.4	4183430.5	3.5	10.00	0.12	4.65
L0001360	0	0.72900E-06	563552.6	4183430.5	3.6	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001361	0	0.72900E-06	563552.8	4183430.2	3.6	10.00	0.12	4.65	
L0001362	0	0.72900E-06	563553.0	4183430.2	3.6	10.00	0.12	4.65	
L0001363	0	0.72900E-06	563553.2	4183430.0	3.6	10.00	0.12	4.65	
L0001364	0	0.72900E-06	563553.5	4183430.0	3.6	10.00	0.12	4.65	
L0001365	0	0.72900E-06	563553.7	4183429.8	3.6	10.00	0.12	4.65	
L0001366	0	0.72900E-06	563553.9	4183429.8	3.6	10.00	0.12	4.65	
L0001367	0	0.72900E-06	563554.1	4183429.5	3.6	10.00	0.12	4.65	
L0001368	0	0.72900E-06	563554.4	4183429.5	3.7	10.00	0.12	4.65	
L0001369	0	0.72900E-06	563554.6	4183429.5	3.7	10.00	0.12	4.65	
L0001370	0	0.72900E-06	563554.8	4183429.2	3.7	10.00	0.12	4.65	
L0001371	0	0.72900E-06	563555.1	4183429.2	3.7	10.00	0.12	4.65	
L0001372	0	0.72900E-06	563555.3	4183429.0	3.7	10.00	0.12	4.65	
L0001373	0	0.72900E-06	563555.5	4183429.0	3.7	10.00	0.12	4.65	
L0001374	0	0.72900E-06	563555.7	4183428.8	3.7	10.00	0.12	4.65	
L0001375	0	0.72900E-06	563555.9	4183428.8	3.7	10.00	0.12	4.65	
L0001376	0	0.72900E-06	563556.1	4183428.5	3.7	10.00	0.12	4.65	
L0001377	0	0.72900E-06	563556.4	4183428.5	3.7	10.00	0.12	4.65	
L0001378	0	0.72900E-06	563556.6	4183428.3	3.7	10.00	0.12	4.65	
L0001379	0	0.72900E-06	563556.8	4183428.3	3.7	10.00	0.12	4.65	
L0001380	0	0.72900E-06	563557.1	4183428.3	3.7	10.00	0.12	4.65	

L0001381	0	0.72900E-06	563557.2	4183428.0	3.7	10.00	0.12	4.65
L0001382	0	0.72900E-06	563557.5	4183428.0	3.7	10.00	0.12	4.65
L0001383	0	0.72900E-06	563557.7	4183427.8	3.7	10.00	0.12	4.65
L0001384	0	0.72900E-06	563557.9	4183427.8	3.7	10.00	0.12	4.65
L0001385	0	0.72900E-06	563558.2	4183427.5	3.7	10.00	0.12	4.65
L0001386	0	0.72900E-06	563558.4	4183427.5	3.7	10.00	0.12	4.65
L0001387	0	0.72900E-06	563558.6	4183427.3	3.7	10.00	0.12	4.65
L0001388	0	0.72900E-06	563558.8	4183427.3	3.7	10.00	0.12	4.65
L0001389	0	0.72900E-06	563559.1	4183427.0	3.7	10.00	0.12	4.65
L0001390	0	0.72900E-06	563559.2	4183427.0	3.8	10.00	0.12	4.65
L0001391	0	0.72900E-06	563559.5	4183427.0	3.8	10.00	0.12	4.65
L0001392	0	0.72900E-06	563559.8	4183426.8	3.8	10.00	0.12	4.65
L0001393	0	0.72900E-06	563559.9	4183426.8	3.8	10.00	0.12	4.65
L0001394	0	0.72900E-06	563560.2	4183426.5	3.8	10.00	0.12	4.65
L0001395	0	0.72900E-06	563560.4	4183426.5	3.8	10.00	0.12	4.65
L0001396	0	0.72900E-06	563560.6	4183426.2	3.8	10.00	0.12	4.65
L0001397	0	0.72900E-06	563560.8	4183426.2	3.8	10.00	0.12	4.65
L0001398	0	0.72900E-06	563561.1	4183426.0	3.8	10.00	0.12	4.65
L0001399	0	0.72900E-06	563561.3	4183426.0	3.8	10.00	0.12	4.65
L0001400	0	0.72900E-06	563561.5	4183425.8	3.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0001401	0	0.72900E-06	563561.8	4183425.8	3.8	10.00	0.12	4.65	
L0001402	0	0.72900E-06	563561.9	4183425.8	3.8	10.00	0.12	4.65	
L0001403	0	0.72900E-06	563562.2	4183425.5	3.8	10.00	0.12	4.65	
L0001404	0	0.72900E-06	563562.4	4183425.5	3.8	10.00	0.12	4.65	
L0001405	0	0.72900E-06	563562.6	4183425.2	3.8	10.00	0.12	4.65	
L0001406	0	0.72900E-06	563562.8	4183425.2	3.8	10.00	0.12	4.65	
L0001407	0	0.72900E-06	563563.1	4183425.0	3.8	10.00	0.12	4.65	
L0001408	0	0.72900E-06	563563.3	4183425.0	3.8	10.00	0.12	4.65	
L0001409	0	0.72900E-06	563563.5	4183424.8	3.8	10.00	0.12	4.65	
L0001410	0	0.72900E-06	563563.8	4183424.8	3.8	10.00	0.12	4.65	
L0001411	0	0.72900E-06	563563.9	4183424.8	3.8	10.00	0.12	4.65	
L0001412	0	0.72900E-06	563564.2	4183424.5	3.8	10.00	0.12	4.65	
L0001413	0	0.72900E-06	563564.4	4183424.5	3.8	10.00	0.12	4.65	
L0001414	0	0.72900E-06	563564.6	4183424.2	3.8	10.00	0.12	4.65	
L0001415	0	0.72900E-06	563564.9	4183424.2	3.8	10.00	0.12	4.65	
L0001416	0	0.72900E-06	563565.1	4183424.0	3.8	10.00	0.12	4.65	
L0001417	0	0.72900E-06	563565.3	4183424.0	3.8	10.00	0.12	4.65	
L0001418	0	0.72900E-06	563565.5	4183423.8	3.8	10.00	0.12	4.65	
L0001419	0	0.72900E-06	563565.8	4183423.8	3.8	10.00	0.12	4.65	
L0001420	0	0.72900E-06	563565.9	4183423.5	3.8	10.00	0.12	4.65	

L0001421	0	0.72900E-06	563566.2	4183423.5	3.8	10.00	0.12	4.65
L0001422	0	0.72900E-06	563566.4	4183423.5	3.8	10.00	0.12	4.65
L0001423	0	0.72900E-06	563566.6	4183423.2	3.8	10.00	0.12	4.65
L0001424	0	0.72900E-06	563566.9	4183423.2	3.8	10.00	0.12	4.65
L0001425	0	0.72900E-06	563567.1	4183423.0	3.8	10.00	0.12	4.65
L0001426	0	0.72900E-06	563567.3	4183423.0	3.8	10.00	0.12	4.65
L0001427	0	0.72900E-06	563567.5	4183422.8	3.8	10.00	0.12	4.65
L0001428	0	0.72900E-06	563567.8	4183422.8	3.8	10.00	0.12	4.65
L0001429	0	0.72900E-06	563568.0	4183422.5	4.6	10.00	0.12	4.65
L0001430	0	0.72900E-06	563568.2	4183422.5	4.6	10.00	0.12	4.65
L0001431	0	0.72900E-06	563568.4	4183422.2	4.6	10.00	0.12	4.65
L0001432	0	0.72900E-06	563568.6	4183422.2	4.6	10.00	0.12	4.65
L0001433	0	0.72900E-06	563568.9	4183422.2	4.7	10.00	0.12	4.65
L0001434	0	0.72900E-06	563569.1	4183422.0	4.7	10.00	0.12	4.65
L0001435	0	0.72900E-06	563569.3	4183422.0	4.7	10.00	0.12	4.65
L0001436	0	0.72900E-06	563569.5	4183421.8	4.7	10.00	0.12	4.65
L0001437	0	0.72900E-06	563569.8	4183421.8	4.7	10.00	0.12	4.65
L0001438	0	0.72900E-06	563570.0	4183421.5	4.7	10.00	0.12	4.65
L0001439	0	0.72900E-06	563570.2	4183421.5	4.7	10.00	0.12	4.65
L0001440	0	0.72900E-06	563570.4	4183421.3	4.7	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001441	0	0.72900E-06	563570.6	4183421.3	4.7	10.00	0.12	4.65	
L0001442	0	0.72900E-06	563570.9	4183421.3	4.7	10.00	0.12	4.65	
L0001443	0	0.72900E-06	563571.1	4183421.0	4.7	10.00	0.12	4.65	
L0001444	0	0.72900E-06	563571.3	4183421.0	4.7	10.00	0.12	4.65	
L0001445	0	0.72900E-06	563571.6	4183420.8	4.7	10.00	0.12	4.65	
L0001446	0	0.72900E-06	563571.8	4183420.8	4.7	10.00	0.12	4.65	
L0001447	0	0.72900E-06	563572.0	4183420.5	4.7	10.00	0.12	4.65	
L0001448	0	0.72900E-06	563572.2	4183420.5	4.7	10.00	0.12	4.65	
L0001449	0	0.72900E-06	563572.4	4183420.3	4.7	10.00	0.12	4.65	
L0001450	0	0.72900E-06	563572.6	4183420.3	4.7	10.00	0.12	4.65	
L0001451	0	0.72900E-06	563572.9	4183420.0	4.6	10.00	0.12	4.65	
L0001452	0	0.72900E-06	563573.1	4183420.0	4.7	10.00	0.12	4.65	
L0001453	0	0.72900E-06	563573.3	4183420.0	4.7	10.00	0.12	4.65	
L0001454	0	0.72900E-06	563573.6	4183419.8	4.6	10.00	0.12	4.65	
L0001455	0	0.72900E-06	563573.8	4183419.8	4.6	10.00	0.12	4.65	
L0001456	0	0.72900E-06	563574.0	4183419.5	4.6	10.00	0.12	4.65	
L0001457	0	0.72900E-06	563574.2	4183419.5	4.6	10.00	0.12	4.65	
L0001458	0	0.72900E-06	563574.4	4183419.2	4.6	10.00	0.12	4.65	
L0001459	0	0.72900E-06	563574.7	4183419.2	4.6	10.00	0.12	4.65	
L0001460	0	0.72900E-06	563574.9	4183419.0	4.6	10.00	0.12	4.65	

L0001461	0	0.72900E-06	563575.1	4183419.0	4.6	10.00	0.12	4.65
L0001462	0	0.72900E-06	563575.3	4183418.8	4.6	10.00	0.12	4.65
L0001463	0	0.72900E-06	563575.6	4183418.8	4.6	10.00	0.12	4.65
L0001464	0	0.72900E-06	563575.8	4183418.8	4.6	10.00	0.12	4.65
L0001465	0	0.72900E-06	563576.0	4183418.5	4.6	10.00	0.12	4.65
L0001466	0	0.72900E-06	563576.2	4183418.5	4.6	10.00	0.12	4.65
L0001467	0	0.72900E-06	563576.4	4183418.2	4.5	10.00	0.12	4.65
L0001468	0	0.72900E-06	563576.7	4183418.2	4.5	10.00	0.12	4.65
L0001469	0	0.72900E-06	563576.9	4183418.0	4.5	10.00	0.12	4.65
L0001470	0	0.72900E-06	563577.1	4183418.0	4.5	10.00	0.12	4.65
L0001471	0	0.72900E-06	563577.3	4183417.8	4.5	10.00	0.12	4.65
L0001472	0	0.72900E-06	563577.6	4183417.8	4.5	10.00	0.12	4.65
L0001473	0	0.72900E-06	563577.8	4183417.5	4.5	10.00	0.12	4.65
L0001474	0	0.72900E-06	563578.0	4183417.5	4.5	10.00	0.12	4.65
L0001475	0	0.72900E-06	563578.2	4183417.5	4.5	10.00	0.12	4.65
L0001476	0	0.72900E-06	563578.4	4183417.2	4.4	10.00	0.12	4.65
L0001477	0	0.72900E-06	563578.7	4183417.2	4.4	10.00	0.12	4.65
L0001478	0	0.72900E-06	563578.9	4183417.0	4.4	10.00	0.12	4.65
L0001479	0	0.72900E-06	563579.1	4183417.0	4.4	10.00	0.12	4.65
L0001480	0	0.72900E-06	563579.3	4183416.8	4.4	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001481	0	0.72900E-06	563579.6	4183416.8	4.4	10.00	0.12	4.65	
L0001482	0	0.72900E-06	563579.8	4183416.5	4.4	10.00	0.12	4.65	
L0001483	0	0.72900E-06	563580.0	4183416.5	4.4	10.00	0.12	4.65	
L0001484	0	0.72900E-06	563580.3	4183416.5	4.4	10.00	0.12	4.65	
L0001485	0	0.72900E-06	563580.4	4183416.2	4.3	10.00	0.12	4.65	
L0001486	0	0.72900E-06	563580.7	4183416.2	4.3	10.00	0.12	4.65	
L0001487	0	0.72900E-06	563580.9	4183416.0	4.3	10.00	0.12	4.65	
L0001488	0	0.72900E-06	563581.1	4183416.0	4.3	10.00	0.12	4.65	
L0001489	0	0.72900E-06	563581.4	4183415.8	3.9	10.00	0.12	4.65	
L0001490	0	0.72900E-06	563581.6	4183415.8	3.9	10.00	0.12	4.65	
L0001491	0	0.72900E-06	563581.8	4183415.5	3.9	10.00	0.12	4.65	
L0001492	0	0.72900E-06	563582.0	4183415.5	3.9	10.00	0.12	4.65	
L0001493	0	0.72900E-06	563582.2	4183415.3	3.9	10.00	0.12	4.65	
L0001494	0	0.72900E-06	563582.4	4183415.3	3.9	10.00	0.12	4.65	
L0001495	0	0.72900E-06	563582.7	4183415.3	3.9	10.00	0.12	4.65	
L0001496	0	0.72900E-06	563582.9	4183415.0	3.9	10.00	0.12	4.65	
L0001497	0	0.72900E-06	563583.1	4183415.0	3.9	10.00	0.12	4.65	
L0001498	0	0.72900E-06	563583.4	4183414.8	3.9	10.00	0.12	4.65	
L0001499	0	0.72900E-06	563583.6	4183414.8	3.9	10.00	0.12	4.65	
L0001500	0	0.72900E-06	563583.8	4183414.5	3.9	10.00	0.12	4.65	

L0001501	0	0.72900E-06	563584.0	4183414.5	3.9	10.00	0.12	4.65
L0001502	0	0.72900E-06	563584.2	4183414.2	4.0	10.00	0.12	4.65
L0001503	0	0.72900E-06	563584.5	4183414.2	4.0	10.00	0.12	4.65
L0001504	0	0.72900E-06	563584.7	4183414.0	4.0	10.00	0.12	4.65
L0001505	0	0.72900E-06	563584.9	4183414.0	4.0	10.00	0.12	4.65
L0001506	0	0.72900E-06	563585.1	4183414.0	4.0	10.00	0.12	4.65
L0001507	0	0.72900E-06	563585.4	4183413.8	4.0	10.00	0.12	4.65
L0001508	0	0.72900E-06	563585.6	4183413.8	4.0	10.00	0.12	4.65
L0001509	0	0.72900E-06	563585.8	4183413.5	4.0	10.00	0.12	4.65
L0001510	0	0.72900E-06	563586.1	4183413.5	4.0	10.00	0.12	4.65
L0001511	0	0.72900E-06	563586.2	4183413.2	4.0	10.00	0.12	4.65
L0001512	0	0.72900E-06	563586.5	4183413.2	4.0	10.00	0.12	4.65
L0001513	0	0.72900E-06	563586.7	4183413.0	4.0	10.00	0.12	4.65
L0001514	0	0.72900E-06	563586.9	4183413.0	4.0	10.00	0.12	4.65
L0001515	0	0.72900E-06	563587.1	4183412.8	4.0	10.00	0.12	4.65
L0001516	0	0.72900E-06	563587.4	4183412.8	4.0	10.00	0.12	4.65
L0001517	0	0.72900E-06	563587.6	4183412.8	4.0	10.00	0.12	4.65
L0001518	0	0.72900E-06	563587.8	4183412.5	4.0	10.00	0.12	4.65
L0001519	0	0.72900E-06	563588.1	4183412.5	4.0	10.00	0.12	4.65
L0001520	0	0.72900E-06	563588.2	4183412.2	4.0	10.00	0.12	4.65

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DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001521	0	0.72900E-06	563588.5	4183412.2	4.0	10.00	0.12	4.65	
L0001522	0	0.72900E-06	563588.7	4183412.0	4.0	10.00	0.12	4.65	
L0001523	0	0.72900E-06	563588.9	4183412.0	4.0	10.00	0.12	4.65	
L0001524	0	0.72900E-06	563589.1	4183411.8	4.0	10.00	0.12	4.65	
L0001525	0	0.72900E-06	563589.4	4183411.8	4.0	10.00	0.12	4.65	
L0001526	0	0.72900E-06	563589.6	4183411.8	4.0	10.00	0.12	4.65	
L0001527	0	0.72900E-06	563589.8	4183411.5	4.0	10.00	0.12	4.65	
L0001528	0	0.72900E-06	563590.1	4183411.5	4.0	10.00	0.12	4.65	
L0001529	0	0.72900E-06	563590.2	4183411.2	4.0	10.00	0.12	4.65	
L0001530	0	0.72900E-06	563590.5	4183411.2	4.0	10.00	0.12	4.65	
L0001531	0	0.72900E-06	563590.7	4183411.0	4.0	10.00	0.12	4.65	
L0001532	0	0.72900E-06	563590.9	4183411.0	4.0	10.00	0.12	4.65	
L0001533	0	0.72900E-06	563591.2	4183410.8	4.0	10.00	0.12	4.65	
L0001534	0	0.72900E-06	563591.4	4183410.8	4.0	10.00	0.12	4.65	
L0001535	0	0.72900E-06	563591.6	4183410.5	4.0	10.00	0.12	4.65	
L0001536	0	0.72900E-06	563591.8	4183410.5	4.0	10.00	0.12	4.65	
L0001537	0	0.72900E-06	563592.1	4183410.5	3.9	10.00	0.12	4.65	
L0001538	0	0.72900E-06	563592.2	4183410.2	3.9	10.00	0.12	4.65	
L0001539	0	0.72900E-06	563592.5	4183410.2	3.9	10.00	0.12	4.65	
L0001540	0	0.72900E-06	563592.8	4183410.0	3.9	10.00	0.12	4.65	

L0001541	0	0.72900E-06	563592.9	4183410.0	3.9	10.00	0.12	4.65
L0001542	0	0.72900E-06	563593.2	4183409.8	3.9	10.00	0.12	4.65
L0001543	0	0.72900E-06	563593.4	4183409.8	3.9	10.00	0.12	4.65
L0001544	0	0.72900E-06	563593.6	4183409.5	3.9	10.00	0.12	4.65
L0001545	0	0.72900E-06	563593.8	4183409.5	3.9	10.00	0.12	4.65
L0001546	0	0.72900E-06	563594.1	4183409.2	3.9	10.00	0.12	4.65
L0001547	0	0.72900E-06	563594.3	4183409.2	3.9	10.00	0.12	4.65
L0001548	0	0.72900E-06	563594.5	4183409.2	3.9	10.00	0.12	4.65
L0001549	0	0.72900E-06	563594.8	4183409.0	3.9	10.00	0.12	4.65
L0001550	0	0.72900E-06	563594.9	4183409.0	3.9	10.00	0.12	4.65
L0001551	0	0.72900E-06	563595.2	4183408.8	3.9	10.00	0.12	4.65
L0001552	0	0.72900E-06	563595.4	4183408.8	3.9	10.00	0.12	4.65
L0001553	0	0.72900E-06	563595.6	4183408.5	3.9	10.00	0.12	4.65
L0001554	0	0.72900E-06	563595.8	4183408.5	3.9	10.00	0.12	4.65
L0001555	0	0.72900E-06	563596.1	4183408.3	3.9	10.00	0.12	4.65
L0001556	0	0.72900E-06	563596.3	4183408.3	3.9	10.00	0.12	4.65
L0001557	0	0.72900E-06	563596.5	4183408.3	3.9	10.00	0.12	4.65
L0001558	0	0.72900E-06	563596.8	4183408.0	3.9	10.00	0.12	4.65
L0001559	0	0.72900E-06	563596.9	4183408.0	3.9	10.00	0.12	4.65
L0001560	0	0.72900E-06	563597.2	4183407.8	3.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0001561	0	0.72900E-06	563597.4	4183407.8	3.9	10.00	0.12	4.65	
L0001562	0	0.72900E-06	563597.6	4183407.5	3.9	10.00	0.12	4.65	
L0001563	0	0.72900E-06	563597.9	4183407.5	3.9	10.00	0.12	4.65	
L0001564	0	0.72900E-06	563598.1	4183407.2	3.9	10.00	0.12	4.65	
L0001565	0	0.72900E-06	563598.3	4183407.2	3.9	10.00	0.12	4.65	
L0001566	0	0.72900E-06	563598.5	4183407.0	3.9	10.00	0.12	4.65	
L0001567	0	0.72900E-06	563598.8	4183407.0	3.9	10.00	0.12	4.65	
L0001568	0	0.72900E-06	563598.9	4183407.0	3.9	10.00	0.12	4.65	
L0001569	0	0.72900E-06	563599.2	4183406.8	3.9	10.00	0.12	4.65	
L0001570	0	0.72900E-06	563599.4	4183406.8	3.9	10.00	0.12	4.65	
L0001571	0	0.72900E-06	563599.6	4183406.5	3.9	10.00	0.12	4.65	
L0001572	0	0.72900E-06	563599.9	4183406.5	3.9	10.00	0.12	4.65	
L0001573	0	0.72900E-06	563600.1	4183406.2	3.9	10.00	0.12	4.65	
L0001574	0	0.72900E-06	563600.3	4183406.2	3.9	10.00	0.12	4.65	
L0001575	0	0.72900E-06	563600.5	4183406.0	3.9	10.00	0.12	4.65	
L0001576	0	0.72900E-06	563600.8	4183406.0	3.9	10.00	0.12	4.65	
L0001577	0	0.72900E-06	563601.0	4183405.8	3.9	10.00	0.12	4.65	
L0001578	0	0.72900E-06	563601.2	4183405.8	3.9	10.00	0.12	4.65	
L0001579	0	0.72900E-06	563601.4	4183405.8	3.9	10.00	0.12	4.65	
L0001580	0	0.72900E-06	563601.6	4183405.5	3.9	10.00	0.12	4.65	

L0001581	0	0.72900E-06	563601.9	4183405.5	3.9	10.00	0.12	4.65
L0001582	0	0.72900E-06	563602.1	4183405.2	3.9	10.00	0.12	4.65
L0001583	0	0.72900E-06	563602.3	4183405.2	3.9	10.00	0.12	4.65
L0001584	0	0.72900E-06	563602.6	4183405.0	3.9	10.00	0.12	4.65
L0001585	0	0.72900E-06	563602.8	4183405.0	3.9	10.00	0.12	4.65
L0001586	0	0.72900E-06	563603.0	4183404.8	3.9	10.00	0.12	4.65
L0001587	0	0.72900E-06	563603.2	4183404.8	3.9	10.00	0.12	4.65
L0001588	0	0.72900E-06	563603.4	4183404.5	3.9	10.00	0.12	4.65
L0001589	0	0.72900E-06	563603.6	4183404.5	3.9	10.00	0.12	4.65
L0001590	0	0.72900E-06	563603.9	4183404.5	3.9	10.00	0.12	4.65
L0001591	0	0.72900E-06	563604.1	4183404.2	3.9	10.00	0.12	4.65
L0001592	0	0.72900E-06	563604.3	4183404.2	3.9	10.00	0.12	4.65
L0001593	0	0.72900E-06	563604.6	4183404.0	3.9	10.00	0.12	4.65
L0001594	0	0.72900E-06	563604.8	4183404.0	3.9	10.00	0.12	4.65
L0001595	0	0.72900E-06	563605.0	4183403.8	3.9	10.00	0.12	4.65
L0001596	0	0.72900E-06	563605.2	4183403.8	3.9	10.00	0.12	4.65
L0001597	0	0.72900E-06	563605.4	4183403.5	3.9	10.00	0.12	4.65
L0001598	0	0.72900E-06	563605.6	4183403.5	3.9	10.00	0.12	4.65
L0001599	0	0.72900E-06	563605.9	4183403.5	3.9	10.00	0.12	4.65
L0001600	0	0.72900E-06	563606.1	4183403.2	3.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001601	0	0.72900E-06	563606.3	4183403.2	3.9	10.00	0.12	4.65	
L0001602	0	0.72900E-06	563606.6	4183403.0	3.9	10.00	0.12	4.65	
L0001603	0	0.72900E-06	563606.8	4183403.0	3.9	10.00	0.12	4.65	
L0001604	0	0.72900E-06	563607.0	4183402.8	3.9	10.00	0.12	4.65	
L0001605	0	0.72900E-06	563607.2	4183402.8	3.9	10.00	0.12	4.65	
L0001606	0	0.72900E-06	563607.4	4183402.5	3.9	10.00	0.12	4.65	
L0001607	0	0.72900E-06	563607.7	4183402.5	3.9	10.00	0.12	4.65	
L0001608	0	0.72900E-06	563607.9	4183402.3	3.9	10.00	0.12	4.65	
L0001609	0	0.72900E-06	563608.1	4183402.3	3.9	10.00	0.12	4.65	
L0001610	0	0.72900E-06	563608.3	4183402.3	3.9	10.00	0.12	4.65	
L0001611	0	0.72900E-06	563608.6	4183402.0	3.9	10.00	0.12	4.65	
L0001612	0	0.72900E-06	563608.8	4183402.0	3.9	10.00	0.12	4.65	
L0001613	0	0.72900E-06	563609.0	4183401.8	3.9	10.00	0.12	4.65	
L0001614	0	0.72900E-06	563609.2	4183401.8	3.9	10.00	0.12	4.65	
L0001615	0	0.72900E-06	563609.4	4183401.5	3.9	10.00	0.12	4.65	
L0001616	0	0.72900E-06	563609.7	4183401.5	3.9	10.00	0.12	4.65	
L0001617	0	0.72900E-06	563609.9	4183401.3	3.9	10.00	0.12	4.65	
L0001618	0	0.72900E-06	563610.1	4183401.3	3.9	10.00	0.12	4.65	
L0001619	0	0.72900E-06	563610.3	4183401.0	3.8	10.00	0.12	4.65	
L0001620	0	0.72900E-06	563610.6	4183401.0	3.8	10.00	0.12	4.65	

L0001621	0	0.72900E-06	563610.8	4183401.0	3.8	10.00	0.12	4.65
L0001622	0	0.72900E-06	563611.0	4183400.8	3.8	10.00	0.12	4.65
L0001623	0	0.72900E-06	563611.2	4183400.8	3.8	10.00	0.12	4.65
L0001624	0	0.72900E-06	563611.4	4183400.5	3.8	10.00	0.12	4.65
L0001625	0	0.72900E-06	563611.7	4183400.5	3.8	10.00	0.12	4.65
L0001626	0	0.72900E-06	563611.9	4183400.2	3.8	10.00	0.12	4.65
L0001627	0	0.72900E-06	563612.1	4183400.2	3.8	10.00	0.12	4.65
L0001628	0	0.72900E-06	563612.4	4183400.0	3.8	10.00	0.12	4.65
L0001629	0	0.72900E-06	563612.6	4183400.0	3.8	10.00	0.12	4.65
L0001630	0	0.72900E-06	563612.8	4183399.8	3.8	10.00	0.12	4.65
L0001631	0	0.72900E-06	563613.0	4183399.8	3.8	10.00	0.12	4.65
L0001632	0	0.72900E-06	563613.2	4183399.8	3.8	10.00	0.12	4.65
L0001633	0	0.72900E-06	563613.4	4183399.5	3.7	10.00	0.12	4.65
L0001634	0	0.72900E-06	563613.7	4183399.5	3.7	10.00	0.12	4.65
L0001635	0	0.72900E-06	563613.9	4183399.2	3.7	10.00	0.12	4.65
L0001636	0	0.72900E-06	563614.1	4183399.2	3.7	10.00	0.12	4.65
L0001637	0	0.72900E-06	563614.4	4183399.0	3.7	10.00	0.12	4.65
L0001638	0	0.72900E-06	563614.6	4183399.0	3.7	10.00	0.12	4.65
L0001639	0	0.72900E-06	563614.8	4183398.8	3.7	10.00	0.12	4.65
L0001640	0	0.72900E-06	563615.0	4183398.8	3.7	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001641	0	0.72900E-06	563615.3	4183398.8	3.7	10.00	0.12	4.65	
L0001642	0	0.72900E-06	563615.4	4183398.5	3.7	10.00	0.12	4.65	
L0001643	0	0.72900E-06	563615.7	4183398.5	3.7	10.00	0.12	4.65	
L0001644	0	0.72900E-06	563615.9	4183398.2	3.6	10.00	0.12	4.65	
L0001645	0	0.72900E-06	563616.1	4183398.2	3.5	10.00	0.12	4.65	
L0001646	0	0.72900E-06	563616.4	4183398.0	3.5	10.00	0.12	4.65	
L0001647	0	0.72900E-06	563616.6	4183398.0	3.5	10.00	0.12	4.65	
L0001648	0	0.72900E-06	563616.8	4183397.8	3.4	10.00	0.12	4.65	
L0001649	0	0.72900E-06	563617.0	4183397.8	3.4	10.00	0.12	4.65	
L0001650	0	0.72900E-06	563617.2	4183397.5	3.4	10.00	0.12	4.65	
L0001651	0	0.72900E-06	563617.5	4183397.5	3.4	10.00	0.12	4.65	
L0001652	0	0.72900E-06	563617.7	4183397.5	3.4	10.00	0.12	4.65	
L0001653	0	0.72900E-06	563617.9	4183397.2	3.4	10.00	0.12	4.65	
L0001654	0	0.72900E-06	563618.1	4183397.2	3.3	10.00	0.12	4.65	
L0001655	0	0.72900E-06	563618.4	4183397.0	3.3	10.00	0.12	4.65	
L0001656	0	0.72900E-06	563618.6	4183397.0	3.3	10.00	0.12	4.65	
L0001657	0	0.72900E-06	563618.8	4183396.8	3.3	10.00	0.12	4.65	
L0001658	0	0.72900E-06	563619.1	4183396.8	3.3	10.00	0.12	4.65	
L0001659	0	0.72900E-06	563619.3	4183396.5	3.3	10.00	0.12	4.65	
L0001660	0	0.72900E-06	563619.5	4183396.5	3.2	10.00	0.12	4.65	

L0001661	0	0.72900E-06	563619.7	4183396.3	3.2	10.00	0.12	4.65
L0001662	0	0.72900E-06	563619.9	4183396.3	3.2	10.00	0.12	4.65
L0001663	0	0.72900E-06	563620.1	4183396.3	3.2	10.00	0.12	4.65
L0001664	0	0.72900E-06	563620.4	4183396.0	3.2	10.00	0.12	4.65
L0001665	0	0.72900E-06	563620.6	4183396.0	3.2	10.00	0.12	4.65
L0001666	0	0.72900E-06	563620.8	4183395.8	3.2	10.00	0.12	4.65
L0001667	0	0.72900E-06	563621.1	4183395.8	3.2	10.00	0.12	4.65
L0001668	0	0.72900E-06	563621.2	4183395.5	3.1	10.00	0.12	4.65
L0001669	0	0.72900E-06	563621.5	4183395.5	3.1	10.00	0.12	4.65
L0001670	0	0.72900E-06	563621.7	4183395.2	3.1	10.00	0.12	4.65
L0001671	0	0.72900E-06	563621.9	4183395.2	3.1	10.00	0.12	4.65
L0001672	0	0.72900E-06	563622.1	4183395.2	3.1	10.00	0.12	4.65
L0001673	0	0.72900E-06	563622.4	4183395.0	3.1	10.00	0.12	4.65
L0001674	0	0.72900E-06	563622.6	4183395.0	3.0	10.00	0.12	4.65
L0001675	0	0.72900E-06	563622.8	4183394.8	3.0	10.00	0.12	4.65
L0001676	0	0.72900E-06	563623.1	4183394.8	3.0	10.00	0.12	4.65
L0001677	0	0.72900E-06	563623.2	4183394.5	3.0	10.00	0.12	4.65
L0001678	0	0.72900E-06	563623.5	4183394.5	3.0	10.00	0.12	4.65
L0001679	0	0.72900E-06	563623.7	4183394.2	3.0	10.00	0.12	4.65
L0001680	0	0.72900E-06	563623.9	4183394.2	3.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001681	0	0.72900E-06	563624.2	4183394.0	3.0	10.00	0.12	4.65	
L0001682	0	0.72900E-06	563624.4	4183394.0	3.0	10.00	0.12	4.65	
L0001683	0	0.72900E-06	563624.6	4183394.0	2.9	10.00	0.12	4.65	
L0001684	0	0.72900E-06	563624.8	4183393.8	2.9	10.00	0.12	4.65	
L0001685	0	0.72900E-06	563625.1	4183393.8	2.9	10.00	0.12	4.65	
L0001686	0	0.72900E-06	563625.3	4183393.5	2.9	10.00	0.12	4.65	
L0001687	0	0.72900E-06	563625.5	4183393.5	2.9	10.00	0.12	4.65	
L0001688	0	0.72900E-06	563625.8	4183393.2	2.9	10.00	0.12	4.65	
L0001689	0	0.72900E-06	563625.9	4183393.2	2.9	10.00	0.12	4.65	
L0001690	0	0.72900E-06	563626.2	4183393.0	2.8	10.00	0.12	4.65	
L0001691	0	0.72900E-06	563626.4	4183393.0	2.8	10.00	0.12	4.65	
L0001692	0	0.72900E-06	563626.6	4183392.8	2.8	10.00	0.12	4.65	
L0001693	0	0.72900E-06	563626.8	4183392.8	2.8	10.00	0.12	4.65	
L0001694	0	0.72900E-06	563627.1	4183392.8	2.8	10.00	0.12	4.65	
L0001695	0	0.72900E-06	563627.3	4183392.5	2.8	10.00	0.12	4.65	
L0001696	0	0.72900E-06	563627.5	4183392.5	2.8	10.00	0.12	4.65	
L0001697	0	0.72900E-06	563627.8	4183392.2	2.8	10.00	0.12	4.65	
L0001698	0	0.72900E-06	563627.9	4183392.2	2.8	10.00	0.12	4.65	
L0001699	0	0.72900E-06	563628.2	4183392.0	2.7	10.00	0.12	4.65	
L0001700	0	0.72900E-06	563628.4	4183392.0	2.7	10.00	0.12	4.65	

L0001701	0	0.72900E-06	563628.6	4183391.8	2.1	10.00	0.12	4.65
L0001702	0	0.72900E-06	563628.9	4183391.8	2.1	10.00	0.12	4.65
L0001703	0	0.72900E-06	563629.1	4183391.5	2.1	10.00	0.12	4.65
L0001704	0	0.72900E-06	563629.3	4183391.5	2.1	10.00	0.12	4.65
L0001705	0	0.72900E-06	563629.5	4183391.5	2.1	10.00	0.12	4.65
L0001706	0	0.72900E-06	563629.8	4183391.2	2.1	10.00	0.12	4.65
L0001707	0	0.72900E-06	563629.9	4183391.2	2.1	10.00	0.12	4.65
L0001708	0	0.72900E-06	563630.2	4183391.0	2.1	10.00	0.12	4.65
L0001709	0	0.72900E-06	563630.4	4183391.0	2.1	10.00	0.12	4.65
L0001710	0	0.72900E-06	563630.6	4183390.8	2.1	10.00	0.12	4.65
L0001711	0	0.72900E-06	563630.9	4183390.8	2.1	10.00	0.12	4.65
L0001712	0	0.72900E-06	563631.1	4183390.5	2.1	10.00	0.12	4.65
L0001713	0	0.72900E-06	563631.3	4183390.5	2.0	10.00	0.12	4.65
L0001714	0	0.72900E-06	563631.5	4183390.5	2.0	10.00	0.12	4.65
L0001715	0	0.72900E-06	563631.8	4183390.2	2.0	10.00	0.12	4.65
L0001716	0	0.72900E-06	563631.9	4183390.2	2.0	10.00	0.12	4.65
L0001717	0	0.72900E-06	563632.2	4183390.0	2.0	10.00	0.12	4.65
L0001718	0	0.72900E-06	563632.4	4183390.0	2.0	10.00	0.12	4.65
L0001719	0	0.72900E-06	563632.6	4183389.8	2.0	10.00	0.12	4.65
L0001720	0	0.72900E-06	563632.9	4183389.8	2.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001721	0	0.72900E-06	563633.1	4183389.5	2.0	10.00	0.12	4.65	
L0001722	0	0.72900E-06	563633.3	4183389.5	2.0	10.00	0.12	4.65	
L0001723	0	0.72900E-06	563633.5	4183389.3	2.0	10.00	0.12	4.65	
L0001724	0	0.72900E-06	563633.8	4183389.3	2.0	10.00	0.12	4.65	
L0001725	0	0.72900E-06	563634.0	4183389.3	2.0	10.00	0.12	4.65	
L0001726	0	0.72900E-06	563634.2	4183389.0	2.0	10.00	0.12	4.65	
L0001727	0	0.72900E-06	563634.4	4183389.0	2.0	10.00	0.12	4.65	
L0001728	0	0.72900E-06	563634.6	4183388.8	2.0	10.00	0.12	4.65	
L0001729	0	0.72900E-06	563634.9	4183388.8	2.0	10.00	0.12	4.65	
L0001730	0	0.72900E-06	563635.1	4183388.5	2.0	10.00	0.12	4.65	
L0001731	0	0.72900E-06	563635.3	4183388.5	2.0	10.00	0.12	4.65	
L0001732	0	0.72900E-06	563635.6	4183388.2	2.0	10.00	0.12	4.65	
L0001733	0	0.72900E-06	563635.8	4183388.2	2.0	10.00	0.12	4.65	
L0001734	0	0.72900E-06	563636.0	4183388.0	2.0	10.00	0.12	4.65	
L0001735	0	0.72900E-06	563636.2	4183388.0	2.0	10.00	0.12	4.65	
L0001736	0	0.72900E-06	563636.4	4183388.0	2.0	10.00	0.12	4.65	
L0001737	0	0.72900E-06	563636.6	4183387.8	2.0	10.00	0.12	4.65	
L0001738	0	0.72900E-06	563636.9	4183387.8	2.0	10.00	0.12	4.65	
L0001739	0	0.72900E-06	563637.1	4183387.5	2.0	10.00	0.12	4.65	
L0001740	0	0.72900E-06	563637.3	4183387.5	2.0	10.00	0.12	4.65	

L0001741	0	0.72900E-06	563637.6	4183387.2	1.9	10.00	0.12	4.65
L0001742	0	0.72900E-06	563637.8	4183387.2	1.9	10.00	0.12	4.65
L0001743	0	0.72900E-06	563638.0	4183387.0	1.9	10.00	0.12	4.65
L0001744	0	0.72900E-06	563638.2	4183387.0	1.9	10.00	0.12	4.65
L0001745	0	0.72900E-06	563638.4	4183386.8	1.9	10.00	0.12	4.65
L0001746	0	0.72900E-06	563638.6	4183386.8	1.9	10.00	0.12	4.65
L0001747	0	0.72900E-06	563638.9	4183386.8	1.9	10.00	0.12	4.65
L0001748	0	0.72900E-06	563639.1	4183386.5	1.9	10.00	0.12	4.65
L0001749	0	0.72900E-06	563639.3	4183386.5	1.9	10.00	0.12	4.65
L0001750	0	0.72900E-06	563639.6	4183386.2	1.9	10.00	0.12	4.65
L0001751	0	0.72900E-06	563639.8	4183386.2	1.9	10.00	0.12	4.65
L0001752	0	0.72900E-06	563640.0	4183386.0	1.8	10.00	0.12	4.65
L0001753	0	0.72900E-06	563640.2	4183386.0	1.8	10.00	0.12	4.65
L0001754	0	0.72900E-06	563640.4	4183385.8	1.8	10.00	0.12	4.65
L0001755	0	0.72900E-06	563640.7	4183385.8	1.8	10.00	0.12	4.65
L0001756	0	0.72900E-06	563640.9	4183385.8	1.8	10.00	0.12	4.65
L0001757	0	0.72900E-06	563641.1	4183385.5	1.8	10.00	0.12	4.65
L0001758	0	0.72900E-06	563641.3	4183385.5	1.8	10.00	0.12	4.65
L0001759	0	0.72900E-06	563641.6	4183385.2	1.8	10.00	0.12	4.65
L0001760	0	0.72900E-06	563641.8	4183385.2	1.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001761	0	0.72900E-06	563642.0	4183385.0	1.8	10.00	0.12	4.65	
L0001762	0	0.72900E-06	563642.2	4183385.0	1.8	10.00	0.12	4.65	
L0001763	0	0.72900E-06	563642.4	4183384.8	1.8	10.00	0.12	4.65	
L0001764	0	0.72900E-06	563642.7	4183384.8	1.7	10.00	0.12	4.65	
L0001765	0	0.72900E-06	563642.9	4183384.5	1.7	10.00	0.12	4.65	
L0001766	0	0.72900E-06	563643.1	4183384.5	1.7	10.00	0.12	4.65	
L0001767	0	0.72900E-06	563643.3	4183384.5	1.7	10.00	0.12	4.65	
L0001768	0	0.72900E-06	563643.6	4183384.2	1.7	10.00	0.12	4.65	
L0001769	0	0.72900E-06	563643.8	4183384.2	1.7	10.00	0.12	4.65	
L0001770	0	0.72900E-06	563644.0	4183384.0	1.7	10.00	0.12	4.65	
L0001771	0	0.72900E-06	563644.3	4183384.0	1.7	10.00	0.12	4.65	
L0001772	0	0.72900E-06	563644.4	4183383.8	1.7	10.00	0.12	4.65	
L0001773	0	0.72900E-06	563644.7	4183383.8	1.6	10.00	0.12	4.65	
L0001774	0	0.72900E-06	563644.9	4183383.5	1.6	10.00	0.12	4.65	
L0001775	0	0.72900E-06	563645.1	4183383.5	1.6	10.00	0.12	4.65	
L0001776	0	0.72900E-06	563645.4	4183383.3	1.6	10.00	0.12	4.65	
L0001777	0	0.72900E-06	563645.6	4183383.3	1.6	10.00	0.12	4.65	
L0001778	0	0.72900E-06	563645.8	4183383.3	1.6	10.00	0.12	4.65	
L0001779	0	0.72900E-06	563646.0	4183383.0	1.6	10.00	0.12	4.65	
L0001780	0	0.72900E-06	563646.2	4183383.0	1.6	10.00	0.12	4.65	

L0001781	0	0.72900E-06	563646.4	4183382.8	1.5	10.00	0.12	4.65
L0001782	0	0.72900E-06	563646.7	4183382.8	1.5	10.00	0.12	4.65
L0001783	0	0.72900E-06	563646.9	4183382.5	1.5	10.00	0.12	4.65
L0001784	0	0.72900E-06	563647.1	4183382.5	1.5	10.00	0.12	4.65
L0001785	0	0.72900E-06	563647.4	4183382.3	1.5	10.00	0.12	4.65
L0001786	0	0.72900E-06	563647.6	4183382.3	1.5	10.00	0.12	4.65
L0001787	0	0.72900E-06	563647.8	4183382.3	1.5	10.00	0.12	4.65
L0001788	0	0.72900E-06	563648.0	4183382.0	1.4	10.00	0.12	4.65
L0001789	0	0.72900E-06	563648.2	4183382.0	1.4	10.00	0.12	4.65
L0001790	0	0.72900E-06	563648.4	4183381.8	1.4	10.00	0.12	4.65
L0001791	0	0.72900E-06	563648.7	4183381.8	1.4	10.00	0.12	4.65
L0001792	0	0.72900E-06	563648.9	4183381.5	1.4	10.00	0.12	4.65
L0001793	0	0.72900E-06	563649.1	4183381.5	1.4	10.00	0.12	4.65
L0001794	0	0.72900E-06	563649.4	4183381.2	1.4	10.00	0.12	4.65
L0001795	0	0.72900E-06	563649.6	4183381.2	1.3	10.00	0.12	4.65
L0001796	0	0.72900E-06	563649.8	4183381.0	1.3	10.00	0.12	4.65
L0001797	0	0.72900E-06	563650.0	4183381.0	1.3	10.00	0.12	4.65
L0001798	0	0.72900E-06	563650.3	4183381.0	1.3	10.00	0.12	4.65
L0001799	0	0.72900E-06	563650.5	4183380.8	1.3	10.00	0.12	4.65
L0001800	0	0.72900E-06	563650.7	4183380.8	1.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0001801	0	0.72900E-06	563650.9	4183380.5	1.2	10.00	0.12	4.65	
L0001802	0	0.72900E-06	563651.1	4183380.5	1.2	10.00	0.12	4.65	
L0001803	0	0.72900E-06	563651.4	4183380.2	1.2	10.00	0.12	4.65	
L0001804	0	0.72900E-06	563651.6	4183380.2	1.2	10.00	0.12	4.65	
L0001805	0	0.72900E-06	563651.8	4183380.0	1.2	10.00	0.12	4.65	
L0001806	0	0.72900E-06	563652.1	4183380.0	1.2	10.00	0.12	4.65	
L0001807	0	0.72900E-06	563652.2	4183379.8	1.2	10.00	0.12	4.65	
L0001808	0	0.72900E-06	563652.5	4183379.8	1.2	10.00	0.12	4.65	
L0001809	0	0.72900E-06	563652.7	4183379.8	1.1	10.00	0.12	4.65	
L0001810	0	0.72900E-06	563652.9	4183379.5	1.1	10.00	0.12	4.65	
L0001811	0	0.72900E-06	563653.1	4183379.5	1.1	10.00	0.12	4.65	
L0001812	0	0.72900E-06	563653.4	4183379.2	1.1	10.00	0.12	4.65	
L0001813	0	0.72900E-06	563653.6	4183379.2	1.1	10.00	0.12	4.65	
L0001814	0	0.72900E-06	563653.8	4183379.0	1.1	10.00	0.12	4.65	
L0001815	0	0.72900E-06	563654.1	4183379.0	1.1	10.00	0.12	4.65	
L0001816	0	0.72900E-06	563654.2	4183378.8	1.1	10.00	0.12	4.65	
L0001817	0	0.72900E-06	563654.5	4183378.8	1.1	10.00	0.12	4.65	
L0001818	0	0.72900E-06	563654.7	4183378.5	1.1	10.00	0.12	4.65	
L0001819	0	0.72900E-06	563654.9	4183378.5	1.1	10.00	0.12	4.65	
L0001820	0	0.72900E-06	563655.2	4183378.5	1.0	10.00	0.12	4.65	

L0001821	0	0.72900E-06	563655.4	4183378.2	1.0	10.00	0.12	4.65
L0001822	0	0.72900E-06	563655.6	4183378.2	1.0	10.00	0.12	4.65
L0001823	0	0.72900E-06	563655.8	4183378.0	1.0	10.00	0.12	4.65
L0001824	0	0.72900E-06	563656.1	4183378.0	1.0	10.00	0.12	4.65
L0001825	0	0.72900E-06	563656.3	4183377.8	1.0	10.00	0.12	4.65
L0001826	0	0.72900E-06	563656.5	4183377.8	1.0	10.00	0.12	4.65
L0001827	0	0.72900E-06	563656.7	4183377.5	1.0	10.00	0.12	4.65
L0001828	0	0.72900E-06	563656.9	4183377.5	1.0	10.00	0.12	4.65
L0001829	0	0.72900E-06	563657.2	4183377.5	1.0	10.00	0.12	4.65
L0001830	0	0.72900E-06	563657.4	4183377.3	1.0	10.00	0.12	4.65
L0001831	0	0.72900E-06	563657.6	4183377.3	1.0	10.00	0.12	4.65
L0001832	0	0.72900E-06	563657.8	4183377.0	1.0	10.00	0.12	4.65
L0001833	0	0.72900E-06	563658.1	4183377.0	1.0	10.00	0.12	4.65
L0001834	0	0.72900E-06	563658.2	4183376.8	1.0	10.00	0.12	4.65
L0001835	0	0.72900E-06	563658.5	4183376.8	1.0	10.00	0.12	4.65
L0001836	0	0.72900E-06	563658.8	4183376.5	1.0	10.00	0.12	4.65
L0001837	0	0.72900E-06	563658.9	4183376.5	1.0	10.00	0.12	4.65
L0001838	0	0.72900E-06	563659.2	4183376.2	1.0	10.00	0.12	4.65
L0001839	0	0.72900E-06	563659.4	4183376.2	1.0	10.00	0.12	4.65
L0001840	0	0.72900E-06	563659.6	4183376.2	1.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001841	0	0.72900E-06	563659.8	4183376.0	1.0	10.00	0.12	4.65	
L0001842	0	0.72900E-06	563660.1	4183376.0	1.0	10.00	0.12	4.65	
L0001843	0	0.72900E-06	563660.3	4183375.8	1.0	10.00	0.12	4.65	
L0001844	0	0.72900E-06	563660.5	4183375.8	1.0	10.00	0.12	4.65	
L0001845	0	0.72900E-06	563660.8	4183375.5	1.0	10.00	0.12	4.65	
L0001846	0	0.72900E-06	563660.9	4183375.5	1.0	10.00	0.12	4.65	
L0001847	0	0.72900E-06	563661.2	4183375.2	1.1	10.00	0.12	4.65	
L0001848	0	0.72900E-06	563661.4	4183375.2	1.1	10.00	0.12	4.65	
L0001849	0	0.72900E-06	563661.6	4183375.0	1.1	10.00	0.12	4.65	
L0001850	0	0.72900E-06	563661.9	4183375.0	1.1	10.00	0.12	4.65	
L0001851	0	0.72900E-06	563662.1	4183375.0	1.1	10.00	0.12	4.65	
L0001852	0	0.72900E-06	563662.3	4183374.8	1.1	10.00	0.12	4.65	
L0001853	0	0.72900E-06	563662.5	4183374.8	1.1	10.00	0.12	4.65	
L0001854	0	0.72900E-06	563662.8	4183374.5	1.1	10.00	0.12	4.65	
L0001855	0	0.72900E-06	563662.9	4183374.5	1.1	10.00	0.12	4.65	
L0001856	0	0.72900E-06	563663.2	4183374.2	1.1	10.00	0.12	4.65	
L0001857	0	0.72900E-06	563663.4	4183374.2	1.2	10.00	0.12	4.65	
L0001858	0	0.72900E-06	563663.6	4183374.0	1.2	10.00	0.12	4.65	
L0001859	0	0.72900E-06	563663.9	4183374.0	1.2	10.00	0.12	4.65	
L0001860	0	0.72900E-06	563664.1	4183373.8	1.2	10.00	0.12	4.65	

L0001861	0	0.72900E-06	563664.3	4183373.8	1.2	10.00	0.12	4.65
L0001862	0	0.72900E-06	563664.5	4183373.8	1.2	10.00	0.12	4.65
L0001863	0	0.72900E-06	563664.8	4183373.5	1.3	10.00	0.12	4.65
L0001864	0	0.72900E-06	563664.9	4183373.5	1.3	10.00	0.12	4.65
L0001865	0	0.72900E-06	563665.2	4183373.2	1.3	10.00	0.12	4.65
L0001866	0	0.72900E-06	563665.4	4183373.2	1.3	10.00	0.12	4.65
L0001867	0	0.72900E-06	563665.6	4183373.0	1.4	10.00	0.12	4.65
L0001868	0	0.72900E-06	563665.9	4183373.0	1.4	10.00	0.12	4.65
L0001869	0	0.72900E-06	563666.1	4183372.8	1.4	10.00	0.12	4.65
L0001870	0	0.72900E-06	563666.3	4183372.8	1.4	10.00	0.12	4.65
L0001871	0	0.72900E-06	563666.5	4183372.8	1.4	10.00	0.12	4.65
L0001872	0	0.72900E-06	563666.8	4183372.5	1.4	10.00	0.12	4.65
L0001873	0	0.72900E-06	563667.0	4183372.5	1.5	10.00	0.12	4.65
L0001874	0	0.72900E-06	563667.2	4183372.2	1.5	10.00	0.12	4.65
L0001875	0	0.72900E-06	563667.4	4183372.2	1.5	10.00	0.12	4.65
L0001876	0	0.72900E-06	563667.6	4183372.0	1.5	10.00	0.12	4.65
L0001877	0	0.72900E-06	563667.9	4183372.0	1.5	10.00	0.12	4.65
L0001878	0	0.72900E-06	563668.1	4183371.8	1.6	10.00	0.12	4.65
L0001879	0	0.72900E-06	563668.3	4183371.8	1.6	10.00	0.12	4.65
L0001880	0	0.72900E-06	563668.6	4183371.5	1.6	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001881	0	0.72900E-06	563668.8	4183371.5	1.6	10.00	0.12	4.65	
L0001882	0	0.72900E-06	563669.0	4183371.5	1.6	10.00	0.12	4.65	
L0001883	0	0.72900E-06	563669.2	4183371.2	1.6	10.00	0.12	4.65	
L0001884	0	0.72900E-06	563669.4	4183371.2	1.7	10.00	0.12	4.65	
L0001885	0	0.72900E-06	563669.6	4183371.0	1.7	10.00	0.12	4.65	
L0001886	0	0.72900E-06	563669.9	4183371.0	1.7	10.00	0.12	4.65	
L0001887	0	0.72900E-06	563670.1	4183370.8	1.7	10.00	0.12	4.65	
L0001888	0	0.72900E-06	563670.3	4183370.8	1.7	10.00	0.12	4.65	
L0001889	0	0.72900E-06	563670.6	4183370.5	1.8	10.00	0.12	4.65	
L0001890	0	0.72900E-06	563670.8	4183370.5	1.8	10.00	0.12	4.65	
L0001891	0	0.72900E-06	563671.0	4183370.3	1.8	10.00	0.12	4.65	
L0001892	0	0.72900E-06	563671.2	4183370.3	1.8	10.00	0.12	4.65	
L0001893	0	0.72900E-06	563671.4	4183370.3	1.8	10.00	0.12	4.65	
L0001894	0	0.72900E-06	563671.7	4183370.0	1.8	10.00	0.12	4.65	
L0001895	0	0.72900E-06	563671.9	4183370.0	1.8	10.00	0.12	4.65	
L0001896	0	0.72900E-06	563672.1	4183369.8	1.9	10.00	0.12	4.65	
L0001897	0	0.72900E-06	563672.3	4183369.8	1.9	10.00	0.12	4.65	
L0001898	0	0.72900E-06	563672.6	4183369.5	1.9	10.00	0.12	4.65	
L0001899	0	0.72900E-06	563672.8	4183369.5	1.9	10.00	0.12	4.65	
L0001900	0	0.72900E-06	563673.0	4183369.2	1.9	10.00	0.12	4.65	

L0001901	0	0.72900E-06	563673.2	4183369.2	1.9	10.00	0.12	4.65
L0001902	0	0.72900E-06	563673.4	4183369.2	1.9	10.00	0.12	4.65
L0001903	0	0.72900E-06	563673.7	4183369.0	2.0	10.00	0.12	4.65
L0001904	0	0.72900E-06	563673.9	4183369.0	2.0	10.00	0.12	4.65
L0001905	0	0.72900E-06	563674.1	4183368.8	2.0	10.00	0.12	4.65
L0001906	0	0.72900E-06	563674.3	4183368.8	2.0	10.00	0.12	4.65
L0001907	0	0.72900E-06	563674.6	4183368.5	2.0	10.00	0.12	4.65
L0001908	0	0.72900E-06	563674.8	4183368.5	2.0	10.00	0.12	4.65
L0001909	0	0.72900E-06	563675.0	4183368.2	2.0	10.00	0.12	4.65
L0001910	0	0.72900E-06	563675.2	4183368.2	2.0	10.00	0.12	4.65
L0001911	0	0.72900E-06	563675.4	4183368.0	2.0	10.00	0.12	4.65
L0001912	0	0.72900E-06	563675.7	4183368.0	2.0	10.00	0.12	4.65
L0001913	0	0.72900E-06	563675.9	4183368.0	2.0	10.00	0.12	4.65
L0001914	0	0.72900E-06	563676.1	4183367.8	2.3	10.00	0.12	4.65
L0001915	0	0.72900E-06	563676.3	4183367.8	2.3	10.00	0.12	4.65
L0001916	0	0.72900E-06	563676.6	4183367.5	2.3	10.00	0.12	4.65
L0001917	0	0.72900E-06	563676.8	4183367.5	2.3	10.00	0.12	4.65
L0001918	0	0.72900E-06	563677.0	4183367.2	2.3	10.00	0.12	4.65
L0001919	0	0.72900E-06	563677.2	4183367.2	2.3	10.00	0.12	4.65
L0001920	0	0.72900E-06	563677.4	4183367.0	2.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001921	0	0.72900E-06	563677.7	4183367.0	2.3	10.00	0.12	4.65	
L0001922	0	0.72900E-06	563677.9	4183366.8	2.3	10.00	0.12	4.65	
L0001923	0	0.72900E-06	563678.1	4183366.8	2.3	10.00	0.12	4.65	
L0001924	0	0.72900E-06	563678.4	4183366.8	2.3	10.00	0.12	4.65	
L0001925	0	0.72900E-06	563678.6	4183366.5	2.3	10.00	0.12	4.65	
L0001926	0	0.72900E-06	563678.8	4183366.5	2.3	10.00	0.12	4.65	
L0001927	0	0.72900E-06	563679.0	4183366.2	2.3	10.00	0.12	4.65	
L0001928	0	0.72900E-06	563679.2	4183366.2	2.3	10.00	0.12	4.65	
L0001929	0	0.72900E-06	563679.4	4183366.0	2.3	10.00	0.12	4.65	
L0001930	0	0.72900E-06	563679.7	4183366.0	2.3	10.00	0.12	4.65	
L0001931	0	0.72900E-06	563679.9	4183365.8	2.3	10.00	0.12	4.65	
L0001932	0	0.72900E-06	563680.1	4183365.8	2.3	10.00	0.12	4.65	
L0001933	0	0.72900E-06	563680.4	4183365.5	2.4	10.00	0.12	4.65	
L0001934	0	0.72900E-06	563680.6	4183365.5	2.4	10.00	0.12	4.65	
L0001935	0	0.72900E-06	563680.8	4183365.5	2.4	10.00	0.12	4.65	
L0001936	0	0.72900E-06	563681.0	4183365.2	2.4	10.00	0.12	4.65	
L0001937	0	0.72900E-06	563681.2	4183365.2	2.4	10.00	0.12	4.65	
L0001938	0	0.72900E-06	563681.5	4183365.0	2.4	10.00	0.12	4.65	
L0001939	0	0.72900E-06	563681.7	4183365.0	2.4	10.00	0.12	4.65	
L0001940	0	0.72900E-06	563681.9	4183364.8	2.4	10.00	0.12	4.65	

L0001941	0	0.72900E-06	563682.1	4183364.8	2.4	10.00	0.12	4.65
L0001942	0	0.72900E-06	563682.4	4183364.5	2.4	10.00	0.12	4.65
L0001943	0	0.72900E-06	563682.6	4183364.5	2.4	10.00	0.12	4.65
L0001944	0	0.72900E-06	563682.8	4183364.5	2.4	10.00	0.12	4.65
L0001945	0	0.72900E-06	563683.0	4183364.3	2.4	10.00	0.12	4.65
L0001946	0	0.72900E-06	563683.2	4183364.3	2.4	10.00	0.12	4.65
L0001947	0	0.72900E-06	563683.5	4183364.0	2.4	10.00	0.12	4.65
L0001948	0	0.72900E-06	563683.7	4183364.0	2.5	10.00	0.12	4.65
L0001949	0	0.72900E-06	563683.9	4183363.8	2.5	10.00	0.12	4.65
L0001950	0	0.72900E-06	563684.1	4183363.8	2.5	10.00	0.12	4.65
L0001951	0	0.72900E-06	563684.4	4183363.5	2.5	10.00	0.12	4.65
L0001952	0	0.72900E-06	563684.6	4183363.5	2.5	10.00	0.12	4.65
L0001953	0	0.72900E-06	563684.8	4183363.3	2.5	10.00	0.12	4.65
L0001954	0	0.72900E-06	563685.1	4183363.3	2.5	10.00	0.12	4.65
L0001955	0	0.72900E-06	563685.3	4183363.3	2.5	10.00	0.12	4.65
L0001956	0	0.72900E-06	563685.5	4183363.0	2.5	10.00	0.12	4.65
L0001957	0	0.72900E-06	563685.7	4183363.0	2.5	10.00	0.12	4.65
L0001958	0	0.72900E-06	563685.9	4183362.8	2.5	10.00	0.12	4.65
L0001959	0	0.72900E-06	563686.1	4183362.8	2.5	10.00	0.12	4.65
L0001960	0	0.72900E-06	563686.4	4183362.5	2.5	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0001961	0	0.72900E-06	563686.6	4183362.5	2.5	10.00	0.12	4.65	
L0001962	0	0.72900E-06	563686.8	4183362.2	2.6	10.00	0.12	4.65	
L0001963	0	0.72900E-06	563687.1	4183362.2	2.6	10.00	0.12	4.65	
L0001964	0	0.72900E-06	563687.2	4183362.0	2.6	10.00	0.12	4.65	
L0001965	0	0.72900E-06	563687.5	4183362.0	2.6	10.00	0.12	4.65	
L0001966	0	0.72900E-06	563687.7	4183362.0	2.6	10.00	0.12	4.65	
L0001967	0	0.72900E-06	563687.9	4183361.8	2.6	10.00	0.12	4.65	
L0001968	0	0.72900E-06	563688.2	4183361.8	3.0	10.00	0.12	4.65	
L0001969	0	0.72900E-06	563688.4	4183361.5	3.0	10.00	0.12	4.65	
L0001970	0	0.72900E-06	563688.6	4183361.5	3.0	10.00	0.12	4.65	
L0001971	0	0.72900E-06	563688.8	4183361.2	3.0	10.00	0.12	4.65	
L0001972	0	0.72900E-06	563689.1	4183361.2	3.0	10.00	0.12	4.65	
L0001973	0	0.72900E-06	563689.2	4183361.0	3.0	10.00	0.12	4.65	
L0001974	0	0.72900E-06	563689.5	4183361.0	3.0	10.00	0.12	4.65	
L0001975	0	0.72900E-06	563689.8	4183361.0	3.0	10.00	0.12	4.65	
L0001976	0	0.72900E-06	563689.9	4183360.8	3.0	10.00	0.12	4.65	
L0001977	0	0.72900E-06	563690.2	4183360.8	3.0	10.00	0.12	4.65	
L0001978	0	0.72900E-06	563690.4	4183360.5	3.0	10.00	0.12	4.65	
L0001979	0	0.72900E-06	563690.6	4183360.5	3.0	10.00	0.12	4.65	
L0001980	0	0.72900E-06	563690.8	4183360.2	3.0	10.00	0.12	4.65	

L0001981	0	0.72900E-06	563691.1	4183360.2	3.0	10.00	0.12	4.65
L0001982	0	0.72900E-06	563691.3	4183360.0	3.0	10.00	0.12	4.65
L0001983	0	0.72900E-06	563691.5	4183360.0	3.0	10.00	0.12	4.65
L0001984	0	0.72900E-06	563691.8	4183359.8	3.0	10.00	0.12	4.65
L0001985	0	0.72900E-06	563691.9	4183359.8	3.0	10.00	0.12	4.65
L0001986	0	0.72900E-06	563692.2	4183359.8	3.0	10.00	0.12	4.65
L0001987	0	0.72900E-06	563692.4	4183359.5	3.0	10.00	0.12	4.65
L0001988	0	0.72900E-06	563692.6	4183359.5	3.0	10.00	0.12	4.65
L0001989	0	0.72900E-06	563692.8	4183359.2	3.0	10.00	0.12	4.65
L0001990	0	0.72900E-06	563693.1	4183359.2	3.0	10.00	0.12	4.65
L0001991	0	0.72900E-06	563693.3	4183359.0	3.0	10.00	0.12	4.65
L0001992	0	0.72900E-06	563693.5	4183359.0	3.0	10.00	0.12	4.65
L0001993	0	0.72900E-06	563693.8	4183358.8	3.0	10.00	0.12	4.65
L0001994	0	0.72900E-06	563693.9	4183358.8	3.0	10.00	0.12	4.65
L0001995	0	0.72900E-06	563694.2	4183358.5	3.0	10.00	0.12	4.65
L0001996	0	0.72900E-06	563694.4	4183358.5	3.0	10.00	0.12	4.65
L0001997	0	0.72900E-06	563694.6	4183358.5	3.0	10.00	0.12	4.65
L0001998	0	0.72900E-06	563694.9	4183358.3	3.0	10.00	0.12	4.65
L0001999	0	0.72900E-06	563695.1	4183358.3	3.0	10.00	0.12	4.65
L0002000	0	0.72900E-06	563695.3	4183358.0	3.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002001	0	0.72900E-06	563695.5	4183358.0	3.0	10.00	0.12	4.65	
L0002002	0	0.72900E-06	563695.8	4183357.8	3.0	10.00	0.12	4.65	
L0002003	0	0.72900E-06	563695.9	4183357.8	3.0	10.00	0.12	4.65	
L0002004	0	0.72900E-06	563696.2	4183357.5	3.0	10.00	0.12	4.65	
L0002005	0	0.72900E-06	563696.4	4183357.5	3.0	10.00	0.12	4.65	
L0002006	0	0.72900E-06	563696.6	4183357.2	3.0	10.00	0.12	4.65	
L0002007	0	0.72900E-06	563696.9	4183357.2	3.0	10.00	0.12	4.65	
L0002008	0	0.72900E-06	563697.1	4183357.2	3.0	10.00	0.12	4.65	
L0002009	0	0.72900E-06	563697.3	4183357.0	3.0	10.00	0.12	4.65	
L0002010	0	0.72900E-06	563697.5	4183357.0	3.0	10.00	0.12	4.65	
L0002011	0	0.72900E-06	563697.8	4183356.8	3.0	10.00	0.12	4.65	
L0002012	0	0.72900E-06	563698.0	4183356.8	3.0	10.00	0.12	4.65	
L0002013	0	0.72900E-06	563698.2	4183356.5	3.0	10.00	0.12	4.65	
L0002014	0	0.72900E-06	563698.4	4183356.5	3.0	10.00	0.12	4.65	
L0002015	0	0.72900E-06	563698.6	4183356.2	3.0	10.00	0.12	4.65	
L0002016	0	0.72900E-06	563698.9	4183356.2	3.0	10.00	0.12	4.65	
L0002017	0	0.72900E-06	563699.1	4183356.2	3.0	10.00	0.12	4.65	
L0002018	0	0.72900E-06	563699.3	4183356.0	3.0	10.00	0.12	4.65	
L0002019	0	0.72900E-06	563699.5	4183356.0	3.0	10.00	0.12	4.65	
L0002020	0	0.72900E-06	563699.8	4183355.8	3.0	10.00	0.12	4.65	

L0002021	0	0.72900E-06	563700.0	4183355.8	3.0	10.00	0.12	4.65
L0002022	0	0.72900E-06	563700.2	4183355.5	3.0	10.00	0.12	4.65
L0002023	0	0.72900E-06	563700.4	4183355.5	3.0	10.00	0.12	4.65
L0002024	0	0.72900E-06	563700.6	4183355.2	3.0	10.00	0.12	4.65
L0002025	0	0.72900E-06	563700.9	4183355.2	3.0	10.00	0.12	4.65
L0002026	0	0.72900E-06	563701.1	4183355.0	3.0	10.00	0.12	4.65
L0002027	0	0.72900E-06	563701.3	4183355.0	3.0	10.00	0.12	4.65
L0002028	0	0.72900E-06	563701.6	4183355.0	3.0	10.00	0.12	4.65
L0002029	0	0.72900E-06	563701.8	4183354.8	3.0	10.00	0.12	4.65
L0002030	0	0.72900E-06	563702.0	4183354.8	3.0	10.00	0.12	4.65
L0002031	0	0.72900E-06	563702.2	4183354.5	3.0	10.00	0.12	4.65
L0002032	0	0.72900E-06	563702.4	4183354.5	3.0	10.00	0.12	4.65
L0002033	0	0.72900E-06	563702.6	4183354.2	3.0	10.00	0.12	4.65
L0002034	0	0.72900E-06	563702.9	4183354.2	3.0	10.00	0.12	4.65
L0002035	0	0.72900E-06	563703.1	4183354.0	3.0	10.00	0.12	4.65
L0002036	0	0.72900E-06	563703.3	4183354.0	3.0	10.00	0.12	4.65
L0002037	0	0.72900E-06	563703.6	4183353.8	3.0	10.00	0.12	4.65
L0002038	0	0.72900E-06	563703.8	4183353.8	3.0	10.00	0.12	4.65
L0002039	0	0.72900E-06	563704.0	4183353.8	3.0	10.00	0.12	4.65
L0002040	0	0.72900E-06	563704.2	4183353.5	3.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002041	0	0.72900E-06	563704.4	4183353.5	3.0	10.00	0.12	4.65	
L0002042	0	0.72900E-06	563704.7	4183353.2	3.0	10.00	0.12	4.65	
L0002043	0	0.72900E-06	563704.9	4183353.2	3.0	10.00	0.12	4.65	
L0002044	0	0.72900E-06	563705.1	4183353.0	3.0	10.00	0.12	4.65	
L0002045	0	0.72900E-06	563705.3	4183353.0	3.0	10.00	0.12	4.65	
L0002046	0	0.72900E-06	563705.6	4183352.8	3.0	10.00	0.12	4.65	
L0002047	0	0.72900E-06	563705.8	4183352.8	3.0	10.00	0.12	4.65	
L0002048	0	0.72900E-06	563706.0	4183352.5	3.0	10.00	0.12	4.65	
L0002049	0	0.72900E-06	563706.2	4183352.5	3.0	10.00	0.12	4.65	
L0002050	0	0.72900E-06	563706.4	4183352.5	3.0	10.00	0.12	4.65	
L0002051	0	0.72900E-06	563706.7	4183352.2	3.0	10.00	0.12	4.65	
L0002052	0	0.72900E-06	563706.9	4183352.2	3.0	10.00	0.12	4.65	
L0002053	0	0.72900E-06	563707.1	4183352.0	3.0	10.00	0.12	4.65	
L0002054	0	0.72900E-06	563707.3	4183352.0	3.0	10.00	0.12	4.65	
L0002055	0	0.72900E-06	563707.6	4183351.8	3.0	10.00	0.12	4.65	
L0002056	0	0.72900E-06	563707.8	4183351.8	3.0	10.00	0.12	4.65	
L0002057	0	0.72900E-06	563708.0	4183351.5	3.0	10.00	0.12	4.65	
L0002058	0	0.72900E-06	563708.3	4183351.5	3.0	10.00	0.12	4.65	
L0002059	0	0.72900E-06	563708.4	4183351.5	3.0	10.00	0.12	4.65	
L0002060	0	0.72900E-06	563708.7	4183351.3	3.0	10.00	0.12	4.65	

L0002061	0	0.72900E-06	563708.9	4183351.3	3.0	10.00	0.12	4.65
L0002062	0	0.72900E-06	563709.1	4183351.0	3.0	10.00	0.12	4.65
L0002063	0	0.72900E-06	563709.3	4183351.0	3.0	10.00	0.12	4.65
L0002064	0	0.72900E-06	563709.6	4183350.8	3.0	10.00	0.12	4.65
L0002065	0	0.72900E-06	563709.8	4183350.8	3.0	10.00	0.12	4.65
L0002066	0	0.72900E-06	563710.0	4183350.5	3.0	10.00	0.12	4.65
L0002067	0	0.72900E-06	563710.3	4183350.5	3.0	10.00	0.12	4.65
L0002068	0	0.72900E-06	563710.4	4183350.2	3.0	10.00	0.12	4.65
L0002069	0	0.72900E-06	563710.7	4183350.2	3.0	10.00	0.12	4.65
L0002070	0	0.72900E-06	563710.9	4183350.2	3.0	10.00	0.12	4.65
L0002071	0	0.72900E-06	563711.1	4183350.0	3.0	10.00	0.12	4.65
L0002072	0	0.72900E-06	563711.4	4183350.0	3.0	10.00	0.12	4.65
L0002073	0	0.72900E-06	563711.6	4183349.8	3.0	10.00	0.12	4.65
L0002074	0	0.72900E-06	563711.8	4183349.8	3.0	10.00	0.12	4.65
L0002075	0	0.72900E-06	563712.0	4183349.5	3.0	10.00	0.12	4.65
L0002076	0	0.72900E-06	563712.2	4183349.5	3.0	10.00	0.12	4.65
L0002077	0	0.72900E-06	563712.4	4183349.2	3.0	10.00	0.12	4.65
L0002078	0	0.72900E-06	563712.7	4183349.2	3.0	10.00	0.12	4.65
L0002079	0	0.72900E-06	563712.9	4183349.0	3.0	10.00	0.12	4.65
L0002080	0	0.72900E-06	563713.1	4183349.0	3.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002081	0	0.72900E-06	563713.4	4183349.0	3.0	10.00	0.12	4.65	
L0002082	0	0.72900E-06	563713.6	4183348.8	3.0	10.00	0.12	4.65	
L0002083	0	0.72900E-06	563713.8	4183348.8	3.0	10.00	0.12	4.65	
L0002084	0	0.72900E-06	563714.0	4183348.5	3.0	10.00	0.12	4.65	
L0002085	0	0.72900E-06	563714.3	4183348.5	3.0	10.00	0.12	4.65	
L0002086	0	0.72900E-06	563714.5	4183348.2	3.0	10.00	0.12	4.65	
L0002087	0	0.72900E-06	563714.7	4183348.2	3.0	10.00	0.12	4.65	
L0002088	0	0.72900E-06	563714.9	4183348.0	3.0	10.00	0.12	4.65	
L0002089	0	0.72900E-06	563715.1	4183348.0	3.0	10.00	0.12	4.65	
L0002090	0	0.72900E-06	563715.4	4183348.0	3.0	10.00	0.12	4.65	
L0002091	0	0.72900E-06	563715.6	4183347.8	3.0	10.00	0.12	4.65	
L0002092	0	0.72900E-06	563715.8	4183347.8	3.0	10.00	0.12	4.65	
L0002093	0	0.72900E-06	563716.1	4183347.5	3.0	10.00	0.12	4.65	
L0002094	0	0.72900E-06	563716.2	4183347.5	3.0	10.00	0.12	4.65	
L0002095	0	0.72900E-06	563716.5	4183347.2	3.0	10.00	0.12	4.65	
L0002096	0	0.72900E-06	563716.7	4183347.2	3.0	10.00	0.12	4.65	
L0002097	0	0.72900E-06	563716.9	4183347.0	3.0	10.00	0.12	4.65	
L0002098	0	0.72900E-06	563717.1	4183347.0	3.0	10.00	0.12	4.65	
L0002099	0	0.72900E-06	563717.4	4183346.8	3.0	10.00	0.12	4.65	
L0002100	0	0.72900E-06	563717.6	4183346.8	3.0	10.00	0.12	4.65	

L0002101	0	0.72900E-06	563717.8	4183346.8	3.0	10.00	0.12	4.65
L0002102	0	0.72900E-06	563718.1	4183346.5	3.0	10.00	0.12	4.65
L0002103	0	0.72900E-06	563718.2	4183346.5	3.0	10.00	0.12	4.65
L0002104	0	0.72900E-06	563718.5	4183346.2	3.0	10.00	0.12	4.65
L0002105	0	0.72900E-06	563718.7	4183346.2	3.0	10.00	0.12	4.65
L0002106	0	0.72900E-06	563718.9	4183346.0	3.0	10.00	0.12	4.65
L0002107	0	0.72900E-06	563719.1	4183346.0	3.0	10.00	0.12	4.65
L0002108	0	0.72900E-06	563719.4	4183345.8	3.0	10.00	0.12	4.65
L0002109	0	0.72900E-06	563719.6	4183345.8	3.0	10.00	0.12	4.65
L0002110	0	0.72900E-06	563719.8	4183345.5	3.0	10.00	0.12	4.65
L0002111	0	0.72900E-06	563720.1	4183345.5	3.0	10.00	0.12	4.65
L0002112	0	0.72900E-06	563720.3	4183345.5	3.0	10.00	0.12	4.65
L0002113	0	0.72900E-06	563720.5	4183345.3	3.0	10.00	0.12	4.65
L0002114	0	0.72900E-06	563720.7	4183345.3	3.0	10.00	0.12	4.65
L0002115	0	0.72900E-06	563720.9	4183345.0	3.0	10.00	0.12	4.65
L0002116	0	0.72900E-06	563721.2	4183345.0	3.0	10.00	0.12	4.65
L0002117	0	0.72900E-06	563721.4	4183344.8	3.0	10.00	0.12	4.65
L0002118	0	0.72900E-06	563721.6	4183344.8	3.0	10.00	0.12	4.65
L0002119	0	0.72900E-06	563721.8	4183344.5	3.0	10.00	0.12	4.65
L0002120	0	0.72900E-06	563722.1	4183344.5	3.0	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002121	0	0.72900E-06	563722.2	4183344.3	3.0	10.00	0.12	4.65	
L0002122	0	0.72900E-06	563722.5	4183344.3	3.0	10.00	0.12	4.65	
L0002123	0	0.72900E-06	563722.8	4183344.3	3.0	10.00	0.12	4.65	
L0002124	0	0.72900E-06	563722.9	4183344.0	3.0	10.00	0.12	4.65	
L0002125	0	0.72900E-06	563723.2	4183344.0	3.0	10.00	0.12	4.65	
L0002126	0	0.72900E-06	563723.4	4183343.8	3.1	10.00	0.12	4.65	
L0002127	0	0.72900E-06	563723.6	4183343.8	3.1	10.00	0.12	4.65	
L0002128	0	0.72900E-06	563723.8	4183343.5	3.1	10.00	0.12	4.65	
L0002129	0	0.72900E-06	563724.1	4183343.5	3.1	10.00	0.12	4.65	
L0002130	0	0.72900E-06	563724.3	4183343.2	3.1	10.00	0.12	4.65	
L0002131	0	0.72900E-06	563724.5	4183343.2	3.1	10.00	0.12	4.65	
L0002132	0	0.72900E-06	563724.8	4183343.2	3.1	10.00	0.12	4.65	
L0002133	0	0.72900E-06	563724.9	4183343.0	3.1	10.00	0.12	4.65	
L0002134	0	0.72900E-06	563725.2	4183343.0	3.1	10.00	0.12	4.65	
L0002135	0	0.72900E-06	563725.4	4183342.8	3.1	10.00	0.12	4.65	
L0002136	0	0.72900E-06	563725.6	4183342.8	3.1	10.00	0.12	4.65	
L0002137	0	0.72900E-06	563725.8	4183342.5	3.1	10.00	0.12	4.65	
L0002138	0	0.72900E-06	563726.1	4183342.5	3.1	10.00	0.12	4.65	
L0002139	0	0.72900E-06	563726.3	4183342.2	3.1	10.00	0.12	4.65	
L0002140	0	0.72900E-06	563726.5	4183342.2	3.1	10.00	0.12	4.65	

L0002141	0	0.72900E-06	563726.8	4183342.0	3.1	10.00	0.12	4.65
L0002142	0	0.72900E-06	563726.9	4183342.0	3.1	10.00	0.12	4.65
L0002143	0	0.72900E-06	563727.2	4183342.0	3.1	10.00	0.12	4.65
L0002144	0	0.72900E-06	563727.4	4183341.8	3.1	10.00	0.12	4.65
L0002145	0	0.72900E-06	563727.6	4183341.8	3.1	10.00	0.12	4.65
L0002146	0	0.72900E-06	563727.9	4183341.5	3.1	10.00	0.12	4.65
L0002147	0	0.72900E-06	563728.1	4183341.5	3.1	10.00	0.12	4.65
L0002148	0	0.72900E-06	563728.3	4183341.2	3.1	10.00	0.12	4.65
L0002149	0	0.72900E-06	563728.5	4183341.2	3.1	10.00	0.12	4.65
L0002150	0	0.72900E-06	563728.8	4183341.0	3.1	10.00	0.12	4.65
L0002151	0	0.72900E-06	563728.9	4183341.0	3.1	10.00	0.12	4.65
L0002152	0	0.72900E-06	563729.2	4183340.8	3.1	10.00	0.12	4.65
L0002153	0	0.72900E-06	563729.4	4183340.8	3.1	10.00	0.12	4.65
L0002154	0	0.72900E-06	563729.6	4183340.8	3.1	10.00	0.12	4.65
L0002155	0	0.72900E-06	563729.9	4183340.5	3.1	10.00	0.12	4.65
L0002156	0	0.72900E-06	563730.1	4183340.5	3.1	10.00	0.12	4.65
L0002157	0	0.72900E-06	563730.3	4183340.2	3.1	10.00	0.12	4.65
L0002158	0	0.72900E-06	563730.5	4183340.2	3.1	10.00	0.12	4.65
L0002159	0	0.72900E-06	563730.8	4183340.0	3.1	10.00	0.12	4.65
L0002160	0	0.72900E-06	563731.0	4183340.0	3.1	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002161	0	0.72900E-06	563731.2	4183339.8	3.1	10.00	0.12	4.65	
L0002162	0	0.72900E-06	563731.4	4183339.8	3.1	10.00	0.12	4.65	
L0002163	0	0.72900E-06	563731.6	4183339.5	3.1	10.00	0.12	4.65	
L0002164	0	0.72900E-06	563731.9	4183339.5	3.1	10.00	0.12	4.65	
L0002165	0	0.72900E-06	563732.1	4183339.5	3.1	10.00	0.12	4.65	
L0002166	0	0.72900E-06	563732.3	4183339.3	3.1	10.00	0.12	4.65	
L0002167	0	0.72900E-06	563732.6	4183339.3	3.1	10.00	0.12	4.65	
L0002168	0	0.72900E-06	563732.8	4183339.0	3.2	10.00	0.12	4.65	
L0002169	0	0.72900E-06	563733.0	4183339.0	3.2	10.00	0.12	4.65	
L0002170	0	0.72900E-06	563733.2	4183338.8	3.2	10.00	0.12	4.65	
L0002171	0	0.72900E-06	563733.4	4183338.8	3.2	10.00	0.12	4.65	
L0002172	0	0.72900E-06	563733.6	4183338.5	3.2	10.00	0.12	4.65	
L0002173	0	0.72900E-06	563733.9	4183338.5	3.2	10.00	0.12	4.65	
L0002174	0	0.72900E-06	563734.1	4183338.5	3.2	10.00	0.12	4.65	
L0002175	0	0.72900E-06	563734.3	4183338.3	3.2	10.00	0.12	4.65	
L0002176	0	0.72900E-06	563734.6	4183338.3	3.2	10.00	0.12	4.65	
L0002177	0	0.72900E-06	563734.8	4183338.0	3.2	10.00	0.12	4.65	
L0002178	0	0.72900E-06	563735.0	4183338.0	3.2	10.00	0.12	4.65	
L0002179	0	0.72900E-06	563735.2	4183337.8	3.2	10.00	0.12	4.65	
L0002180	0	0.72900E-06	563735.4	4183337.8	3.2	10.00	0.12	4.65	

L0002181	0	0.72900E-06	563735.6	4183337.5	3.2	10.00	0.12	4.65
L0002182	0	0.72900E-06	563735.9	4183337.5	3.2	10.00	0.12	4.65
L0002183	0	0.72900E-06	563736.1	4183337.2	2.5	10.00	0.12	4.65
L0002184	0	0.72900E-06	563736.3	4183337.2	2.5	10.00	0.12	4.65
L0002185	0	0.72900E-06	563736.6	4183337.2	2.5	10.00	0.12	4.65
L0002186	0	0.72900E-06	563736.8	4183337.0	2.5	10.00	0.12	4.65
L0002187	0	0.72900E-06	563737.0	4183337.0	2.5	10.00	0.12	4.65
L0002188	0	0.72900E-06	563737.2	4183336.8	2.5	10.00	0.12	4.65
L0002189	0	0.72900E-06	563737.4	4183336.8	2.5	10.00	0.12	4.65
L0002190	0	0.72900E-06	563737.7	4183336.5	2.5	10.00	0.12	4.65
L0002191	0	0.72900E-06	563737.9	4183336.5	2.5	10.00	0.12	4.65
L0002192	0	0.72900E-06	563738.1	4183336.2	2.5	10.00	0.12	4.65
L0002193	0	0.72900E-06	563738.3	4183336.2	2.5	10.00	0.12	4.65
L0002194	0	0.72900E-06	563738.6	4183336.0	2.5	10.00	0.12	4.65
L0002195	0	0.72900E-06	563738.8	4183336.0	2.5	10.00	0.12	4.65
L0002196	0	0.72900E-06	563739.0	4183336.0	2.5	10.00	0.12	4.65
L0002197	0	0.72900E-06	563739.3	4183335.8	2.5	10.00	0.12	4.65
L0002198	0	0.72900E-06	563739.4	4183335.8	2.5	10.00	0.12	4.65
L0002199	0	0.72900E-06	563739.7	4183335.5	2.5	10.00	0.12	4.65
L0002200	0	0.72900E-06	563739.9	4183335.5	2.5	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002201	0	0.72900E-06	563740.1	4183335.2	2.5	10.00	0.12	4.65	
L0002202	0	0.72900E-06	563740.3	4183335.2	2.5	10.00	0.12	4.65	
L0002203	0	0.72900E-06	563740.6	4183335.0	2.5	10.00	0.12	4.65	
L0002204	0	0.72900E-06	563740.8	4183335.0	2.5	10.00	0.12	4.65	
L0002205	0	0.72900E-06	563741.0	4183335.0	2.5	10.00	0.12	4.65	
L0002206	0	0.72900E-06	563741.2	4183334.8	2.5	10.00	0.12	4.65	
L0002207	0	0.72900E-06	563741.4	4183334.8	2.5	10.00	0.12	4.65	
L0002208	0	0.72900E-06	563741.7	4183334.5	2.5	10.00	0.12	4.65	
L0002209	0	0.72900E-06	563741.9	4183334.5	2.5	10.00	0.12	4.65	
L0002210	0	0.72900E-06	563742.1	4183334.2	2.5	10.00	0.12	4.65	
L0002211	0	0.72900E-06	563742.4	4183334.2	2.5	10.00	0.12	4.65	
L0002212	0	0.72900E-06	563742.6	4183334.0	2.5	10.00	0.12	4.65	
L0002213	0	0.72900E-06	563742.8	4183334.0	2.5	10.00	0.12	4.65	
L0002214	0	0.72900E-06	563743.0	4183333.8	2.5	10.00	0.12	4.65	
L0002215	0	0.72900E-06	563743.2	4183333.8	2.5	10.00	0.12	4.65	
L0002216	0	0.72900E-06	563743.4	4183333.8	2.5	10.00	0.12	4.65	
L0002217	0	0.72900E-06	563743.7	4183333.5	2.5	10.00	0.12	4.65	
L0002218	0	0.72900E-06	563743.9	4183333.5	2.5	10.00	0.12	4.65	
L0002219	0	0.72900E-06	563744.1	4183333.2	2.5	10.00	0.12	4.65	
L0002220	0	0.72900E-06	563744.4	4183333.2	2.5	10.00	0.12	4.65	

L0002221	0	0.72900E-06	563744.6	4183333.0	2.6	10.00	0.12	4.65
L0002222	0	0.72900E-06	563744.8	4183333.0	2.6	10.00	0.12	4.65
L0002223	0	0.72900E-06	563745.0	4183332.8	2.6	10.00	0.12	4.65
L0002224	0	0.72900E-06	563745.3	4183332.8	2.6	10.00	0.12	4.65
L0002225	0	0.72900E-06	563745.4	4183332.5	2.6	10.00	0.12	4.65
L0002226	0	0.72900E-06	563745.7	4183332.5	2.6	10.00	0.12	4.65
L0002227	0	0.72900E-06	563745.9	4183332.5	2.6	10.00	0.12	4.65
L0002228	0	0.72900E-06	563746.1	4183332.3	2.6	10.00	0.12	4.65
L0002229	0	0.72900E-06	563746.4	4183332.3	2.6	10.00	0.12	4.65
L0002230	0	0.72900E-06	563746.6	4183332.0	2.6	10.00	0.12	4.65
L0002231	0	0.72900E-06	563746.8	4183332.0	2.6	10.00	0.12	4.65
L0002232	0	0.72900E-06	563747.0	4183331.8	2.6	10.00	0.12	4.65
L0002233	0	0.72900E-06	563747.2	4183331.8	2.6	10.00	0.12	4.65
L0002234	0	0.72900E-06	563747.5	4183331.5	2.6	10.00	0.12	4.65
L0002235	0	0.72900E-06	563747.7	4183331.5	2.6	10.00	0.12	4.65
L0002236	0	0.72900E-06	563747.9	4183331.2	2.6	10.00	0.12	4.65
L0002237	0	0.72900E-06	563748.1	4183331.2	2.6	10.00	0.12	4.65
L0002238	0	0.72900E-06	563748.4	4183331.2	2.6	10.00	0.12	4.65
L0002239	0	0.72900E-06	563748.6	4183331.0	2.6	10.00	0.12	4.65
L0002240	0	0.72900E-06	563748.8	4183331.0	2.6	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002241	0	0.72900E-06	563749.1	4183330.8	2.6	10.00	0.12	4.65	
L0002242	0	0.72900E-06	563749.2	4183330.8	2.6	10.00	0.12	4.65	
L0002243	0	0.72900E-06	563749.5	4183330.5	2.7	10.00	0.12	4.65	
L0002244	0	0.72900E-06	563749.7	4183330.5	2.7	10.00	0.12	4.65	
L0002245	0	0.72900E-06	563749.9	4183330.2	2.7	10.00	0.12	4.65	
L0002246	0	0.72900E-06	563750.1	4183330.2	2.7	10.00	0.12	4.65	
L0002247	0	0.72900E-06	563750.4	4183330.2	2.7	10.00	0.12	4.65	
L0002248	0	0.72900E-06	563750.6	4183330.0	2.7	10.00	0.12	4.65	
L0002249	0	0.72900E-06	563750.8	4183330.0	2.7	10.00	0.12	4.65	
L0002250	0	0.72900E-06	563751.1	4183329.8	2.7	10.00	0.12	4.65	
L0002251	0	0.72900E-06	563751.2	4183329.8	2.7	10.00	0.12	4.65	
L0002252	0	0.72900E-06	563751.5	4183329.5	2.7	10.00	0.12	4.65	
L0002253	0	0.72900E-06	563751.7	4183329.5	2.7	10.00	0.12	4.65	
L0002254	0	0.72900E-06	563751.9	4183329.2	2.7	10.00	0.12	4.65	
L0002255	0	0.72900E-06	563752.1	4183329.2	2.7	10.00	0.12	4.65	
L0002256	0	0.72900E-06	563752.4	4183329.0	2.7	10.00	0.12	4.65	
L0002257	0	0.72900E-06	563752.6	4183329.0	2.7	10.00	0.12	4.65	
L0002258	0	0.72900E-06	563752.8	4183329.0	2.7	10.00	0.12	4.65	
L0002259	0	0.72900E-06	563753.1	4183328.8	2.8	10.00	0.12	4.65	
L0002260	0	0.72900E-06	563753.2	4183328.8	2.8	10.00	0.12	4.65	

L0002261	0	0.72900E-06	563753.5	4183328.5	2.8	10.00	0.12	4.65
L0002262	0	0.72900E-06	563753.7	4183328.5	2.8	10.00	0.12	4.65
L0002263	0	0.72900E-06	563753.9	4183328.2	2.8	10.00	0.12	4.65
L0002264	0	0.72900E-06	563754.2	4183328.2	2.8	10.00	0.12	4.65
L0002265	0	0.72900E-06	563754.4	4183328.0	2.8	10.00	0.12	4.65
L0002266	0	0.72900E-06	563754.6	4183328.0	2.8	10.00	0.12	4.65
L0002267	0	0.72900E-06	563754.8	4183327.8	2.8	10.00	0.12	4.65
L0002268	0	0.72900E-06	563755.1	4183327.8	2.8	10.00	0.12	4.65
L0002269	0	0.72900E-06	563755.3	4183327.8	2.8	10.00	0.12	4.65
L0002270	0	0.72900E-06	563755.5	4183327.5	2.8	10.00	0.12	4.65
L0002271	0	0.72900E-06	563755.8	4183327.5	2.8	10.00	0.12	4.65
L0002272	0	0.72900E-06	563755.9	4183327.2	2.8	10.00	0.12	4.65
L0002273	0	0.72900E-06	563756.2	4183327.2	2.8	10.00	0.12	4.65
L0002274	0	0.72900E-06	563756.4	4183327.0	2.8	10.00	0.12	4.65
L0002275	0	0.72900E-06	563756.6	4183327.0	2.8	10.00	0.12	4.65
L0002276	0	0.72900E-06	563756.8	4183326.8	2.8	10.00	0.12	4.65
L0002277	0	0.72900E-06	563757.1	4183326.8	2.8	10.00	0.12	4.65
L0002278	0	0.72900E-06	563757.3	4183326.5	2.8	10.00	0.12	4.65
L0002279	0	0.72900E-06	563757.5	4183326.5	2.8	10.00	0.12	4.65
L0002280	0	0.72900E-06	563757.8	4183326.5	2.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002281	0	0.72900E-06	563757.9	4183326.3	2.9	10.00	0.12	4.65	
L0002282	0	0.72900E-06	563758.2	4183326.3	2.9	10.00	0.12	4.65	
L0002283	0	0.72900E-06	563758.4	4183326.0	2.9	10.00	0.12	4.65	
L0002284	0	0.72900E-06	563758.6	4183326.0	2.9	10.00	0.12	4.65	
L0002285	0	0.72900E-06	563758.9	4183325.8	2.9	10.00	0.12	4.65	
L0002286	0	0.72900E-06	563759.1	4183325.8	2.9	10.00	0.12	4.65	
L0002287	0	0.72900E-06	563759.3	4183325.5	2.9	10.00	0.12	4.65	
L0002288	0	0.72900E-06	563759.5	4183325.5	2.9	10.00	0.12	4.65	
L0002289	0	0.72900E-06	563759.8	4183325.5	2.9	10.00	0.12	4.65	
L0002290	0	0.72900E-06	563759.9	4183325.3	2.9	10.00	0.12	4.65	
L0002291	0	0.72900E-06	563760.2	4183325.3	2.1	10.00	0.12	4.65	
L0002292	0	0.72900E-06	563760.4	4183325.0	2.1	10.00	0.12	4.65	
L0002293	0	0.72900E-06	563760.6	4183325.0	2.1	10.00	0.12	4.65	
L0002294	0	0.72900E-06	563760.9	4183324.8	2.1	10.00	0.12	4.65	
L0002295	0	0.72900E-06	563761.1	4183324.8	2.1	10.00	0.12	4.65	
L0002296	0	0.72900E-06	563761.3	4183324.5	2.1	10.00	0.12	4.65	
L0002297	0	0.72900E-06	563761.5	4183324.5	2.1	10.00	0.12	4.65	
L0002298	0	0.72900E-06	563761.8	4183324.2	2.1	10.00	0.12	4.65	
L0002299	0	0.72900E-06	563761.9	4183324.2	2.1	10.00	0.12	4.65	
L0002300	0	0.72900E-06	563762.2	4183324.2	2.1	10.00	0.12	4.65	

L0002301	0	0.72900E-06	563762.4	4183324.0	2.1	10.00	0.12	4.65
L0002302	0	0.72900E-06	563762.6	4183324.0	2.1	10.00	0.12	4.65
L0002303	0	0.72900E-06	563762.9	4183323.8	2.1	10.00	0.12	4.65
L0002304	0	0.72900E-06	563763.1	4183323.8	2.1	10.00	0.12	4.65
L0002305	0	0.72900E-06	563763.3	4183323.5	2.1	10.00	0.12	4.65
L0002306	0	0.72900E-06	563763.5	4183323.5	2.1	10.00	0.12	4.65
L0002307	0	0.72900E-06	563763.8	4183323.2	2.1	10.00	0.12	4.65
L0002308	0	0.72900E-06	563764.0	4183323.2	2.1	10.00	0.12	4.65
L0002309	0	0.72900E-06	563764.2	4183323.0	2.1	10.00	0.12	4.65
L0002310	0	0.72900E-06	563764.4	4183323.0	2.1	10.00	0.12	4.65
L0002311	0	0.72900E-06	563764.6	4183323.0	2.1	10.00	0.12	4.65
L0002312	0	0.72900E-06	563764.9	4183322.8	2.0	10.00	0.12	4.65
L0002313	0	0.72900E-06	563765.1	4183322.8	2.0	10.00	0.12	4.65
L0002314	0	0.72900E-06	563765.3	4183322.5	2.0	10.00	0.12	4.65
L0002315	0	0.72900E-06	563765.6	4183322.5	2.0	10.00	0.12	4.65
L0002316	0	0.72900E-06	563765.8	4183322.2	2.0	10.00	0.12	4.65
L0002317	0	0.72900E-06	563766.0	4183322.2	2.0	10.00	0.12	4.65
L0002318	0	0.72900E-06	563766.2	4183322.0	2.0	10.00	0.12	4.65
L0002319	0	0.72900E-06	563766.4	4183322.0	2.0	10.00	0.12	4.65
L0002320	0	0.72900E-06	563766.6	4183322.0	2.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002321	0	0.72900E-06	563766.9	4183321.8	2.0	10.00	0.12	4.65	
L0002322	0	0.72900E-06	563767.1	4183321.8	2.0	10.00	0.12	4.65	
L0002323	0	0.72900E-06	563767.3	4183321.5	2.0	10.00	0.12	4.65	
L0002324	0	0.72900E-06	563767.6	4183321.5	2.0	10.00	0.12	4.65	
L0002325	0	0.72900E-06	563767.8	4183321.2	2.0	10.00	0.12	4.65	
L0002326	0	0.72900E-06	563768.0	4183321.2	2.0	10.00	0.12	4.65	
L0002327	0	0.72900E-06	563768.2	4183321.0	2.0	10.00	0.12	4.65	
L0002328	0	0.72900E-06	563768.4	4183321.0	2.0	10.00	0.12	4.65	
L0002329	0	0.72900E-06	563768.6	4183320.8	2.0	10.00	0.12	4.65	
L0002330	0	0.72900E-06	563768.9	4183320.8	2.0	10.00	0.12	4.65	
L0002331	0	0.72900E-06	563769.1	4183320.8	2.0	10.00	0.12	4.65	
L0002332	0	0.72900E-06	563769.3	4183320.5	2.0	10.00	0.12	4.65	
L0002333	0	0.72900E-06	563769.6	4183320.5	2.0	10.00	0.12	4.65	
L0002334	0	0.72900E-06	563769.8	4183320.3	2.0	10.00	0.12	4.65	
L0002335	0	0.72900E-06	563770.0	4183320.3	2.0	10.00	0.12	4.65	
L0002336	0	0.72900E-06	563770.2	4183320.0	2.0	10.00	0.12	4.65	
L0002337	0	0.72900E-06	563770.4	4183320.0	2.0	10.00	0.12	4.65	
L0002338	0	0.72900E-06	563770.7	4183319.8	2.3	10.00	0.12	4.65	
L0002339	0	0.72900E-06	563770.9	4183319.8	2.3	10.00	0.12	4.65	
L0002340	0	0.72900E-06	563771.1	4183319.5	2.3	10.00	0.12	4.65	

L0002341	0	0.72900E-06	563771.3	4183319.5	2.3	10.00	0.12	4.65
L0002342	0	0.72900E-06	563771.6	4183319.5	2.3	10.00	0.12	4.65
L0002343	0	0.72900E-06	563771.8	4183319.3	2.3	10.00	0.12	4.65
L0002344	0	0.72900E-06	563772.0	4183319.3	2.2	10.00	0.12	4.65
L0002345	0	0.72900E-06	563772.2	4183319.0	2.2	10.00	0.12	4.65
L0002346	0	0.72900E-06	563772.4	4183319.0	2.2	10.00	0.12	4.65
L0002347	0	0.72900E-06	563772.7	4183318.8	2.2	10.00	0.12	4.65
L0002348	0	0.72900E-06	563772.9	4183318.8	2.2	10.00	0.12	4.65
L0002349	0	0.72900E-06	563773.1	4183318.5	2.2	10.00	0.12	4.65
L0002350	0	0.72900E-06	563773.3	4183318.5	2.2	10.00	0.12	4.65
L0002351	0	0.72900E-06	563773.6	4183318.2	2.2	10.00	0.12	4.65
L0002352	0	0.72900E-06	563773.8	4183318.2	2.2	10.00	0.12	4.65
L0002353	0	0.72900E-06	563774.0	4183318.2	2.1	10.00	0.12	4.65
L0002354	0	0.72900E-06	563774.3	4183318.0	2.1	10.00	0.12	4.65
L0002355	0	0.72900E-06	563774.4	4183318.0	2.1	10.00	0.12	4.65
L0002356	0	0.72900E-06	563774.7	4183317.8	2.1	10.00	0.12	4.65
L0002357	0	0.72900E-06	563774.9	4183317.8	2.1	10.00	0.12	4.65
L0002358	0	0.72900E-06	563775.1	4183317.5	2.1	10.00	0.12	4.65
L0002359	0	0.72900E-06	563775.4	4183317.5	2.1	10.00	0.12	4.65
L0002360	0	0.72900E-06	563775.6	4183317.2	2.1	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002361	0	0.72900E-06	563775.8	4183317.2	2.1	10.00	0.12	4.65	
L0002362	0	0.72900E-06	563776.0	4183317.2	2.1	10.00	0.12	4.65	
L0002363	0	0.72900E-06	563776.2	4183317.0	2.1	10.00	0.12	4.65	
L0002364	0	0.72900E-06	563776.4	4183317.0	2.1	10.00	0.12	4.65	
L0002365	0	0.72900E-06	563776.7	4183316.8	2.0	10.00	0.12	4.65	
L0002366	0	0.72900E-06	563776.9	4183316.8	2.0	10.00	0.12	4.65	
L0002367	0	0.72900E-06	563777.1	4183316.5	2.0	10.00	0.12	4.65	
L0002368	0	0.72900E-06	563777.4	4183316.5	2.0	10.00	0.12	4.65	
L0002369	0	0.72900E-06	563777.6	4183316.2	2.0	10.00	0.12	4.65	
L0002370	0	0.72900E-06	563777.8	4183316.2	2.0	10.00	0.12	4.65	
L0002371	0	0.72900E-06	563778.0	4183316.0	2.0	10.00	0.12	4.65	
L0002372	0	0.72900E-06	563778.2	4183316.0	2.0	10.00	0.12	4.65	
L0002373	0	0.72900E-06	563778.4	4183316.0	2.0	10.00	0.12	4.65	
L0002374	0	0.72900E-06	563778.7	4183315.8	2.0	10.00	0.12	4.65	
L0002375	0	0.72900E-06	563778.9	4183315.8	2.0	10.00	0.12	4.65	
L0002376	0	0.72900E-06	563779.1	4183315.5	2.0	10.00	0.12	4.65	
L0002377	0	0.72900E-06	563779.4	4183315.5	2.0	10.00	0.12	4.65	
L0002378	0	0.72900E-06	563779.6	4183315.2	2.0	10.00	0.12	4.65	
L0002379	0	0.72900E-06	563779.8	4183315.2	2.0	10.00	0.12	4.65	
L0002380	0	0.72900E-06	563780.0	4183315.0	2.0	10.00	0.12	4.65	

L0002381	0	0.72900E-06	563780.3	4183315.0	2.0	10.00	0.12	4.65
L0002382	0	0.72900E-06	563780.5	4183314.8	2.0	10.00	0.12	4.65
L0002383	0	0.72900E-06	563780.7	4183314.8	2.0	10.00	0.12	4.65
L0002384	0	0.72900E-06	563780.9	4183314.8	2.0	10.00	0.12	4.65
L0002385	0	0.72900E-06	563781.1	4183314.5	2.0	10.00	0.12	4.65
L0002386	0	0.72900E-06	563781.4	4183314.5	2.0	10.00	0.12	4.65
L0002387	0	0.72900E-06	563781.6	4183314.2	2.0	10.00	0.12	4.65
L0002388	0	0.72900E-06	563781.8	4183314.2	2.0	10.00	0.12	4.65
L0002389	0	0.72900E-06	563782.1	4183314.0	2.0	10.00	0.12	4.65
L0002390	0	0.72900E-06	563782.2	4183314.0	2.0	10.00	0.12	4.65
L0002391	0	0.72900E-06	563782.5	4183313.8	2.0	10.00	0.12	4.65
L0002392	0	0.72900E-06	563782.7	4183313.8	2.0	10.00	0.12	4.65
L0002393	0	0.72900E-06	563782.9	4183313.5	2.0	10.00	0.12	4.65
L0002394	0	0.72900E-06	563783.1	4183313.5	2.0	10.00	0.12	4.65
L0002395	0	0.72900E-06	563783.4	4183313.5	2.0	10.00	0.12	4.65
L0002396	0	0.72900E-06	563783.6	4183313.3	2.0	10.00	0.12	4.65
L0002397	0	0.72900E-06	563783.8	4183313.3	2.0	10.00	0.12	4.65
L0002398	0	0.72900E-06	563784.1	4183313.0	2.0	10.00	0.12	4.65
L0002399	0	0.72900E-06	563784.3	4183313.0	2.0	10.00	0.12	4.65
L0002400	0	0.72900E-06	563784.5	4183312.8	2.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002401	0	0.72900E-06	563784.7	4183312.8	2.0	10.00	0.12	4.65	
L0002402	0	0.72900E-06	563784.9	4183312.5	2.1	10.00	0.12	4.65	
L0002403	0	0.72900E-06	563785.2	4183312.5	2.1	10.00	0.12	4.65	
L0002404	0	0.72900E-06	563785.4	4183312.5	2.1	10.00	0.12	4.65	
L0002405	0	0.72900E-06	563785.6	4183312.2	2.1	10.00	0.12	4.65	
L0002406	0	0.72900E-06	563785.8	4183312.2	2.1	10.00	0.12	4.65	
L0002407	0	0.72900E-06	563786.1	4183312.0	2.1	10.00	0.12	4.65	
L0002408	0	0.72900E-06	563786.2	4183312.0	2.1	10.00	0.12	4.65	
L0002409	0	0.72900E-06	563786.5	4183311.8	2.1	10.00	0.12	4.65	
L0002410	0	0.72900E-06	563786.7	4183311.8	2.1	10.00	0.12	4.65	
L0002411	0	0.72900E-06	563786.9	4183311.5	2.1	10.00	0.12	4.65	
L0002412	0	0.72900E-06	563787.2	4183311.5	2.1	10.00	0.12	4.65	
L0002413	0	0.72900E-06	563787.4	4183311.2	2.1	10.00	0.12	4.65	
L0002414	0	0.72900E-06	563787.6	4183311.2	2.1	10.00	0.12	4.65	
L0002415	0	0.72900E-06	563787.8	4183311.2	2.1	10.00	0.12	4.65	
L0002416	0	0.72900E-06	563788.1	4183311.0	2.1	10.00	0.12	4.65	
L0002417	0	0.72900E-06	563788.2	4183311.0	2.1	10.00	0.12	4.65	
L0002418	0	0.72900E-06	563788.5	4183310.8	2.2	10.00	0.12	4.65	
L0002419	0	0.72900E-06	563788.8	4183310.8	2.2	10.00	0.12	4.65	
L0002420	0	0.72900E-06	563788.9	4183310.5	2.2	10.00	0.12	4.65	

L0002421	0	0.72900E-06	563789.2	4183310.5	2.2	10.00	0.12	4.65
L0002422	0	0.72900E-06	563789.4	4183310.2	2.2	10.00	0.12	4.65
L0002423	0	0.72900E-06	563789.6	4183310.2	2.2	10.00	0.12	4.65
L0002424	0	0.72900E-06	563789.8	4183310.0	2.2	10.00	0.12	4.65
L0002425	0	0.72900E-06	563790.1	4183310.0	2.2	10.00	0.12	4.65
L0002426	0	0.72900E-06	563790.3	4183310.0	2.2	10.00	0.12	4.65
L0002427	0	0.72900E-06	563790.5	4183309.8	2.2	10.00	0.12	4.65
L0002428	0	0.72900E-06	563790.8	4183309.8	2.2	10.00	0.12	4.65
L0002429	0	0.72900E-06	563790.9	4183309.5	2.2	10.00	0.12	4.65
L0002430	0	0.72900E-06	563791.2	4183309.5	2.2	10.00	0.12	4.65
L0002431	0	0.72900E-06	563791.4	4183309.2	2.2	10.00	0.12	4.65
L0002432	0	0.72900E-06	563791.6	4183309.2	2.2	10.00	0.12	4.65
L0002433	0	0.72900E-06	563791.9	4183309.0	2.2	10.00	0.12	4.65
L0002434	0	0.72900E-06	563792.1	4183309.0	2.2	10.00	0.12	4.65
L0002435	0	0.72900E-06	563792.3	4183309.0	2.2	10.00	0.12	4.65
L0002436	0	0.72900E-06	563792.5	4183308.8	2.2	10.00	0.12	4.65
L0002437	0	0.72900E-06	563792.8	4183308.8	2.3	10.00	0.12	4.65
L0002438	0	0.72900E-06	563792.9	4183308.5	2.3	10.00	0.12	4.65
L0002439	0	0.72900E-06	563793.2	4183308.5	2.3	10.00	0.12	4.65
L0002440	0	0.72900E-06	563793.4	4183308.2	2.3	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002441	0	0.72900E-06	563793.6	4183308.2	2.3	10.00	0.12	4.65	
L0002442	0	0.72900E-06	563793.9	4183308.0	2.3	10.00	0.12	4.65	
L0002443	0	0.72900E-06	563794.1	4183308.0	2.3	10.00	0.12	4.65	
L0002444	0	0.72900E-06	563794.3	4183307.8	2.3	10.00	0.12	4.65	
L0002445	0	0.72900E-06	563794.5	4183307.8	2.3	10.00	0.12	4.65	
L0002446	0	0.72900E-06	563794.8	4183307.8	2.3	10.00	0.12	4.65	
L0002447	0	0.72900E-06	563794.9	4183307.5	2.3	10.00	0.12	4.65	
L0002448	0	0.72900E-06	563795.2	4183307.5	2.3	10.00	0.12	4.65	
L0002449	0	0.72900E-06	563795.4	4183307.3	2.3	10.00	0.12	4.65	
L0002450	0	0.72900E-06	563795.6	4183307.3	2.3	10.00	0.12	4.65	
L0002451	0	0.72900E-06	563795.9	4183307.0	2.3	10.00	0.12	4.65	
L0002452	0	0.72900E-06	563796.1	4183307.0	2.3	10.00	0.12	4.65	
L0002453	0	0.72900E-06	563796.3	4183306.8	2.3	10.00	0.12	4.65	
L0002454	0	0.72900E-06	563796.5	4183306.8	2.3	10.00	0.12	4.65	
L0002455	0	0.72900E-06	563796.8	4183306.5	2.3	10.00	0.12	4.65	
L0002456	0	0.72900E-06	563797.0	4183306.5	2.3	10.00	0.12	4.65	
L0002457	0	0.72900E-06	563797.2	4183306.5	2.3	10.00	0.12	4.65	
L0002458	0	0.72900E-06	563797.4	4183306.3	2.4	10.00	0.12	4.65	
L0002459	0	0.72900E-06	563797.6	4183306.3	2.4	10.00	0.12	4.65	
L0002460	0	0.72900E-06	563797.9	4183306.0	2.4	10.00	0.12	4.65	

L0002461	0	0.72900E-06	563798.1	4183306.0	2.4	10.00	0.12	4.65
L0002462	0	0.72900E-06	563798.3	4183305.8	2.4	10.00	0.12	4.65
L0002463	0	0.72900E-06	563798.6	4183305.8	2.4	10.00	0.12	4.65
L0002464	0	0.72900E-06	563798.8	4183305.5	2.4	10.00	0.12	4.65
L0002465	0	0.72900E-06	563799.0	4183305.5	2.4	10.00	0.12	4.65
L0002466	0	0.72900E-06	563799.2	4183305.2	2.4	10.00	0.12	4.65
L0002467	0	0.72900E-06	563799.4	4183305.2	2.4	10.00	0.12	4.65
L0002468	0	0.72900E-06	563799.6	4183305.2	2.4	10.00	0.12	4.65
L0002469	0	0.72900E-06	563799.9	4183305.0	2.4	10.00	0.12	4.65
L0002470	0	0.72900E-06	563800.1	4183305.0	2.4	10.00	0.12	4.65
L0002471	0	0.72900E-06	563800.3	4183304.8	2.4	10.00	0.12	4.65
L0002472	0	0.72900E-06	563800.6	4183304.8	2.4	10.00	0.12	4.65
L0002473	0	0.72900E-06	563800.8	4183304.5	2.4	10.00	0.12	4.65
L0002474	0	0.72900E-06	563801.0	4183304.5	2.5	10.00	0.12	4.65
L0002475	0	0.72900E-06	563801.2	4183304.2	2.5	10.00	0.12	4.65
L0002476	0	0.72900E-06	563801.4	4183304.2	2.5	10.00	0.12	4.65
L0002477	0	0.72900E-06	563801.7	4183304.2	2.5	10.00	0.12	4.65
L0002478	0	0.72900E-06	563801.9	4183304.0	2.5	10.00	0.12	4.65
L0002479	0	0.72900E-06	563802.1	4183304.0	2.5	10.00	0.12	4.65
L0002480	0	0.72900E-06	563802.3	4183303.8	2.5	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002481	0	0.72900E-06	563802.6	4183303.8	2.5	10.00	0.12	4.65	
L0002482	0	0.72900E-06	563802.8	4183303.5	2.5	10.00	0.12	4.65	
L0002483	0	0.72900E-06	563803.0	4183303.5	2.5	10.00	0.12	4.65	
L0002484	0	0.72900E-06	563803.2	4183303.2	2.5	10.00	0.12	4.65	
L0002485	0	0.72900E-06	563803.4	4183303.2	2.5	10.00	0.12	4.65	
L0002486	0	0.72900E-06	563803.7	4183303.0	2.5	10.00	0.12	4.65	
L0002487	0	0.72900E-06	563803.9	4183303.0	2.5	10.00	0.12	4.65	
L0002488	0	0.72900E-06	563804.1	4183303.0	2.5	10.00	0.12	4.65	
L0002489	0	0.72900E-06	563804.3	4183302.8	2.6	10.00	0.12	4.65	
L0002490	0	0.72900E-06	563804.6	4183302.8	2.6	10.00	0.12	4.65	
L0002491	0	0.72900E-06	563804.8	4183302.5	2.6	10.00	0.12	4.65	
L0002492	0	0.72900E-06	563805.0	4183302.5	2.6	10.00	0.12	4.65	
L0002493	0	0.72900E-06	563805.2	4183302.2	2.6	10.00	0.12	4.65	
L0002494	0	0.72900E-06	563805.4	4183302.2	2.6	10.00	0.12	4.65	
L0002495	0	0.72900E-06	563805.7	4183302.0	2.6	10.00	0.12	4.65	
L0002496	0	0.72900E-06	563805.9	4183302.0	2.6	10.00	0.12	4.65	
L0002497	0	0.72900E-06	563806.1	4183301.8	2.6	10.00	0.12	4.65	
L0002498	0	0.72900E-06	563806.3	4183301.8	2.6	10.00	0.12	4.65	
L0002499	0	0.72900E-06	563806.6	4183301.8	2.6	10.00	0.12	4.65	
L0002500	0	0.72900E-06	563806.8	4183301.5	2.7	10.00	0.12	4.65	

L0002501	0	0.72900E-06	563807.0	4183301.5	2.7	10.00	0.12	4.65
L0002502	0	0.72900E-06	563807.2	4183301.2	2.7	10.00	0.12	4.65
L0002503	0	0.72900E-06	563807.4	4183301.2	2.7	10.00	0.12	4.65
L0002504	0	0.72900E-06	563807.7	4183301.0	2.7	10.00	0.12	4.65
L0002505	0	0.72900E-06	563807.9	4183301.0	2.7	10.00	0.12	4.65
L0002506	0	0.72900E-06	563808.1	4183300.8	3.2	10.00	0.12	4.65
L0002507	0	0.72900E-06	563808.4	4183300.8	3.2	10.00	0.12	4.65
L0002508	0	0.72900E-06	563808.6	4183300.5	3.3	10.00	0.12	4.65
L0002509	0	0.72900E-06	563808.8	4183300.5	3.3	10.00	0.12	4.65
L0002510	0	0.72900E-06	563809.0	4183300.5	3.3	10.00	0.12	4.65
L0002511	0	0.72900E-06	563809.3	4183300.3	3.3	10.00	0.12	4.65
L0002512	0	0.72900E-06	563809.4	4183300.3	3.3	10.00	0.12	4.65
L0002513	0	0.72900E-06	563809.7	4183300.0	3.4	10.00	0.12	4.65
L0002514	0	0.72900E-06	563809.9	4183300.0	3.4	10.00	0.12	4.65
L0002515	0	0.72900E-06	563810.1	4183299.8	3.4	10.00	0.12	4.65
L0002516	0	0.72900E-06	563810.4	4183299.8	3.4	10.00	0.12	4.65
L0002517	0	0.72900E-06	563810.6	4183299.5	3.5	10.00	0.12	4.65
L0002518	0	0.72900E-06	563810.8	4183299.5	3.5	10.00	0.12	4.65
L0002519	0	0.72900E-06	563811.0	4183299.5	3.5	10.00	0.12	4.65
L0002520	0	0.72900E-06	563811.2	4183299.2	3.5	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002521	0	0.72900E-06	563811.5	4183299.2	3.5	10.00	0.12	4.65	
L0002522	0	0.72900E-06	563811.7	4183299.0	3.6	10.00	0.12	4.65	
L0002523	0	0.72900E-06	563811.9	4183299.0	3.6	10.00	0.12	4.65	
L0002524	0	0.72900E-06	563812.1	4183298.8	3.6	10.00	0.12	4.65	
L0002525	0	0.72900E-06	563812.4	4183298.8	3.6	10.00	0.12	4.65	
L0002526	0	0.72900E-06	563812.6	4183298.5	3.7	10.00	0.12	4.65	
L0002527	0	0.72900E-06	563812.8	4183298.5	3.7	10.00	0.12	4.65	
L0002528	0	0.72900E-06	563813.0	4183298.2	3.7	10.00	0.12	4.65	
L0002529	0	0.72900E-06	563813.2	4183298.2	3.7	10.00	0.12	4.65	
L0002530	0	0.72900E-06	563813.5	4183298.2	3.7	10.00	0.12	4.65	
L0002531	0	0.72900E-06	563813.7	4183298.0	3.8	10.00	0.12	4.65	
L0002532	0	0.72900E-06	563813.9	4183298.0	3.8	10.00	0.12	4.65	
L0002533	0	0.72900E-06	563814.1	4183297.8	3.8	10.00	0.12	4.65	
L0002534	0	0.72900E-06	563814.4	4183297.8	3.8	10.00	0.12	4.65	
L0002535	0	0.72900E-06	563814.6	4183297.5	3.9	10.00	0.12	4.65	
L0002536	0	0.72900E-06	563814.8	4183297.5	3.9	10.00	0.12	4.65	
L0002537	0	0.72900E-06	563815.1	4183297.2	3.9	10.00	0.12	4.65	
L0002538	0	0.72900E-06	563815.3	4183297.2	3.9	10.00	0.12	4.65	
L0002539	0	0.72900E-06	563815.5	4183297.0	4.0	10.00	0.12	4.65	
L0002540	0	0.72900E-06	563815.7	4183297.0	4.0	10.00	0.12	4.65	

L0002541	0	0.72900E-06	563815.9	4183297.0	4.0	10.00	0.12	4.65
L0002542	0	0.72900E-06	563816.1	4183296.8	4.0	10.00	0.12	4.65
L0002543	0	0.72900E-06	563816.4	4183296.8	4.0	10.00	0.12	4.65
L0002544	0	0.72900E-06	563816.6	4183296.5	4.1	10.00	0.12	4.65
L0002545	0	0.72900E-06	563816.8	4183296.5	4.1	10.00	0.12	4.65
L0002546	0	0.72900E-06	563817.1	4183296.2	4.1	10.00	0.12	4.65
L0002547	0	0.72900E-06	563817.2	4183296.2	4.1	10.00	0.12	4.65
L0002548	0	0.72900E-06	563817.5	4183296.0	4.2	10.00	0.12	4.65
L0002549	0	0.72900E-06	563817.7	4183296.0	4.2	10.00	0.12	4.65
L0002550	0	0.72900E-06	563817.9	4183296.0	4.2	10.00	0.12	4.65
L0002551	0	0.72900E-06	563818.2	4183295.8	4.1	10.00	0.12	4.65
L0002552	0	0.72900E-06	563818.4	4183295.8	4.1	10.00	0.12	4.65
L0002553	0	0.72900E-06	563818.6	4183295.5	4.1	10.00	0.12	4.65
L0002554	0	0.72900E-06	563818.8	4183295.5	4.1	10.00	0.12	4.65
L0002555	0	0.72900E-06	563819.1	4183295.2	4.2	10.00	0.12	4.65
L0002556	0	0.72900E-06	563819.2	4183295.2	4.2	10.00	0.12	4.65
L0002557	0	0.72900E-06	563819.5	4183295.0	4.2	10.00	0.12	4.65
L0002558	0	0.72900E-06	563819.8	4183295.0	4.2	10.00	0.12	4.65
L0002559	0	0.72900E-06	563819.9	4183294.8	4.2	10.00	0.12	4.65
L0002560	0	0.72900E-06	563820.2	4183294.8	4.3	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002561	0	0.72900E-06	563820.4	4183294.8	4.3	10.00	0.12	4.65	
L0002562	0	0.72900E-06	563820.6	4183294.5	4.3	10.00	0.12	4.65	
L0002563	0	0.72900E-06	563820.8	4183294.5	4.3	10.00	0.12	4.65	
L0002564	0	0.72900E-06	563821.1	4183294.3	4.4	10.00	0.12	4.65	
L0002565	0	0.72900E-06	563821.2	4183294.3	4.4	10.00	0.12	4.65	
L0002566	0	0.72900E-06	563821.5	4183294.0	4.4	10.00	0.12	4.65	
L0002567	0	0.72900E-06	563821.8	4183294.0	4.4	10.00	0.12	4.65	
L0002568	0	0.72900E-06	563821.9	4183293.8	4.4	10.00	0.12	4.65	
L0002569	0	0.72900E-06	563822.2	4183293.8	4.5	10.00	0.12	4.65	
L0002570	0	0.72900E-06	563822.4	4183293.5	4.5	10.00	0.12	4.65	
L0002571	0	0.72900E-06	563822.6	4183293.5	4.5	10.00	0.12	4.65	
L0002572	0	0.72900E-06	563822.8	4183293.5	4.5	10.00	0.12	4.65	
L0002573	0	0.72900E-06	563823.1	4183293.2	4.6	10.00	0.12	4.65	
L0002574	0	0.72900E-06	563823.3	4183293.2	4.6	10.00	0.12	4.65	
L0002575	0	0.72900E-06	563823.5	4183293.0	4.6	10.00	0.12	4.65	
L0002576	0	0.72900E-06	563823.8	4183293.0	4.6	10.00	0.12	4.65	
L0002577	0	0.72900E-06	563823.9	4183292.8	4.6	10.00	0.12	4.65	
L0002578	0	0.72900E-06	563824.2	4183292.8	4.7	10.00	0.12	4.65	
L0002579	0	0.72900E-06	563824.4	4183292.5	4.7	10.00	0.12	4.65	
L0002580	0	0.72900E-06	563824.6	4183292.5	4.7	10.00	0.12	4.65	

L0002581	0	0.72900E-06	563824.9	4183292.2	4.7	10.00	0.12	4.65
L0002582	0	0.72900E-06	563825.1	4183292.2	4.7	10.00	0.12	4.65
L0002583	0	0.72900E-06	563825.3	4183292.2	4.8	10.00	0.12	4.65
L0002584	0	0.72900E-06	563825.5	4183292.0	4.8	10.00	0.12	4.65
L0002585	0	0.72900E-06	563825.8	4183292.0	4.8	10.00	0.12	4.65
L0002586	0	0.72900E-06	563825.9	4183291.8	4.8	10.00	0.12	4.65
L0002587	0	0.72900E-06	563826.2	4183291.8	4.8	10.00	0.12	4.65
L0002588	0	0.72900E-06	563826.4	4183291.5	4.8	10.00	0.12	4.65
L0002589	0	0.72900E-06	563826.6	4183291.5	4.8	10.00	0.12	4.65
L0002590	0	0.72900E-06	563826.9	4183291.2	4.9	10.00	0.12	4.65
L0002591	0	0.72900E-06	563827.1	4183291.2	4.9	10.00	0.12	4.65
L0002592	0	0.72900E-06	563827.3	4183291.2	4.9	10.00	0.12	4.65
L0002593	0	0.72900E-06	563827.5	4183291.0	4.9	10.00	0.12	4.65
L0002594	0	0.72900E-06	563827.8	4183291.0	4.9	10.00	0.12	4.65
L0002595	0	0.72900E-06	563828.0	4183290.8	4.9	10.00	0.12	4.65
L0002596	0	0.72900E-06	563828.2	4183290.8	4.9	10.00	0.12	4.65
L0002597	0	0.72900E-06	563828.4	4183290.5	4.9	10.00	0.12	4.65
L0002598	0	0.72900E-06	563828.6	4183290.5	4.9	10.00	0.12	4.65
L0002599	0	0.72900E-06	563828.9	4183290.2	4.9	10.00	0.12	4.65
L0002600	0	0.72900E-06	563829.1	4183290.2	4.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002601	0	0.72900E-06	563829.3	4183290.0	5.0	10.00	0.12	4.65	
L0002602	0	0.72900E-06	563829.5	4183290.0	5.0	10.00	0.12	4.65	
L0002603	0	0.72900E-06	563829.8	4183290.0	5.0	10.00	0.12	4.65	
L0002604	0	0.72900E-06	563830.0	4183289.8	5.0	10.00	0.12	4.65	
L0002605	0	0.72900E-06	563830.2	4183289.8	5.0	10.00	0.12	4.65	
L0002606	0	0.72900E-06	563830.4	4183289.5	5.0	10.00	0.12	4.65	
L0002607	0	0.72900E-06	563830.6	4183289.5	5.0	10.00	0.12	4.65	
L0002608	0	0.72900E-06	563830.9	4183289.2	5.0	10.00	0.12	4.65	
L0002609	0	0.72900E-06	563831.1	4183289.2	5.0	10.00	0.12	4.65	
L0002610	0	0.72900E-06	563831.3	4183289.0	5.0	10.00	0.12	4.65	
L0002611	0	0.72900E-06	563831.6	4183289.0	5.0	10.00	0.12	4.65	
L0002612	0	0.72900E-06	563831.8	4183288.8	5.0	10.00	0.12	4.65	
L0002613	0	0.72900E-06	563832.0	4183288.8	5.0	10.00	0.12	4.65	
L0002614	0	0.72900E-06	563832.2	4183288.8	5.0	10.00	0.12	4.65	
L0002615	0	0.72900E-06	563832.4	4183288.5	5.0	10.00	0.12	4.65	
L0002616	0	0.72900E-06	563832.6	4183288.5	5.0	10.00	0.12	4.65	
L0002617	0	0.72900E-06	563832.9	4183288.3	5.0	10.00	0.12	4.65	
L0002618	0	0.72900E-06	563833.1	4183288.3	5.0	10.00	0.12	4.65	
L0002619	0	0.72900E-06	563833.3	4183288.0	5.0	10.00	0.12	4.65	
L0002620	0	0.72900E-06	563833.6	4183288.0	5.0	10.00	0.12	4.65	

L0002621	0	0.72900E-06	563833.8	4183287.8	5.0	10.00	0.12	4.65
L0002622	0	0.72900E-06	563834.0	4183287.8	5.0	10.00	0.12	4.65
L0002623	0	0.72900E-06	563834.2	4183287.8	5.0	10.00	0.12	4.65
L0002624	0	0.72900E-06	563834.4	4183287.5	5.0	10.00	0.12	4.65
L0002625	0	0.72900E-06	563834.7	4183287.5	4.9	10.00	0.12	4.65
L0002626	0	0.72900E-06	563834.9	4183287.3	4.9	10.00	0.12	4.65
L0002627	0	0.72900E-06	563835.1	4183287.3	4.9	10.00	0.12	4.65
L0002628	0	0.72900E-06	563835.3	4183287.0	4.9	10.00	0.12	4.65
L0002629	0	0.72900E-06	563835.6	4183287.0	4.9	10.00	0.12	4.65
L0002630	0	0.72900E-06	563835.8	4183286.8	4.9	10.00	0.12	4.65
L0002631	0	0.72900E-06	563836.0	4183286.8	4.9	10.00	0.12	4.65
L0002632	0	0.72900E-06	563836.2	4183286.5	4.9	10.00	0.12	4.65
L0002633	0	0.72900E-06	563836.4	4183286.5	4.9	10.00	0.12	4.65
L0002634	0	0.72900E-06	563836.7	4183286.5	4.9	10.00	0.12	4.65
L0002635	0	0.72900E-06	563836.9	4183286.2	4.9	10.00	0.12	4.65
L0002636	0	0.72900E-06	563837.1	4183286.2	4.9	10.00	0.12	4.65
L0002637	0	0.72900E-06	563837.3	4183286.0	4.9	10.00	0.12	4.65
L0002638	0	0.72900E-06	563837.6	4183286.0	4.9	10.00	0.12	4.65
L0002639	0	0.72900E-06	563837.8	4183285.8	4.8	10.00	0.12	4.65
L0002640	0	0.72900E-06	563838.0	4183285.8	4.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002641	0	0.72900E-06	563838.2	4183285.5	4.8	10.00	0.12	4.65	
L0002642	0	0.72900E-06	563838.4	4183285.5	4.8	10.00	0.12	4.65	
L0002643	0	0.72900E-06	563838.7	4183285.2	4.8	10.00	0.12	4.65	
L0002644	0	0.72900E-06	563838.9	4183285.2	4.8	10.00	0.12	4.65	
L0002645	0	0.72900E-06	563839.1	4183285.2	4.8	10.00	0.12	4.65	
L0002646	0	0.72900E-06	563839.3	4183285.0	4.8	10.00	0.12	4.65	
L0002647	0	0.72900E-06	563839.6	4183285.0	4.8	10.00	0.12	4.65	
L0002648	0	0.72900E-06	563839.8	4183284.8	4.8	10.00	0.12	4.65	
L0002649	0	0.72900E-06	563840.0	4183284.8	4.8	10.00	0.12	4.65	
L0002650	0	0.72900E-06	563840.2	4183284.5	4.8	10.00	0.12	4.65	
L0002651	0	0.72900E-06	563840.4	4183284.5	4.8	10.00	0.12	4.65	
L0002652	0	0.72900E-06	563840.7	4183284.2	4.7	10.00	0.12	4.65	
L0002653	0	0.72900E-06	563840.9	4183284.2	4.7	10.00	0.12	4.65	
L0002654	0	0.72900E-06	563841.1	4183284.0	4.7	10.00	0.12	4.65	
L0002655	0	0.72900E-06	563841.4	4183284.0	4.7	10.00	0.12	4.65	
L0002656	0	0.72900E-06	563841.6	4183284.0	4.7	10.00	0.12	4.65	
L0002657	0	0.72900E-06	563841.8	4183283.8	4.7	10.00	0.12	4.65	
L0002658	0	0.72900E-06	563842.0	4183283.8	4.7	10.00	0.12	4.65	
L0002659	0	0.72900E-06	563842.2	4183283.5	4.7	10.00	0.12	4.65	
L0002660	0	0.72900E-06	563842.4	4183283.5	4.7	10.00	0.12	4.65	

L0002661	0	0.72900E-06	563842.7	4183283.2	4.7	10.00	0.12	4.65
L0002662	0	0.72900E-06	563842.9	4183283.2	4.7	10.00	0.12	4.65
L0002663	0	0.72900E-06	563843.1	4183283.0	4.7	10.00	0.12	4.65
L0002664	0	0.72900E-06	563843.4	4183283.0	4.7	10.00	0.12	4.65
L0002665	0	0.72900E-06	563843.6	4183283.0	4.7	10.00	0.12	4.65
L0002666	0	0.72900E-06	563843.8	4183282.8	4.7	10.00	0.12	4.65
L0002667	0	0.72900E-06	563844.0	4183282.8	4.7	10.00	0.12	4.65
L0002668	0	0.72900E-06	563844.2	4183282.5	4.7	10.00	0.12	4.65
L0002669	0	0.72900E-06	563844.5	4183282.5	4.7	10.00	0.12	4.65
L0002670	0	0.72900E-06	563844.7	4183282.2	4.7	10.00	0.12	4.65
L0002671	0	0.72900E-06	563844.9	4183282.2	4.7	10.00	0.12	4.65
L0002672	0	0.72900E-06	563845.1	4183282.0	4.7	10.00	0.12	4.65
L0002673	0	0.72900E-06	563845.4	4183282.0	4.7	10.00	0.12	4.65
L0002674	0	0.72900E-06	563845.6	4183281.8	4.7	10.00	0.12	4.65
L0002675	0	0.72900E-06	563845.8	4183281.8	4.7	10.00	0.12	4.65
L0002676	0	0.72900E-06	563846.0	4183281.8	4.7	10.00	0.12	4.65
L0002677	0	0.72900E-06	563846.2	4183281.5	4.7	10.00	0.12	4.65
L0002678	0	0.72900E-06	563846.5	4183281.5	4.7	10.00	0.12	4.65
L0002679	0	0.72900E-06	563846.7	4183281.3	4.6	10.00	0.12	4.65
L0002680	0	0.72900E-06	563846.9	4183281.3	4.7	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002681	0	0.72900E-06	563847.1	4183281.0	4.6	10.00	0.12	4.65	
L0002682	0	0.72900E-06	563847.4	4183281.0	4.6	10.00	0.12	4.65	
L0002683	0	0.72900E-06	563847.6	4183280.8	4.6	10.00	0.12	4.65	
L0002684	0	0.72900E-06	563847.8	4183280.8	4.6	10.00	0.12	4.65	
L0002685	0	0.72900E-06	563848.1	4183280.5	4.6	10.00	0.12	4.65	
L0002686	0	0.72900E-06	563848.2	4183280.5	4.6	10.00	0.12	4.65	
L0002687	0	0.72900E-06	563848.5	4183280.5	4.6	10.00	0.12	4.65	
L0002688	0	0.72900E-06	563848.7	4183280.2	4.6	10.00	0.12	4.65	
L0002689	0	0.72900E-06	563848.9	4183280.2	4.6	10.00	0.12	4.65	
L0002690	0	0.72900E-06	563849.1	4183280.0	4.6	10.00	0.12	4.65	
L0002691	0	0.72900E-06	563849.4	4183280.0	4.6	10.00	0.12	4.65	
L0002692	0	0.72900E-06	563849.6	4183279.8	4.6	10.00	0.12	4.65	
L0002693	0	0.72900E-06	563849.8	4183279.8	4.6	10.00	0.12	4.65	
L0002694	0	0.72900E-06	563850.1	4183279.5	4.6	10.00	0.12	4.65	
L0002695	0	0.72900E-06	563850.3	4183279.5	4.6	10.00	0.12	4.65	
L0002696	0	0.72900E-06	563850.5	4183279.2	4.6	10.00	0.12	4.65	
L0002697	0	0.72900E-06	563850.7	4183279.2	4.6	10.00	0.12	4.65	
L0002698	0	0.72900E-06	563850.9	4183279.2	4.6	10.00	0.12	4.65	
L0002699	0	0.72900E-06	563851.2	4183279.0	4.6	10.00	0.12	4.65	
L0002700	0	0.72900E-06	563851.4	4183279.0	4.6	10.00	0.12	4.65	

L0002701	0	0.72900E-06	563851.6	4183278.8	4.6	10.00	0.12	4.65
L0002702	0	0.72900E-06	563851.8	4183278.8	4.6	10.00	0.12	4.65
L0002703	0	0.72900E-06	563852.1	4183278.5	4.6	10.00	0.12	4.65
L0002704	0	0.72900E-06	563852.2	4183278.5	4.6	10.00	0.12	4.65
L0002705	0	0.72900E-06	563852.5	4183278.2	4.6	10.00	0.12	4.65
L0002706	0	0.72900E-06	563852.8	4183278.2	4.6	10.00	0.12	4.65
L0002707	0	0.72900E-06	563852.9	4183278.2	4.6	10.00	0.12	4.65
L0002708	0	0.72900E-06	563853.2	4183278.0	4.5	10.00	0.12	4.65
L0002709	0	0.72900E-06	563853.4	4183278.0	4.5	10.00	0.12	4.65
L0002710	0	0.72900E-06	563853.6	4183277.8	4.5	10.00	0.12	4.65
L0002711	0	0.72900E-06	563853.8	4183277.8	4.5	10.00	0.12	4.65
L0002712	0	0.72900E-06	563854.1	4183277.5	4.5	10.00	0.12	4.65
L0002713	0	0.72900E-06	563854.3	4183277.5	4.5	10.00	0.12	4.65
L0002714	0	0.72900E-06	563854.5	4183277.2	4.4	10.00	0.12	4.65
L0002715	0	0.72900E-06	563854.8	4183277.2	4.4	10.00	0.12	4.65
L0002716	0	0.72900E-06	563854.9	4183277.0	4.4	10.00	0.12	4.65
L0002717	0	0.72900E-06	563855.2	4183277.0	4.4	10.00	0.12	4.65
L0002718	0	0.72900E-06	563855.4	4183277.0	4.4	10.00	0.12	4.65
L0002719	0	0.72900E-06	563855.6	4183276.8	4.4	10.00	0.12	4.65
L0002720	0	0.72900E-06	563855.8	4183276.8	4.4	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002721	0	0.72900E-06	563856.1	4183276.5	4.0	10.00	0.12	4.65	
L0002722	0	0.72900E-06	563856.3	4183276.5	4.0	10.00	0.12	4.65	
L0002723	0	0.72900E-06	563856.5	4183276.2	4.0	10.00	0.12	4.65	
L0002724	0	0.72900E-06	563856.8	4183276.2	4.0	10.00	0.12	4.65	
L0002725	0	0.72900E-06	563856.9	4183276.0	3.9	10.00	0.12	4.65	
L0002726	0	0.72900E-06	563857.2	4183276.0	3.9	10.00	0.12	4.65	
L0002727	0	0.72900E-06	563857.4	4183275.8	3.8	10.00	0.12	4.65	
L0002728	0	0.72900E-06	563857.6	4183275.8	3.8	10.00	0.12	4.65	
L0002729	0	0.72900E-06	563857.9	4183275.8	3.8	10.00	0.12	4.65	
L0002730	0	0.72900E-06	563858.1	4183275.5	3.8	10.00	0.12	4.65	
L0002731	0	0.72900E-06	563858.3	4183275.5	3.7	10.00	0.12	4.65	
L0002732	0	0.72900E-06	563858.5	4183275.3	3.7	10.00	0.12	4.65	
L0002733	0	0.72900E-06	563858.8	4183275.3	3.7	10.00	0.12	4.65	
L0002734	0	0.72900E-06	563858.9	4183275.0	3.6	10.00	0.12	4.65	
L0002735	0	0.72900E-06	563859.2	4183275.0	3.6	10.00	0.12	4.65	
L0002736	0	0.72900E-06	563859.4	4183274.8	3.5	10.00	0.12	4.65	
L0002737	0	0.72900E-06	563859.6	4183274.8	3.5	10.00	0.12	4.65	
L0002738	0	0.72900E-06	563859.9	4183274.8	3.4	10.00	0.12	4.65	
L0002739	0	0.72900E-06	563860.1	4183274.5	3.4	10.00	0.12	4.65	
L0002740	0	0.72900E-06	563860.3	4183274.5	3.4	10.00	0.12	4.65	

L0002741	0	0.72900E-06	563860.5	4183274.2	3.3	10.00	0.12	4.65
L0002742	0	0.72900E-06	563860.8	4183274.2	3.3	10.00	0.12	4.65
L0002743	0	0.72900E-06	563861.0	4183274.0	3.2	10.00	0.12	4.65
L0002744	0	0.72900E-06	563861.2	4183274.0	3.2	10.00	0.12	4.65
L0002745	0	0.72900E-06	563861.4	4183273.8	3.2	10.00	0.12	4.65
L0002746	0	0.72900E-06	563861.6	4183273.8	3.1	10.00	0.12	4.65
L0002747	0	0.72900E-06	563861.9	4183273.5	3.1	10.00	0.12	4.65
L0002748	0	0.72900E-06	563862.1	4183273.5	3.1	10.00	0.12	4.65
L0002749	0	0.72900E-06	563862.3	4183273.5	3.0	10.00	0.12	4.65
L0002750	0	0.72900E-06	563862.6	4183273.2	3.0	10.00	0.12	4.65
L0002751	0	0.72900E-06	563862.8	4183273.2	2.9	10.00	0.12	4.65
L0002752	0	0.72900E-06	563863.0	4183273.0	2.9	10.00	0.12	4.65
L0002753	0	0.72900E-06	563863.2	4183273.0	2.9	10.00	0.12	4.65
L0002754	0	0.72900E-06	563863.4	4183272.8	2.8	10.00	0.12	4.65
L0002755	0	0.72900E-06	563863.6	4183272.8	2.8	10.00	0.12	4.65
L0002756	0	0.72900E-06	563863.9	4183272.5	2.7	10.00	0.12	4.65
L0002757	0	0.72900E-06	563864.1	4183272.5	2.7	10.00	0.12	4.65
L0002758	0	0.72900E-06	563864.3	4183272.2	2.6	10.00	0.12	4.65
L0002759	0	0.72900E-06	563864.6	4183272.2	2.6	10.00	0.12	4.65
L0002760	0	0.72900E-06	563864.8	4183272.2	2.6	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002761	0	0.72900E-06	563865.0	4183272.0	2.5	10.00	0.12	4.65	
L0002762	0	0.72900E-06	563865.2	4183272.0	2.5	10.00	0.12	4.65	
L0002763	0	0.72900E-06	563865.4	4183271.8	1.7	10.00	0.12	4.65	
L0002764	0	0.72900E-06	563865.6	4183271.8	1.7	10.00	0.12	4.65	
L0002765	0	0.72900E-06	563865.9	4183271.5	1.7	10.00	0.12	4.65	
L0002766	0	0.72900E-06	563866.1	4183271.5	1.7	10.00	0.12	4.65	
L0002767	0	0.72900E-06	563866.3	4183271.2	1.7	10.00	0.12	4.65	
L0002768	0	0.72900E-06	563866.6	4183271.2	1.7	10.00	0.12	4.65	
L0002769	0	0.72900E-06	563866.8	4183271.0	1.6	10.00	0.12	4.65	
L0002770	0	0.72900E-06	563867.0	4183271.0	1.6	10.00	0.12	4.65	
L0002771	0	0.72900E-06	563867.2	4183271.0	1.6	10.00	0.12	4.65	
L0002772	0	0.72900E-06	563867.4	4183270.8	1.6	10.00	0.12	4.65	
L0002773	0	0.72900E-06	563867.7	4183270.8	1.6	10.00	0.12	4.65	
L0002774	0	0.72900E-06	563867.9	4183270.5	1.6	10.00	0.12	4.65	
L0002775	0	0.72900E-06	563868.1	4183270.5	1.5	10.00	0.12	4.65	
L0002776	0	0.72900E-06	563868.3	4183270.2	1.5	10.00	0.12	4.65	
L0002777	0	0.72900E-06	563868.6	4183270.2	1.5	10.00	0.12	4.65	
L0002778	0	0.72900E-06	563868.8	4183270.0	1.5	10.00	0.12	4.65	
L0002779	0	0.72900E-06	563869.0	4183270.0	1.5	10.00	0.12	4.65	
L0002780	0	0.72900E-06	563869.3	4183270.0	1.5	10.00	0.12	4.65	

L0002781	0	0.72900E-06	563869.4	4183269.8	1.4	10.00	0.12	4.65
L0002782	0	0.72900E-06	563869.7	4183269.8	1.4	10.00	0.12	4.65
L0002783	0	0.72900E-06	563869.9	4183269.5	1.4	10.00	0.12	4.65
L0002784	0	0.72900E-06	563870.1	4183269.5	1.4	10.00	0.12	4.65
L0002785	0	0.72900E-06	563870.3	4183269.3	1.4	10.00	0.12	4.65
L0002786	0	0.72900E-06	563870.6	4183269.3	1.4	10.00	0.12	4.65
L0002787	0	0.72900E-06	563870.8	4183269.0	1.3	10.00	0.12	4.65
L0002788	0	0.72900E-06	563871.0	4183269.0	1.3	10.00	0.12	4.65
L0002789	0	0.72900E-06	563871.2	4183268.8	1.3	10.00	0.12	4.65
L0002790	0	0.72900E-06	563871.4	4183268.8	1.3	10.00	0.12	4.65
L0002791	0	0.72900E-06	563871.7	4183268.8	1.2	10.00	0.12	4.65
L0002792	0	0.72900E-06	563871.9	4183268.5	1.2	10.00	0.12	4.65
L0002793	0	0.72900E-06	563872.1	4183268.5	1.2	10.00	0.12	4.65
L0002794	0	0.72900E-06	563872.4	4183268.3	1.2	10.00	0.12	4.65
L0002795	0	0.72900E-06	563872.6	4183268.3	1.1	10.00	0.12	4.65
L0002796	0	0.72900E-06	563872.8	4183268.0	1.1	10.00	0.12	4.65
L0002797	0	0.72900E-06	563873.0	4183268.0	1.1	10.00	0.12	4.65
L0002798	0	0.72900E-06	563873.3	4183267.8	1.1	10.00	0.12	4.65
L0002799	0	0.72900E-06	563873.4	4183267.8	1.0	10.00	0.12	4.65
L0002800	0	0.72900E-06	563873.7	4183267.5	1.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002801	0	0.72900E-06	563873.9	4183267.5	1.0	10.00	0.12	4.65	
L0002802	0	0.72900E-06	563874.1	4183267.5	1.0	10.00	0.12	4.65	
L0002803	0	0.72900E-06	563874.4	4183267.2	0.9	10.00	0.12	4.65	
L0002804	0	0.72900E-06	563874.6	4183267.2	0.9	10.00	0.12	4.65	
L0002805	0	0.72900E-06	563874.8	4183267.0	0.9	10.00	0.12	4.65	
L0002806	0	0.72900E-06	563875.0	4183267.0	0.9	10.00	0.12	4.65	
L0002807	0	0.72900E-06	563875.2	4183266.8	0.9	10.00	0.12	4.65	
L0002808	0	0.72900E-06	563875.4	4183266.8	0.8	10.00	0.12	4.65	
L0002809	0	0.72900E-06	563875.7	4183266.5	0.8	10.00	0.12	4.65	
L0002810	0	0.72900E-06	563875.9	4183266.5	0.8	10.00	0.12	4.65	
L0002811	0	0.72900E-06	563876.1	4183266.2	0.8	10.00	0.12	4.65	
L0002812	0	0.72900E-06	563876.4	4183266.2	0.7	10.00	0.12	4.65	
L0002813	0	0.72900E-06	563876.6	4183266.2	0.7	10.00	0.12	4.65	
L0002814	0	0.72900E-06	563876.8	4183266.0	0.7	10.00	0.12	4.65	
L0002815	0	0.72900E-06	563877.0	4183266.0	0.7	10.00	0.12	4.65	
L0002816	0	0.72900E-06	563877.2	4183265.8	0.7	10.00	0.12	4.65	
L0002817	0	0.72900E-06	563877.5	4183265.8	0.6	10.00	0.12	4.65	
L0002818	0	0.72900E-06	563877.7	4183265.5	0.6	10.00	0.12	4.65	
L0002819	0	0.72900E-06	563877.9	4183265.5	0.6	10.00	0.12	4.65	
L0002820	0	0.72900E-06	563878.1	4183265.2	0.6	10.00	0.12	4.65	

L0002821	0	0.72900E-06	563878.4	4183265.2	0.6	10.00	0.12	4.65
L0002822	0	0.72900E-06	563878.6	4183265.2	0.6	10.00	0.12	4.65
L0002823	0	0.72900E-06	563878.8	4183265.0	0.5	10.00	0.12	4.65
L0002824	0	0.72900E-06	563879.1	4183265.0	0.5	10.00	0.12	4.65
L0002825	0	0.72900E-06	563879.2	4183264.8	0.5	10.00	0.12	4.65
L0002826	0	0.72900E-06	563879.5	4183264.8	0.5	10.00	0.12	4.65
L0002827	0	0.72900E-06	563879.7	4183264.5	0.5	10.00	0.12	4.65
L0002828	0	0.72900E-06	563879.9	4183264.5	0.5	10.00	0.12	4.65
L0002829	0	0.72900E-06	563880.1	4183264.2	0.0	10.00	0.12	4.65
L0002830	0	0.72900E-06	563880.4	4183264.2	0.0	10.00	0.12	4.65
L0002831	0	0.72900E-06	563880.6	4183264.0	0.0	10.00	0.12	4.65
L0002832	0	0.72900E-06	563880.8	4183264.0	0.0	10.00	0.12	4.65
L0002833	0	0.72900E-06	563881.1	4183264.0	0.0	10.00	0.12	4.65
L0002834	0	0.72900E-06	563881.2	4183263.8	0.0	10.00	0.12	4.65
L0002835	0	0.72900E-06	563881.5	4183263.8	0.0	10.00	0.12	4.65
L0002836	0	0.72900E-06	563881.7	4183263.5	0.0	10.00	0.12	4.65
L0002837	0	0.72900E-06	563881.9	4183263.5	0.0	10.00	0.12	4.65
L0002838	0	0.72900E-06	563882.1	4183263.2	0.0	10.00	0.12	4.65
L0002839	0	0.72900E-06	563882.4	4183263.2	0.0	10.00	0.12	4.65
L0002840	0	0.72900E-06	563882.6	4183263.0	0.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0002841	0	0.72900E-06	563882.8	4183263.0	0.0	10.00	0.12	4.65	
L0002842	0	0.72900E-06	563883.1	4183262.8	0.0	10.00	0.12	4.65	
L0002843	0	0.72900E-06	563883.2	4183262.8	0.0	10.00	0.12	4.65	
L0002844	0	0.72900E-06	563883.5	4183262.8	0.0	10.00	0.12	4.65	
L0002845	0	0.72900E-06	563883.7	4183262.5	0.0	10.00	0.12	4.65	
L0002846	0	0.72900E-06	563883.9	4183262.5	0.0	10.00	0.12	4.65	
L0002847	0	0.72900E-06	563884.2	4183262.3	0.0	10.00	0.12	4.65	
L0002848	0	0.72900E-06	563884.4	4183262.3	0.0	10.00	0.12	4.65	
L0002849	0	0.72900E-06	563884.6	4183262.0	0.0	10.00	0.12	4.65	
L0002850	0	0.72900E-06	563884.8	4183262.0	-0.1	10.00	0.12	4.65	
L0002851	0	0.72900E-06	563885.1	4183261.8	-0.1	10.00	0.12	4.65	
L0002852	0	0.72900E-06	563885.3	4183261.8	-0.1	10.00	0.12	4.65	
L0002853	0	0.72900E-06	563885.5	4183261.8	-0.1	10.00	0.12	4.65	
L0002854	0	0.72900E-06	563885.8	4183261.5	-0.1	10.00	0.12	4.65	
L0002855	0	0.72900E-06	563885.9	4183261.5	-0.1	10.00	0.12	4.65	
L0002856	0	0.72900E-06	563886.2	4183261.2	-0.1	10.00	0.12	4.65	
L0002857	0	0.72900E-06	563886.4	4183261.2	-0.1	10.00	0.12	4.65	
L0002858	0	0.72900E-06	563886.6	4183261.0	-0.1	10.00	0.12	4.65	
L0002859	0	0.72900E-06	563886.8	4183261.0	-0.1	10.00	0.12	4.65	
L0002860	0	0.72900E-06	563887.1	4183260.8	-0.1	10.00	0.12	4.65	

L0002861	0	0.72900E-06	563887.3	4183260.8	-0.1	10.00	0.12	4.65
L0002862	0	0.72900E-06	563887.5	4183260.5	-0.1	10.00	0.12	4.65
L0002863	0	0.72900E-06	563887.8	4183260.5	-0.1	10.00	0.12	4.65
L0002864	0	0.72900E-06	563887.9	4183260.5	-0.1	10.00	0.12	4.65
L0002865	0	0.72900E-06	563888.2	4183260.2	-0.1	10.00	0.12	4.65
L0002866	0	0.72900E-06	563888.4	4183260.2	-0.1	10.00	0.12	4.65
L0002867	0	0.72900E-06	563888.6	4183260.0	-0.1	10.00	0.12	4.65
L0002868	0	0.72900E-06	563888.9	4183260.0	-0.2	10.00	0.12	4.65
L0002869	0	0.72900E-06	563889.1	4183259.8	-0.2	10.00	0.12	4.65
L0002870	0	0.72900E-06	563889.3	4183259.8	-0.2	10.00	0.12	4.65
L0002871	0	0.72900E-06	563889.5	4183259.5	-0.2	10.00	0.12	4.65
L0002872	0	0.72900E-06	563889.8	4183259.5	-0.2	10.00	0.12	4.65
L0002873	0	0.72900E-06	563889.9	4183259.2	-0.2	10.00	0.12	4.65
L0002874	0	0.72900E-06	563890.2	4183259.2	-0.2	10.00	0.12	4.65
L0002875	0	0.72900E-06	563890.4	4183259.2	-0.2	10.00	0.12	4.65
L0002876	0	0.72900E-06	563890.6	4183259.0	-0.2	10.00	0.12	4.65
L0002877	0	0.72900E-06	563890.9	4183259.0	-0.3	10.00	0.12	4.65
L0002878	0	0.72900E-06	563891.1	4183258.8	-0.3	10.00	0.12	4.65
L0002879	0	0.72900E-06	563891.3	4183258.8	-0.3	10.00	0.12	4.65
L0002880	0	0.72900E-06	563891.5	4183258.5	-0.3	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002881	0	0.72900E-06	563891.8	4183258.5	-0.3	10.00	0.12	4.65	
L0002882	0	0.72900E-06	563891.9	4183258.2	-0.3	10.00	0.12	4.65	
L0002883	0	0.72900E-06	563892.2	4183258.2	-0.3	10.00	0.12	4.65	
L0002884	0	0.72900E-06	563892.4	4183258.0	-0.4	10.00	0.12	4.65	
L0002885	0	0.72900E-06	563892.6	4183258.0	-0.4	10.00	0.12	4.65	
L0002886	0	0.72900E-06	563892.9	4183258.0	-0.4	10.00	0.12	4.65	
L0002887	0	0.72900E-06	563893.1	4183257.8	-0.4	10.00	0.12	4.65	
L0002888	0	0.72900E-06	563893.3	4183257.8	-0.4	10.00	0.12	4.65	
L0002889	0	0.72900E-06	563893.5	4183257.5	-0.4	10.00	0.12	4.65	
L0002890	0	0.72900E-06	563893.8	4183257.5	-0.5	10.00	0.12	4.65	
L0002891	0	0.72900E-06	563894.0	4183257.2	-0.5	10.00	0.12	4.65	
L0002892	0	0.72900E-06	563894.2	4183257.2	-0.5	10.00	0.12	4.65	
L0002893	0	0.72900E-06	563894.4	4183257.0	-0.5	10.00	0.12	4.65	
L0002894	0	0.72900E-06	563894.6	4183257.0	-0.5	10.00	0.12	4.65	
L0002895	0	0.72900E-06	563894.9	4183257.0	-0.6	10.00	0.12	4.65	
L0002896	0	0.72900E-06	563895.1	4183256.8	-0.6	10.00	0.12	4.65	
L0002897	0	0.72900E-06	563895.3	4183256.8	-0.6	10.00	0.12	4.65	
L0002898	0	0.72900E-06	563895.6	4183256.5	-0.6	10.00	0.12	4.65	
L0002899	0	0.72900E-06	563895.8	4183256.5	-0.6	10.00	0.12	4.65	
L0002900	0	0.72900E-06	563896.0	4183256.3	-0.6	10.00	0.12	4.65	

L0002901	0	0.72900E-06	563896.2	4183256.3	-0.7	10.00	0.12	4.65
L0002902	0	0.72900E-06	563896.4	4183256.0	-0.7	10.00	0.12	4.65
L0002903	0	0.72900E-06	563896.6	4183256.0	-0.7	10.00	0.12	4.65
L0002904	0	0.72900E-06	563896.9	4183255.8	-0.7	10.00	0.12	4.65
L0002905	0	0.72900E-06	563897.1	4183255.8	-0.7	10.00	0.12	4.65
L0002906	0	0.72900E-06	563897.3	4183255.8	-0.7	10.00	0.12	4.65
L0002907	0	0.72900E-06	563897.6	4183255.5	-0.7	10.00	0.12	4.65
L0002908	0	0.72900E-06	563897.8	4183255.5	-0.8	10.00	0.12	4.65
L0002909	0	0.72900E-06	563898.0	4183255.2	-0.8	10.00	0.12	4.65
L0002910	0	0.72900E-06	563898.2	4183255.2	-0.8	10.00	0.12	4.65
L0002911	0	0.72900E-06	563898.4	4183255.0	-0.8	10.00	0.12	4.65
L0002912	0	0.72900E-06	563898.6	4183255.0	-0.8	10.00	0.12	4.65
L0002913	0	0.72900E-06	563898.9	4183254.8	-0.8	10.00	0.12	4.65
L0002914	0	0.72900E-06	563899.1	4183254.8	-0.8	10.00	0.12	4.65
L0002915	0	0.72900E-06	563899.3	4183254.5	-0.8	10.00	0.12	4.65
L0002916	0	0.72900E-06	563899.6	4183254.5	-0.9	10.00	0.12	4.65
L0002917	0	0.72900E-06	563899.8	4183254.5	-0.9	10.00	0.12	4.65
L0002918	0	0.72900E-06	563900.0	4183254.2	-0.9	10.00	0.12	4.65
L0002919	0	0.72900E-06	563900.2	4183254.2	-0.9	10.00	0.12	4.65
L0002920	0	0.72900E-06	563900.4	4183254.0	-0.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002921	0	0.72900E-06	563900.7	4183254.0	-0.9	10.00	0.12	4.65	
L0002922	0	0.72900E-06	563900.9	4183253.8	-0.9	10.00	0.12	4.65	
L0002923	0	0.72900E-06	563901.1	4183253.8	-0.9	10.00	0.12	4.65	
L0002924	0	0.72900E-06	563901.3	4183253.5	-0.9	10.00	0.12	4.65	
L0002925	0	0.72900E-06	563901.6	4183253.5	-0.9	10.00	0.12	4.65	
L0002926	0	0.72900E-06	563901.8	4183253.2	-0.9	10.00	0.12	4.65	
L0002927	0	0.72900E-06	563902.0	4183253.2	-0.9	10.00	0.12	4.65	
L0002928	0	0.72900E-06	563902.2	4183253.2	-0.9	10.00	0.12	4.65	
L0002929	0	0.72900E-06	563902.4	4183253.0	-0.9	10.00	0.12	4.65	
L0002930	0	0.72900E-06	563902.7	4183253.0	-0.9	10.00	0.12	4.65	
L0002931	0	0.72900E-06	563902.9	4183252.8	-0.9	10.00	0.12	4.65	
L0002932	0	0.72900E-06	563903.1	4183252.8	-0.9	10.00	0.12	4.65	
L0002933	0	0.72900E-06	563903.3	4183252.5	-0.9	10.00	0.12	4.65	
L0002934	0	0.72900E-06	563903.6	4183252.5	-0.9	10.00	0.12	4.65	
L0002935	0	0.72900E-06	563903.8	4183252.2	-0.9	10.00	0.12	4.65	
L0002936	0	0.72900E-06	563904.0	4183252.2	-0.9	10.00	0.12	4.65	
L0002937	0	0.72900E-06	563904.3	4183252.2	-0.9	10.00	0.12	4.65	
L0002938	0	0.72900E-06	563904.4	4183252.0	-0.8	10.00	0.12	4.65	
L0002939	0	0.72900E-06	563904.7	4183252.0	-0.8	10.00	0.12	4.65	
L0002940	0	0.72900E-06	563904.9	4183251.8	-0.8	10.00	0.12	4.65	

L0002941	0	0.72900E-06	563905.1	4183251.8	-0.8	10.00	0.12	4.65
L0002942	0	0.72900E-06	563905.4	4183251.5	-0.8	10.00	0.12	4.65
L0002943	0	0.72900E-06	563905.6	4183251.5	-0.8	10.00	0.12	4.65
L0002944	0	0.72900E-06	563905.8	4183251.2	-0.8	10.00	0.12	4.65
L0002945	0	0.72900E-06	563906.0	4183251.2	-0.7	10.00	0.12	4.65
L0002946	0	0.72900E-06	563906.2	4183251.0	-0.7	10.00	0.12	4.65
L0002947	0	0.72900E-06	563906.4	4183251.0	-0.7	10.00	0.12	4.65
L0002948	0	0.72900E-06	563906.7	4183251.0	-0.7	10.00	0.12	4.65
L0002949	0	0.72900E-06	563906.9	4183250.8	-0.7	10.00	0.12	4.65
L0002950	0	0.72900E-06	563907.1	4183250.8	-0.7	10.00	0.12	4.65
L0002951	0	0.72900E-06	563907.4	4183250.5	-0.6	10.00	0.12	4.65
L0002952	0	0.72900E-06	563907.6	4183250.5	-0.6	10.00	0.12	4.65
L0002953	0	0.72900E-06	563907.8	4183250.3	-0.6	10.00	0.12	4.65
L0002954	0	0.72900E-06	563908.0	4183250.3	-0.6	10.00	0.12	4.65
L0002955	0	0.72900E-06	563908.2	4183250.0	-0.5	10.00	0.12	4.65
L0002956	0	0.72900E-06	563908.4	4183250.0	-0.5	10.00	0.12	4.65
L0002957	0	0.72900E-06	563908.7	4183249.8	-0.5	10.00	0.12	4.65
L0002958	0	0.72900E-06	563908.9	4183249.8	-0.5	10.00	0.12	4.65
L0002959	0	0.72900E-06	563909.1	4183249.8	-0.4	10.00	0.12	4.65
L0002960	0	0.72900E-06	563909.4	4183249.5	-0.4	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0002961	0	0.72900E-06	563909.6	4183249.5	-0.4	10.00	0.12	4.65	
L0002962	0	0.72900E-06	563909.8	4183249.3	-0.3	10.00	0.12	4.65	
L0002963	0	0.72900E-06	563910.0	4183249.3	-0.3	10.00	0.12	4.65	
L0002964	0	0.72900E-06	563910.2	4183249.0	-0.3	10.00	0.12	4.65	
L0002965	0	0.72900E-06	563910.5	4183249.0	-0.3	10.00	0.12	4.65	
L0002966	0	0.72900E-06	563910.7	4183248.8	-0.2	10.00	0.12	4.65	
L0002967	0	0.72900E-06	563910.9	4183248.8	-0.2	10.00	0.12	4.65	
L0002968	0	0.72900E-06	563911.1	4183248.8	-0.2	10.00	0.12	4.65	
L0002969	0	0.72900E-06	563911.4	4183248.5	-0.2	10.00	0.12	4.65	
L0002970	0	0.72900E-06	563911.6	4183248.5	-0.1	10.00	0.12	4.65	
L0002971	0	0.72900E-06	563911.8	4183248.2	-0.1	10.00	0.12	4.65	
L0002972	0	0.72900E-06	563912.1	4183248.2	-0.1	10.00	0.12	4.65	
L0002973	0	0.72900E-06	563912.2	4183248.0	-0.1	10.00	0.12	4.65	
L0002974	0	0.72900E-06	563912.5	4183248.0	0.0	10.00	0.12	4.65	
L0002975	0	0.72900E-06	563912.7	4183247.8	-0.2	10.00	0.12	4.65	
L0002976	0	0.72900E-06	563912.9	4183247.8	-0.2	10.00	0.12	4.65	
L0002977	0	0.72900E-06	563913.1	4183247.5	-0.2	10.00	0.12	4.65	
L0002978	0	0.72900E-06	563913.4	4183247.5	-0.2	10.00	0.12	4.65	
L0002979	0	0.72900E-06	563913.6	4183247.5	-0.2	10.00	0.12	4.65	
L0002980	0	0.72900E-06	563913.8	4183247.2	-0.1	10.00	0.12	4.65	

L0002981	0	0.72900E-06	563914.1	4183247.2	-0.1	10.00	0.12	4.65
L0002982	0	0.72900E-06	563914.2	4183247.0	-0.1	10.00	0.12	4.65
L0002983	0	0.72900E-06	563914.5	4183247.0	-0.1	10.00	0.12	4.65
L0002984	0	0.72900E-06	563914.7	4183246.8	0.0	10.00	0.12	4.65
L0002985	0	0.72900E-06	563914.9	4183246.8	0.0	10.00	0.12	4.65
L0002986	0	0.72900E-06	563915.1	4183246.5	0.0	10.00	0.12	4.65
L0002987	0	0.72900E-06	563915.4	4183246.5	0.0	10.00	0.12	4.65
L0002988	0	0.72900E-06	563915.6	4183246.2	0.1	10.00	0.12	4.65
L0002989	0	0.72900E-06	563915.8	4183246.2	0.1	10.00	0.12	4.65
L0002990	0	0.72900E-06	563916.1	4183246.2	0.1	10.00	0.12	4.65
L0002991	0	0.72900E-06	563916.2	4183246.0	0.1	10.00	0.12	4.65
L0002992	0	0.72900E-06	563916.5	4183246.0	0.1	10.00	0.12	4.65
L0002993	0	0.72900E-06	563916.7	4183245.8	0.2	10.00	0.12	4.65
L0002994	0	0.72900E-06	563916.9	4183245.8	0.2	10.00	0.12	4.65
L0002995	0	0.72900E-06	563917.2	4183245.5	0.2	10.00	0.12	4.65
L0002996	0	0.72900E-06	563917.4	4183245.5	0.2	10.00	0.12	4.65
L0002997	0	0.72900E-06	563917.6	4183245.2	0.2	10.00	0.12	4.65
L0002998	0	0.72900E-06	563917.8	4183245.2	0.2	10.00	0.12	4.65
L0002999	0	0.72900E-06	563918.1	4183245.0	0.3	10.00	0.12	4.65
L0003000	0	0.72900E-06	563918.2	4183245.0	0.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003001	0	0.72900E-06	563918.5	4183245.0	0.3	10.00	0.12	4.65	
L0003002	0	0.72900E-06	563918.8	4183244.8	0.3	10.00	0.12	4.65	
L0003003	0	0.72900E-06	563918.9	4183244.8	0.3	10.00	0.12	4.65	
L0003004	0	0.72900E-06	563919.2	4183244.5	0.4	10.00	0.12	4.65	
L0003005	0	0.72900E-06	563919.4	4183244.5	0.4	10.00	0.12	4.65	
L0003006	0	0.72900E-06	563919.6	4183244.2	0.4	10.00	0.12	4.65	
L0003007	0	0.72900E-06	563919.8	4183244.2	0.4	10.00	0.12	4.65	
L0003008	0	0.72900E-06	563920.1	4183244.0	0.4	10.00	0.12	4.65	
L0003009	0	0.72900E-06	563920.3	4183244.0	0.5	10.00	0.12	4.65	
L0003010	0	0.72900E-06	563920.5	4183244.0	0.5	10.00	0.12	4.65	
L0003011	0	0.72900E-06	563920.8	4183243.8	0.5	10.00	0.12	4.65	
L0003012	0	0.72900E-06	563920.9	4183243.8	0.5	10.00	0.12	4.65	
L0003013	0	0.72900E-06	563921.2	4183243.5	0.5	10.00	0.12	4.65	
L0003014	0	0.72900E-06	563921.4	4183243.5	0.5	10.00	0.12	4.65	
L0003015	0	0.72900E-06	563921.6	4183243.3	0.6	10.00	0.12	4.65	
L0003016	0	0.72900E-06	563921.9	4183243.3	0.6	10.00	0.12	4.65	
L0003017	0	0.72900E-06	563922.1	4183243.0	0.6	10.00	0.12	4.65	
L0003018	0	0.72900E-06	563922.3	4183243.0	0.6	10.00	0.12	4.65	
L0003019	0	0.72900E-06	563922.5	4183242.8	0.6	10.00	0.12	4.65	
L0003020	0	0.72900E-06	563922.8	4183242.8	0.6	10.00	0.12	4.65	

L0003021	0	0.72900E-06	563922.9	4183242.8	0.6	10.00	0.12	4.65
L0003022	0	0.72900E-06	563923.2	4183242.5	0.6	10.00	0.12	4.65
L0003023	0	0.72900E-06	563923.4	4183242.5	0.7	10.00	0.12	4.65
L0003024	0	0.72900E-06	563923.6	4183242.2	0.7	10.00	0.12	4.65
L0003025	0	0.72900E-06	563923.9	4183242.2	0.7	10.00	0.12	4.65
L0003026	0	0.72900E-06	563924.1	4183242.0	0.7	10.00	0.12	4.65
L0003027	0	0.72900E-06	563924.3	4183242.0	0.7	10.00	0.12	4.65
L0003028	0	0.72900E-06	563924.5	4183241.8	0.7	10.00	0.12	4.65
L0003029	0	0.72900E-06	563924.8	4183241.8	0.7	10.00	0.12	4.65
L0003030	0	0.72900E-06	563924.9	4183241.5	0.7	10.00	0.12	4.65
L0003031	0	0.72900E-06	563925.2	4183241.5	0.8	10.00	0.12	4.65
L0003032	0	0.72900E-06	563925.4	4183241.5	0.8	10.00	0.12	4.65
L0003033	0	0.72900E-06	563925.6	4183241.2	0.8	10.00	0.12	4.65
L0003034	0	0.72900E-06	563925.9	4183241.2	0.8	10.00	0.12	4.65
L0003035	0	0.72900E-06	563926.1	4183241.0	0.8	10.00	0.12	4.65
L0003036	0	0.72900E-06	563926.3	4183241.0	0.8	10.00	0.12	4.65
L0003037	0	0.72900E-06	563926.5	4183240.8	0.8	10.00	0.12	4.65
L0003038	0	0.72900E-06	563926.8	4183240.8	0.8	10.00	0.12	4.65
L0003039	0	0.72900E-06	563927.0	4183240.5	0.8	10.00	0.12	4.65
L0003040	0	0.72900E-06	563927.2	4183240.5	0.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0003041	0	0.72900E-06	563927.4	4183240.2	0.9	10.00	0.12	4.65	
L0003042	0	0.72900E-06	563927.6	4183240.2	0.9	10.00	0.12	4.65	
L0003043	0	0.72900E-06	563927.9	4183240.2	0.9	10.00	0.12	4.65	
L0003044	0	0.72900E-06	563928.1	4183240.0	1.1	10.00	0.12	4.65	
L0003045	0	0.72900E-06	563928.3	4183240.0	1.1	10.00	0.12	4.65	
L0003046	0	0.72900E-06	563928.6	4183239.8	1.1	10.00	0.12	4.65	
L0003047	0	0.72900E-06	563928.8	4183239.8	1.1	10.00	0.12	4.65	
L0003048	0	0.72900E-06	563929.0	4183239.5	1.1	10.00	0.12	4.65	
L0003049	0	0.72900E-06	563929.2	4183239.5	1.1	10.00	0.12	4.65	
L0003050	0	0.72900E-06	563929.4	4183239.2	1.1	10.00	0.12	4.65	
L0003051	0	0.72900E-06	563929.6	4183239.2	1.1	10.00	0.12	4.65	
L0003052	0	0.72900E-06	563929.9	4183239.2	1.1	10.00	0.12	4.65	
L0003053	0	0.72900E-06	563930.1	4183239.0	1.1	10.00	0.12	4.65	
L0003054	0	0.72900E-06	563930.3	4183239.0	1.1	10.00	0.12	4.65	
L0003055	0	0.72900E-06	563930.6	4183238.8	1.1	10.00	0.12	4.65	
L0003056	0	0.72900E-06	563930.8	4183238.8	1.1	10.00	0.12	4.65	
L0003057	0	0.72900E-06	563931.0	4183238.5	1.1	10.00	0.12	4.65	
L0003058	0	0.72900E-06	563931.2	4183238.5	1.1	10.00	0.12	4.65	
L0003059	0	0.72900E-06	563931.4	4183238.2	1.1	10.00	0.12	4.65	
L0003060	0	0.72900E-06	563931.7	4183238.2	1.1	10.00	0.12	4.65	

L0003061	0	0.72900E-06	563931.9	4183238.0	1.1	10.00	0.12	4.65
L0003062	0	0.72900E-06	563932.1	4183238.0	1.1	10.00	0.12	4.65
L0003063	0	0.72900E-06	563932.3	4183238.0	1.1	10.00	0.12	4.65
L0003064	0	0.72900E-06	563932.6	4183237.8	1.1	10.00	0.12	4.65
L0003065	0	0.72900E-06	563932.8	4183237.8	1.1	10.00	0.12	4.65
L0003066	0	0.72900E-06	563933.0	4183237.5	1.1	10.00	0.12	4.65
L0003067	0	0.72900E-06	563933.2	4183237.5	1.2	10.00	0.12	4.65
L0003068	0	0.72900E-06	563933.4	4183237.3	1.2	10.00	0.12	4.65
L0003069	0	0.72900E-06	563933.7	4183237.3	1.2	10.00	0.12	4.65
L0003070	0	0.72900E-06	563933.9	4183237.0	1.2	10.00	0.12	4.65
L0003071	0	0.72900E-06	563934.1	4183237.0	1.2	10.00	0.12	4.65
L0003072	0	0.72900E-06	563934.3	4183236.8	1.2	10.00	0.12	4.65
L0003073	0	0.72900E-06	563934.6	4183236.8	1.2	10.00	0.12	4.65
L0003074	0	0.72900E-06	563934.8	4183236.8	1.2	10.00	0.12	4.65
L0003075	0	0.72900E-06	563935.0	4183236.5	1.2	10.00	0.12	4.65
L0003076	0	0.72900E-06	563935.2	4183236.5	1.2	10.00	0.12	4.65
L0003077	0	0.72900E-06	563935.4	4183236.2	1.2	10.00	0.12	4.65
L0003078	0	0.72900E-06	563935.7	4183236.2	1.2	10.00	0.12	4.65
L0003079	0	0.72900E-06	563935.9	4183236.0	1.2	10.00	0.12	4.65
L0003080	0	0.72900E-06	563936.1	4183236.0	1.2	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003081	0	0.72900E-06	563936.3	4183235.8	1.2	10.00	0.12	4.65	
L0003082	0	0.72900E-06	563936.6	4183235.8	1.2	10.00	0.12	4.65	
L0003083	0	0.72900E-06	563936.8	4183235.8	1.2	10.00	0.12	4.65	
L0003084	0	0.72900E-06	563937.0	4183235.5	1.2	10.00	0.12	4.65	
L0003085	0	0.72900E-06	563937.2	4183235.5	1.2	10.00	0.12	4.65	
L0003086	0	0.72900E-06	563937.4	4183235.2	1.2	10.00	0.12	4.65	
L0003087	0	0.72900E-06	563937.7	4183235.2	1.3	10.00	0.12	4.65	
L0003088	0	0.72900E-06	563937.9	4183235.0	1.3	10.00	0.12	4.65	
L0003089	0	0.72900E-06	563938.1	4183235.0	1.3	10.00	0.12	4.65	
L0003090	0	0.72900E-06	563938.4	4183234.8	1.3	10.00	0.12	4.65	
L0003091	0	0.72900E-06	563938.6	4183234.8	1.3	10.00	0.12	4.65	
L0003092	0	0.72900E-06	563938.8	4183234.5	1.3	10.00	0.12	4.65	
L0003093	0	0.72900E-06	563939.0	4183234.5	1.3	10.00	0.12	4.65	
L0003094	0	0.72900E-06	563939.3	4183234.5	1.3	10.00	0.12	4.65	
L0003095	0	0.72900E-06	563939.4	4183234.2	1.3	10.00	0.12	4.65	
L0003096	0	0.72900E-06	563939.7	4183234.2	1.3	10.00	0.12	4.65	
L0003097	0	0.72900E-06	563939.9	4183234.0	1.4	10.00	0.12	4.65	
L0003098	0	0.72900E-06	563940.1	4183234.0	1.4	10.00	0.12	4.65	
L0003099	0	0.72900E-06	563940.4	4183233.8	1.4	10.00	0.12	4.65	
L0003100	0	0.72900E-06	563940.6	4183233.8	1.4	10.00	0.12	4.65	

L0003101	0	0.72900E-06	563940.8	4183233.5	1.4	10.00	0.12	4.65
L0003102	0	0.72900E-06	563941.0	4183233.5	1.4	10.00	0.12	4.65
L0003103	0	0.72900E-06	563941.2	4183233.2	1.4	10.00	0.12	4.65
L0003104	0	0.72900E-06	563941.5	4183233.2	1.4	10.00	0.12	4.65
L0003105	0	0.72900E-06	563941.7	4183233.2	1.5	10.00	0.12	4.65
L0003106	0	0.72900E-06	563941.9	4183233.0	1.5	10.00	0.12	4.65
L0003107	0	0.72900E-06	563942.1	4183233.0	1.5	10.00	0.12	4.65
L0003108	0	0.72900E-06	563942.4	4183232.8	1.5	10.00	0.12	4.65
L0003109	0	0.72900E-06	563942.6	4183232.8	1.5	10.00	0.12	4.65
L0003110	0	0.72900E-06	563942.8	4183232.5	1.5	10.00	0.12	4.65
L0003111	0	0.72900E-06	563943.0	4183232.5	1.5	10.00	0.12	4.65
L0003112	0	0.72900E-06	563943.3	4183232.2	1.6	10.00	0.12	4.65
L0003113	0	0.72900E-06	563943.5	4183232.2	1.6	10.00	0.12	4.65
L0003114	0	0.72900E-06	563943.7	4183232.0	1.6	10.00	0.12	4.65
L0003115	0	0.72900E-06	563943.9	4183232.0	1.6	10.00	0.12	4.65
L0003116	0	0.72900E-06	563944.1	4183232.0	1.6	10.00	0.12	4.65
L0003117	0	0.72900E-06	563944.4	4183231.8	1.6	10.00	0.12	4.65
L0003118	0	0.72900E-06	563944.6	4183231.8	1.6	10.00	0.12	4.65
L0003119	0	0.72900E-06	563944.8	4183231.5	1.7	10.00	0.12	4.65
L0003120	0	0.72900E-06	563945.1	4183231.5	1.7	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0003121	0	0.72900E-06	563945.2	4183231.3	1.7	10.00	0.12	4.65	
L0003122	0	0.72900E-06	563945.5	4183231.3	1.7	10.00	0.12	4.65	
L0003123	0	0.72900E-06	563945.7	4183231.0	1.7	10.00	0.12	4.65	
L0003124	0	0.72900E-06	563945.9	4183231.0	1.7	10.00	0.12	4.65	
L0003125	0	0.72900E-06	563946.1	4183231.0	1.8	10.00	0.12	4.65	
L0003126	0	0.72900E-06	563946.4	4183230.8	1.8	10.00	0.12	4.65	
L0003127	0	0.72900E-06	563946.6	4183230.8	1.8	10.00	0.12	4.65	
L0003128	0	0.72900E-06	563946.8	4183230.5	1.8	10.00	0.12	4.65	
L0003129	0	0.72900E-06	563947.1	4183230.5	1.8	10.00	0.12	4.65	
L0003130	0	0.72900E-06	563947.2	4183230.3	1.8	10.00	0.12	4.65	
L0003131	0	0.72900E-06	563947.5	4183230.3	1.8	10.00	0.12	4.65	
L0003132	0	0.72900E-06	563947.7	4183230.0	1.8	10.00	0.12	4.65	
L0003133	0	0.72900E-06	563947.9	4183230.0	1.9	10.00	0.12	4.65	
L0003134	0	0.72900E-06	563948.2	4183229.8	1.9	10.00	0.12	4.65	
L0003135	0	0.72900E-06	563948.4	4183229.8	1.9	10.00	0.12	4.65	
L0003136	0	0.72900E-06	563948.6	4183229.8	1.9	10.00	0.12	4.65	
L0003137	0	0.72900E-06	563948.8	4183229.5	1.9	10.00	0.12	4.65	
L0003138	0	0.72900E-06	563949.1	4183229.5	1.9	10.00	0.12	4.65	
L0003139	0	0.72900E-06	563949.3	4183229.2	1.9	10.00	0.12	4.65	
L0003140	0	0.72900E-06	563949.5	4183229.2	1.9	10.00	0.12	4.65	

L0003141	0	0.72900E-06	563949.8	4183229.0	1.9	10.00	0.12	4.65
L0003142	0	0.72900E-06	563949.9	4183229.0	1.9	10.00	0.12	4.65
L0003143	0	0.72900E-06	563950.2	4183228.8	2.0	10.00	0.12	4.65
L0003144	0	0.72900E-06	563950.4	4183228.8	2.0	10.00	0.12	4.65
L0003145	0	0.72900E-06	563950.6	4183228.5	2.0	10.00	0.12	4.65
L0003146	0	0.72900E-06	563950.8	4183228.5	2.0	10.00	0.12	4.65
L0003147	0	0.72900E-06	563951.1	4183228.5	2.0	10.00	0.12	4.65
L0003148	0	0.72900E-06	563951.2	4183228.2	2.0	10.00	0.12	4.65
L0003149	0	0.72900E-06	563951.5	4183228.2	2.0	10.00	0.12	4.65
L0003150	0	0.72900E-06	563951.8	4183228.0	2.0	10.00	0.12	4.65
L0003151	0	0.72900E-06	563951.9	4183228.0	2.0	10.00	0.12	4.65
L0003152	0	0.72900E-06	563952.2	4183227.8	2.0	10.00	0.12	4.65
L0003153	0	0.72900E-06	563952.4	4183227.8	2.0	10.00	0.12	4.65
L0003154	0	0.72900E-06	563952.6	4183227.5	2.0	10.00	0.12	4.65
L0003155	0	0.72900E-06	563952.8	4183227.5	2.0	10.00	0.12	4.65
L0003156	0	0.72900E-06	563953.1	4183227.2	2.0	10.00	0.12	4.65
L0003157	0	0.72900E-06	563953.3	4183227.2	2.0	10.00	0.12	4.65
L0003158	0	0.72900E-06	563953.5	4183227.2	2.0	10.00	0.12	4.65
L0003159	0	0.72900E-06	563953.8	4183227.0	2.0	10.00	0.12	4.65
L0003160	0	0.72900E-06	563953.9	4183227.0	2.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003161	0	0.72900E-06	563954.2	4183226.8	2.0	10.00	0.12	4.65	
L0003162	0	0.72900E-06	563954.4	4183226.8	2.0	10.00	0.12	4.65	
L0003163	0	0.72900E-06	563954.6	4183226.5	2.0	10.00	0.12	4.65	
L0003164	0	0.72900E-06	563954.9	4183226.5	2.0	10.00	0.12	4.65	
L0003165	0	0.72900E-06	563955.1	4183226.2	2.0	10.00	0.12	4.65	
L0003166	0	0.72900E-06	563955.3	4183226.2	2.0	10.00	0.12	4.65	
L0003167	0	0.72900E-06	563955.5	4183226.2	2.0	10.00	0.12	4.65	
L0003168	0	0.72900E-06	563955.8	4183226.0	2.0	10.00	0.12	4.65	
L0003169	0	0.72900E-06	563955.9	4183226.0	2.0	10.00	0.12	4.65	
L0003170	0	0.72900E-06	563956.2	4183225.8	2.0	10.00	0.12	4.65	
L0003171	0	0.72900E-06	563956.4	4183225.8	2.0	10.00	0.12	4.65	
L0003172	0	0.72900E-06	563956.6	4183225.5	2.0	10.00	0.12	4.65	
L0003173	0	0.72900E-06	563956.9	4183225.5	2.0	10.00	0.12	4.65	
L0003174	0	0.72900E-06	563957.1	4183225.2	2.0	10.00	0.12	4.65	
L0003175	0	0.72900E-06	563957.3	4183225.2	2.0	10.00	0.12	4.65	
L0003176	0	0.72900E-06	563957.5	4183225.0	2.0	10.00	0.12	4.65	
L0003177	0	0.72900E-06	563957.8	4183225.0	2.0	10.00	0.12	4.65	
L0003178	0	0.72900E-06	563958.0	4183225.0	1.9	10.00	0.12	4.65	
L0003179	0	0.72900E-06	563958.2	4183224.8	1.9	10.00	0.12	4.65	
L0003180	0	0.72900E-06	563958.4	4183224.8	1.9	10.00	0.12	4.65	

L0003181	0	0.72900E-06	563958.6	4183224.5	1.9	10.00	0.12	4.65
L0003182	0	0.72900E-06	563958.9	4183224.5	1.9	10.00	0.12	4.65
L0003183	0	0.72900E-06	563959.1	4183224.3	1.9	10.00	0.12	4.65
L0003184	0	0.72900E-06	563959.3	4183224.3	1.9	10.00	0.12	4.65
L0003185	0	0.72900E-06	563959.5	4183224.0	1.9	10.00	0.12	4.65
L0003186	0	0.72900E-06	563959.8	4183224.0	1.9	10.00	0.12	4.65
L0003187	0	0.72900E-06	563960.0	4183223.8	2.1	10.00	0.12	4.65
L0003188	0	0.72900E-06	563960.2	4183223.8	2.1	10.00	0.12	4.65
L0003189	0	0.72900E-06	563960.4	4183223.8	2.1	10.00	0.12	4.65
L0003190	0	0.72900E-06	563960.6	4183223.5	2.1	10.00	0.12	4.65
L0003191	0	0.72900E-06	563960.9	4183223.5	2.1	10.00	0.12	4.65
L0003192	0	0.72900E-06	563961.1	4183223.2	2.1	10.00	0.12	4.65
L0003193	0	0.72900E-06	563961.3	4183223.2	2.1	10.00	0.12	4.65
L0003194	0	0.72900E-06	563961.6	4183223.0	2.1	10.00	0.12	4.65
L0003195	0	0.72900E-06	563961.8	4183223.0	2.1	10.00	0.12	4.65
L0003196	0	0.72900E-06	563962.0	4183222.8	2.1	10.00	0.12	4.65
L0003197	0	0.72900E-06	563962.2	4183222.8	2.1	10.00	0.12	4.65
L0003198	0	0.72900E-06	563962.4	4183222.8	2.1	10.00	0.12	4.65
L0003199	0	0.72900E-06	563962.6	4183222.5	2.1	10.00	0.12	4.65
L0003200	0	0.72900E-06	563962.9	4183222.5	2.2	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003201	0	0.72900E-06	563963.1	4183222.2	2.2	10.00	0.12	4.65	
L0003202	0	0.72900E-06	563963.3	4183222.2	2.2	10.00	0.12	4.65	
L0003203	0	0.72900E-06	563963.6	4183222.0	2.2	10.00	0.12	4.65	
L0003204	0	0.72900E-06	563963.8	4183222.0	2.2	10.00	0.12	4.65	
L0003205	0	0.72900E-06	563964.0	4183221.8	2.2	10.00	0.12	4.65	
L0003206	0	0.72900E-06	563964.2	4183221.8	2.2	10.00	0.12	4.65	
L0003207	0	0.72900E-06	563964.4	4183221.5	2.2	10.00	0.12	4.65	
L0003208	0	0.72900E-06	563964.7	4183221.5	2.2	10.00	0.12	4.65	
L0003209	0	0.72900E-06	563964.9	4183221.5	2.2	10.00	0.12	4.65	
L0003210	0	0.72900E-06	563965.1	4183221.2	2.2	10.00	0.12	4.65	
L0003211	0	0.72900E-06	563965.3	4183221.2	2.2	10.00	0.12	4.65	
L0003212	0	0.72900E-06	563965.6	4183221.0	2.2	10.00	0.12	4.65	
L0003213	0	0.72900E-06	563965.8	4183221.0	2.2	10.00	0.12	4.65	
L0003214	0	0.72900E-06	563966.0	4183220.8	2.2	10.00	0.12	4.65	
L0003215	0	0.72900E-06	563966.2	4183220.8	2.2	10.00	0.12	4.65	
L0003216	0	0.72900E-06	563966.4	4183220.5	2.2	10.00	0.12	4.65	
L0003217	0	0.72900E-06	563966.7	4183220.5	2.2	10.00	0.12	4.65	
L0003218	0	0.72900E-06	563966.9	4183220.2	2.2	10.00	0.12	4.65	
L0003219	0	0.72900E-06	563967.1	4183220.2	2.2	10.00	0.12	4.65	
L0003220	0	0.72900E-06	563967.3	4183220.2	2.2	10.00	0.12	4.65	

L0003221	0	0.72900E-06	563967.6	4183220.0	2.2	10.00	0.12	4.65
L0003222	0	0.72900E-06	563967.8	4183220.0	2.2	10.00	0.12	4.65
L0003223	0	0.72900E-06	563968.0	4183219.8	2.3	10.00	0.12	4.65
L0003224	0	0.72900E-06	563968.3	4183219.8	2.3	10.00	0.12	4.65
L0003225	0	0.72900E-06	563968.4	4183219.5	2.3	10.00	0.12	4.65
L0003226	0	0.72900E-06	563968.7	4183219.5	2.3	10.00	0.12	4.65
L0003227	0	0.72900E-06	563968.9	4183219.2	2.3	10.00	0.12	4.65
L0003228	0	0.72900E-06	563969.1	4183219.2	2.3	10.00	0.12	4.65
L0003229	0	0.72900E-06	563969.3	4183219.0	2.3	10.00	0.12	4.65
L0003230	0	0.72900E-06	563969.6	4183219.0	2.3	10.00	0.12	4.65
L0003231	0	0.72900E-06	563969.8	4183219.0	2.3	10.00	0.12	4.65
L0003232	0	0.72900E-06	563970.0	4183218.8	2.3	10.00	0.12	4.65
L0003233	0	0.72900E-06	563970.2	4183218.8	2.3	10.00	0.12	4.65
L0003234	0	0.72900E-06	563970.4	4183218.5	2.3	10.00	0.12	4.65
L0003235	0	0.72900E-06	563970.7	4183218.5	2.3	10.00	0.12	4.65
L0003236	0	0.72900E-06	563970.9	4183218.3	2.3	10.00	0.12	4.65
L0003237	0	0.72900E-06	563971.1	4183218.3	2.3	10.00	0.12	4.65
L0003238	0	0.72900E-06	563971.4	4183218.0	2.3	10.00	0.12	4.65
L0003239	0	0.72900E-06	563971.6	4183218.0	2.3	10.00	0.12	4.65
L0003240	0	0.72900E-06	563971.8	4183218.0	2.3	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003241	0	0.72900E-06	563972.0	4183217.8	2.3	10.00	0.12	4.65	
L0003242	0	0.72900E-06	563972.2	4183217.8	2.3	10.00	0.12	4.65	
L0003243	0	0.72900E-06	563972.4	4183217.5	2.3	10.00	0.12	4.65	
L0003244	0	0.72900E-06	563972.7	4183217.5	2.3	10.00	0.12	4.65	
L0003245	0	0.72900E-06	563972.9	4183217.2	2.3	10.00	0.12	4.65	
L0003246	0	0.72900E-06	563973.1	4183217.2	2.3	10.00	0.12	4.65	
L0003247	0	0.72900E-06	563973.4	4183217.0	2.3	10.00	0.12	4.65	
L0003248	0	0.72900E-06	563973.6	4183217.0	2.3	10.00	0.12	4.65	
L0003249	0	0.72900E-06	563973.8	4183216.8	2.3	10.00	0.12	4.65	
L0003250	0	0.72900E-06	563974.0	4183216.8	2.3	10.00	0.12	4.65	
L0003251	0	0.72900E-06	563974.3	4183216.8	2.3	10.00	0.12	4.65	
L0003252	0	0.72900E-06	563974.5	4183216.5	2.3	10.00	0.12	4.65	
L0003253	0	0.72900E-06	563974.7	4183216.5	2.3	10.00	0.12	4.65	
L0003254	0	0.72900E-06	563974.9	4183216.2	2.3	10.00	0.12	4.65	
L0003255	0	0.72900E-06	563975.1	4183216.2	2.3	10.00	0.12	4.65	
L0003256	0	0.72900E-06	563975.4	4183216.0	2.3	10.00	0.12	4.65	
L0003257	0	0.72900E-06	563975.6	4183216.0	2.3	10.00	0.12	4.65	
L0003258	0	0.72900E-06	563975.8	4183215.8	2.3	10.00	0.12	4.65	
L0003259	0	0.72900E-06	563976.0	4183215.8	1.3	10.00	0.12	4.65	
L0003260	0	0.72900E-06	563976.2	4183215.5	1.4	10.00	0.12	4.65	

L0003261	0	0.72900E-06	563976.5	4183215.5	1.4	10.00	0.12	4.65
L0003262	0	0.72900E-06	563976.7	4183215.5	1.4	10.00	0.12	4.65
L0003263	0	0.72900E-06	563976.9	4183215.2	1.4	10.00	0.12	4.65
L0003264	0	0.72900E-06	563977.1	4183215.2	1.4	10.00	0.12	4.65
L0003265	0	0.72900E-06	563977.4	4183215.0	1.4	10.00	0.12	4.65
L0003266	0	0.72900E-06	563977.6	4183215.0	1.4	10.00	0.12	4.65
L0003267	0	0.72900E-06	563977.8	4183214.8	1.4	10.00	0.12	4.65
L0003268	0	0.72900E-06	563978.1	4183214.8	1.4	10.00	0.12	4.65
L0003269	0	0.72900E-06	563978.2	4183214.5	1.4	10.00	0.12	4.65
L0003270	0	0.72900E-06	563978.5	4183214.5	1.4	10.00	0.12	4.65
L0003271	0	0.72900E-06	563978.7	4183214.2	1.4	10.00	0.12	4.65
L0003272	0	0.72900E-06	563978.9	4183214.2	1.4	10.00	0.12	4.65
L0003273	0	0.72900E-06	563979.1	4183214.2	1.4	10.00	0.12	4.65
L0003274	0	0.72900E-06	563979.4	4183214.0	1.4	10.00	0.12	4.65
L0003275	0	0.72900E-06	563979.6	4183214.0	1.4	10.00	0.12	4.65
L0003276	0	0.72900E-06	563979.8	4183213.8	1.5	10.00	0.12	4.65
L0003277	0	0.72900E-06	563980.1	4183213.8	1.5	10.00	0.12	4.65
L0003278	0	0.72900E-06	563980.2	4183213.5	1.5	10.00	0.12	4.65
L0003279	0	0.72900E-06	563980.5	4183213.5	1.5	10.00	0.12	4.65
L0003280	0	0.72900E-06	563980.7	4183213.2	1.5	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0003281	0	0.72900E-06	563980.9	4183213.2	1.5	10.00	0.12	4.65	
L0003282	0	0.72900E-06	563981.2	4183213.2	1.5	10.00	0.12	4.65	
L0003283	0	0.72900E-06	563981.4	4183213.0	1.5	10.00	0.12	4.65	
L0003284	0	0.72900E-06	563981.6	4183213.0	1.5	10.00	0.12	4.65	
L0003285	0	0.72900E-06	563981.8	4183212.8	1.5	10.00	0.12	4.65	
L0003286	0	0.72900E-06	563982.1	4183212.8	1.5	10.00	0.12	4.65	
L0003287	0	0.72900E-06	563982.2	4183212.5	1.5	10.00	0.12	4.65	
L0003288	0	0.72900E-06	563982.5	4183212.5	1.5	10.00	0.12	4.65	
L0003289	0	0.72900E-06	563982.8	4183212.3	1.5	10.00	0.12	4.65	
L0003290	0	0.72900E-06	563982.9	4183212.3	1.5	10.00	0.12	4.65	
L0003291	0	0.72900E-06	563983.2	4183212.0	1.6	10.00	0.12	4.65	
L0003292	0	0.72900E-06	563983.4	4183212.0	1.6	10.00	0.12	4.65	
L0003293	0	0.72900E-06	563983.6	4183212.0	1.6	10.00	0.12	4.65	
L0003294	0	0.72900E-06	563983.8	4183211.8	1.6	10.00	0.12	4.65	
L0003295	0	0.72900E-06	563984.1	4183211.8	1.6	10.00	0.12	4.65	
L0003296	0	0.72900E-06	563984.2	4183211.5	1.6	10.00	0.12	4.65	
L0003297	0	0.72900E-06	563984.5	4183211.5	1.6	10.00	0.12	4.65	
L0003298	0	0.72900E-06	563984.8	4183211.3	1.6	10.00	0.12	4.65	
L0003299	0	0.72900E-06	563984.9	4183211.3	1.6	10.00	0.12	4.65	
L0003300	0	0.72900E-06	563985.2	4183211.0	1.6	10.00	0.12	4.65	

L0003301	0	0.72900E-06	563985.4	4183211.0	1.6	10.00	0.12	4.65
L0003302	0	0.72900E-06	563985.6	4183210.8	1.6	10.00	0.12	4.65
L0003303	0	0.72900E-06	563985.8	4183210.8	1.6	10.00	0.12	4.65
L0003304	0	0.72900E-06	563986.1	4183210.8	1.6	10.00	0.12	4.65
L0003305	0	0.72900E-06	563986.3	4183210.5	1.6	10.00	0.12	4.65
L0003306	0	0.72900E-06	563986.5	4183210.5	1.6	10.00	0.12	4.65
L0003307	0	0.72900E-06	563986.8	4183210.2	1.7	10.00	0.12	4.65
L0003308	0	0.72900E-06	563986.9	4183210.2	1.7	10.00	0.12	4.65
L0003309	0	0.72900E-06	563987.2	4183210.0	1.7	10.00	0.12	4.65
L0003310	0	0.72900E-06	563987.4	4183210.0	1.7	10.00	0.12	4.65
L0003311	0	0.72900E-06	563987.6	4183209.8	1.7	10.00	0.12	4.65
L0003312	0	0.72900E-06	563987.9	4183209.8	1.7	10.00	0.12	4.65
L0003313	0	0.72900E-06	563988.1	4183209.8	1.7	10.00	0.12	4.65
L0003314	0	0.72900E-06	563988.3	4183209.5	1.7	10.00	0.12	4.65
L0003315	0	0.72900E-06	563988.5	4183209.5	1.7	10.00	0.12	4.65
L0003316	0	0.72900E-06	563988.8	4183209.2	1.7	10.00	0.12	4.65
L0003317	0	0.72900E-06	563988.9	4183209.2	1.7	10.00	0.12	4.65
L0003318	0	0.72900E-06	563989.2	4183209.0	1.7	10.00	0.12	4.65
L0003319	0	0.72900E-06	563989.4	4183209.0	1.7	10.00	0.12	4.65
L0003320	0	0.72900E-06	563989.6	4183208.8	1.7	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003321	0	0.72900E-06	563989.9	4183208.8	1.7	10.00	0.12	4.65	
L0003322	0	0.72900E-06	563990.1	4183208.5	1.7	10.00	0.12	4.65	
L0003323	0	0.72900E-06	563990.3	4183208.5	1.7	10.00	0.12	4.65	
L0003324	0	0.72900E-06	563990.5	4183208.5	1.7	10.00	0.12	4.65	
L0003325	0	0.72900E-06	563990.8	4183208.2	1.7	10.00	0.12	4.65	
L0003326	0	0.72900E-06	563991.0	4183208.2	1.7	10.00	0.12	4.65	
L0003327	0	0.72900E-06	563991.2	4183208.0	1.7	10.00	0.12	4.65	
L0003328	0	0.72900E-06	563991.4	4183208.0	1.7	10.00	0.12	4.65	
L0003329	0	0.72900E-06	563991.6	4183207.8	1.7	10.00	0.12	4.65	
L0003330	0	0.72900E-06	563991.9	4183207.8	1.7	10.00	0.12	4.65	
L0003331	0	0.72900E-06	563992.1	4183207.5	1.8	10.00	0.12	4.65	
L0003332	0	0.72900E-06	563992.3	4183207.5	1.8	10.00	0.12	4.65	
L0003333	0	0.72900E-06	563992.6	4183207.2	1.8	10.00	0.12	4.65	
L0003334	0	0.72900E-06	563992.8	4183207.2	1.8	10.00	0.12	4.65	
L0003335	0	0.72900E-06	563993.0	4183207.2	1.8	10.00	0.12	4.65	
L0003336	0	0.72900E-06	563993.2	4183207.0	1.8	10.00	0.12	4.65	
L0003337	0	0.72900E-06	563993.4	4183207.0	1.8	10.00	0.12	4.65	
L0003338	0	0.72900E-06	563993.6	4183206.8	1.8	10.00	0.12	4.65	
L0003339	0	0.72900E-06	563993.9	4183206.8	1.8	10.00	0.12	4.65	
L0003340	0	0.72900E-06	563994.1	4183206.5	1.8	10.00	0.12	4.65	

L0003341	0	0.72900E-06	563994.3	4183206.5	1.8	10.00	0.12	4.65
L0003342	0	0.72900E-06	563994.6	4183206.2	1.8	10.00	0.12	4.65
L0003343	0	0.72900E-06	563994.8	4183206.2	1.8	10.00	0.12	4.65
L0003344	0	0.72900E-06	563995.0	4183206.0	1.8	10.00	0.12	4.65
L0003345	0	0.72900E-06	563995.2	4183206.0	1.8	10.00	0.12	4.65
L0003346	0	0.72900E-06	563995.4	4183206.0	1.8	10.00	0.12	4.65
L0003347	0	0.72900E-06	563995.6	4183205.8	1.8	10.00	0.12	4.65
L0003348	0	0.72900E-06	563995.9	4183205.8	1.8	10.00	0.12	4.65
L0003349	0	0.72900E-06	563996.1	4183205.5	1.8	10.00	0.12	4.65
L0003350	0	0.72900E-06	563996.3	4183205.5	1.8	10.00	0.12	4.65
L0003351	0	0.72900E-06	563996.6	4183205.3	1.8	10.00	0.12	4.65
L0003352	0	0.72900E-06	563996.8	4183205.3	1.8	10.00	0.12	4.65
L0003353	0	0.72900E-06	563997.0	4183205.0	1.8	10.00	0.12	4.65
L0003354	0	0.72900E-06	563997.2	4183205.0	1.8	10.00	0.12	4.65
L0003355	0	0.72900E-06	563997.4	4183205.0	1.8	10.00	0.12	4.65
L0003356	0	0.72900E-06	563997.7	4183204.8	1.8	10.00	0.12	4.65
L0003357	0	0.72900E-06	563997.9	4183204.8	1.8	10.00	0.12	4.65
L0003358	0	0.72900E-06	563998.1	4183204.5	1.8	10.00	0.12	4.65
L0003359	0	0.72900E-06	563998.3	4183204.5	1.8	10.00	0.12	4.65
L0003360	0	0.72900E-06	563998.6	4183204.2	1.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003361	0	0.72900E-06	563998.8	4183204.2	1.8	10.00	0.12	4.65	
L0003362	0	0.72900E-06	563999.0	4183204.0	1.8	10.00	0.12	4.65	
L0003363	0	0.72900E-06	563999.2	4183204.0	1.8	10.00	0.12	4.65	
L0003364	0	0.72900E-06	563999.4	4183203.8	1.8	10.00	0.12	4.65	
L0003365	0	0.72900E-06	563999.7	4183203.8	1.8	10.00	0.12	4.65	
L0003366	0	0.72900E-06	563999.9	4183203.8	1.8	10.00	0.12	4.65	
L0003367	0	0.72900E-06	564000.1	4183203.5	1.9	10.00	0.12	4.65	
L0003368	0	0.72900E-06	564000.3	4183203.5	1.9	10.00	0.12	4.65	
L0003369	0	0.72900E-06	564000.6	4183203.2	1.9	10.00	0.12	4.65	
L0003370	0	0.72900E-06	564000.8	4183203.2	1.9	10.00	0.12	4.65	
L0003371	0	0.72900E-06	564001.0	4183203.0	1.9	10.00	0.12	4.65	
L0003372	0	0.72900E-06	564001.2	4183203.0	1.9	10.00	0.12	4.65	
L0003373	0	0.72900E-06	564001.4	4183202.8	1.9	10.00	0.12	4.65	
L0003374	0	0.72900E-06	564001.7	4183202.8	1.9	10.00	0.12	4.65	
L0003375	0	0.72900E-06	564001.9	4183202.5	1.9	10.00	0.12	4.65	
L0003376	0	0.72900E-06	564002.1	4183202.5	1.9	10.00	0.12	4.65	
L0003377	0	0.72900E-06	564002.3	4183202.5	1.9	10.00	0.12	4.65	
L0003378	0	0.72900E-06	564002.6	4183202.2	1.9	10.00	0.12	4.65	
L0003379	0	0.72900E-06	564002.8	4183202.2	1.9	10.00	0.12	4.65	
L0003380	0	0.72900E-06	564003.0	4183202.0	1.9	10.00	0.12	4.65	

L0003381	0	0.72900E-06	564003.2	4183202.0	1.9	10.00	0.12	4.65
L0003382	0	0.72900E-06	564003.4	4183201.8	1.9	10.00	0.12	4.65
L0003383	0	0.72900E-06	564003.7	4183201.8	1.9	10.00	0.12	4.65
L0003384	0	0.72900E-06	564003.9	4183201.5	1.9	10.00	0.12	4.65
L0003385	0	0.72900E-06	564004.1	4183201.5	1.9	10.00	0.12	4.65
L0003386	0	0.72900E-06	564004.4	4183201.5	1.9	10.00	0.12	4.65
L0003387	0	0.72900E-06	564004.6	4183201.2	1.9	10.00	0.12	4.65
L0003388	0	0.72900E-06	564004.8	4183201.2	1.9	10.00	0.12	4.65
L0003389	0	0.72900E-06	564005.0	4183201.0	1.9	10.00	0.12	4.65
L0003390	0	0.72900E-06	564005.2	4183201.0	1.9	10.00	0.12	4.65
L0003391	0	0.72900E-06	564005.4	4183200.8	1.9	10.00	0.12	4.65
L0003392	0	0.72900E-06	564005.7	4183200.8	1.9	10.00	0.12	4.65
L0003393	0	0.72900E-06	564005.9	4183200.5	1.9	10.00	0.12	4.65
L0003394	0	0.72900E-06	564006.1	4183200.5	1.9	10.00	0.12	4.65
L0003395	0	0.72900E-06	564006.4	4183200.2	1.9	10.00	0.12	4.65
L0003396	0	0.72900E-06	564006.6	4183200.2	1.9	10.00	0.12	4.65
L0003397	0	0.72900E-06	564006.8	4183200.2	1.9	10.00	0.12	4.65
L0003398	0	0.72900E-06	564007.0	4183200.0	1.9	10.00	0.12	4.65
L0003399	0	0.72900E-06	564007.2	4183200.0	1.9	10.00	0.12	4.65
L0003400	0	0.72900E-06	564007.5	4183199.8	2.0	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0003401	0	0.72900E-06	564007.7	4183199.8	2.0	10.00	0.12	4.65	
L0003402	0	0.72900E-06	564007.9	4183199.5	2.0	10.00	0.12	4.65	
L0003403	0	0.72900E-06	564008.1	4183199.5	2.0	10.00	0.12	4.65	
L0003404	0	0.72900E-06	564008.4	4183199.3	2.0	10.00	0.12	4.65	
L0003405	0	0.72900E-06	564008.6	4183199.3	2.0	10.00	0.12	4.65	
L0003406	0	0.72900E-06	564008.8	4183199.0	2.0	10.00	0.12	4.65	
L0003407	0	0.72900E-06	564009.1	4183199.0	2.0	10.00	0.12	4.65	
L0003408	0	0.72900E-06	564009.3	4183199.0	2.0	10.00	0.12	4.65	
L0003409	0	0.72900E-06	564009.5	4183198.8	2.0	10.00	0.12	4.65	
L0003410	0	0.72900E-06	564009.7	4183198.8	2.0	10.00	0.12	4.65	
L0003411	0	0.72900E-06	564009.9	4183198.5	2.0	10.00	0.12	4.65	
L0003412	0	0.72900E-06	564010.1	4183198.5	2.0	10.00	0.12	4.65	
L0003413	0	0.72900E-06	564010.4	4183198.2	2.0	10.00	0.12	4.65	
L0003414	0	0.72900E-06	564010.6	4183198.2	2.0	10.00	0.12	4.65	
L0003415	0	0.72900E-06	564010.8	4183198.0	2.0	10.00	0.12	4.65	
L0003416	0	0.72900E-06	564011.1	4183198.0	2.0	10.00	0.12	4.65	
L0003417	0	0.72900E-06	564011.2	4183197.8	2.0	10.00	0.12	4.65	
L0003418	0	0.72900E-06	564011.5	4183197.8	2.0	10.00	0.12	4.65	
L0003419	0	0.72900E-06	564011.7	4183197.8	2.0	10.00	0.12	4.65	
L0003420	0	0.72900E-06	564011.9	4183197.5	2.0	10.00	0.12	4.65	

L0003421	0	0.72900E-06	564012.1	4183197.5	2.0	10.00	0.12	4.65
L0003422	0	0.72900E-06	564012.4	4183197.2	2.0	10.00	0.12	4.65
L0003423	0	0.72900E-06	564012.6	4183197.2	2.0	10.00	0.12	4.65
L0003424	0	0.72900E-06	564012.8	4183197.0	1.9	10.00	0.12	4.65
L0003425	0	0.72900E-06	564013.1	4183197.0	1.9	10.00	0.12	4.65
L0003426	0	0.72900E-06	564013.3	4183196.8	1.9	10.00	0.12	4.65
L0003427	0	0.72900E-06	564013.5	4183196.8	1.9	10.00	0.12	4.65
L0003428	0	0.72900E-06	564013.7	4183196.8	1.9	10.00	0.12	4.65
L0003429	0	0.72900E-06	564013.9	4183196.5	1.9	10.00	0.12	4.65
L0003430	0	0.72900E-06	564014.2	4183196.5	1.9	10.00	0.12	4.65
L0003431	0	0.72900E-06	564014.4	4183196.2	1.9	10.00	0.12	4.65
L0003432	0	0.72900E-06	564014.6	4183196.2	1.9	10.00	0.12	4.65
L0003433	0	0.72900E-06	564014.8	4183196.0	1.9	10.00	0.12	4.65
L0003434	0	0.72900E-06	564015.1	4183196.0	1.9	10.00	0.12	4.65
L0003435	0	0.72900E-06	564015.3	4183195.8	1.9	10.00	0.12	4.65
L0003436	0	0.72900E-06	564015.5	4183195.8	1.9	10.00	0.12	4.65
L0003437	0	0.72900E-06	564015.8	4183195.5	1.9	10.00	0.12	4.65
L0003438	0	0.72900E-06	564015.9	4183195.5	1.9	10.00	0.12	4.65
L0003439	0	0.72900E-06	564016.2	4183195.5	1.9	10.00	0.12	4.65
L0003440	0	0.72900E-06	564016.4	4183195.2	1.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0003441	0	0.72900E-06	564016.6	4183195.2	1.9	10.00	0.12	4.65	
L0003442	0	0.72900E-06	564016.8	4183195.0	1.9	10.00	0.12	4.65	
L0003443	0	0.72900E-06	564017.1	4183195.0	2.0	10.00	0.12	4.65	
L0003444	0	0.72900E-06	564017.3	4183194.8	2.0	10.00	0.12	4.65	
L0003445	0	0.72900E-06	564017.5	4183194.8	2.0	10.00	0.12	4.65	
L0003446	0	0.72900E-06	564017.8	4183194.5	2.0	10.00	0.12	4.65	
L0003447	0	0.72900E-06	564017.9	4183194.5	2.0	10.00	0.12	4.65	
L0003448	0	0.72900E-06	564018.2	4183194.2	2.0	10.00	0.12	4.65	
L0003449	0	0.72900E-06	564018.4	4183194.2	2.0	10.00	0.12	4.65	
L0003450	0	0.72900E-06	564018.6	4183194.2	2.0	10.00	0.12	4.65	
L0003451	0	0.72900E-06	564018.9	4183194.0	2.0	10.00	0.12	4.65	
L0003452	0	0.72900E-06	564019.1	4183194.0	2.0	10.00	0.12	4.65	
L0003453	0	0.72900E-06	564019.3	4183193.8	2.0	10.00	0.12	4.65	
L0003454	0	0.72900E-06	564019.5	4183193.8	2.0	10.00	0.12	4.65	
L0003455	0	0.72900E-06	564019.8	4183193.5	2.0	10.00	0.12	4.65	
L0003456	0	0.72900E-06	564019.9	4183193.5	2.0	10.00	0.12	4.65	
L0003457	0	0.72900E-06	564020.2	4183193.2	2.0	10.00	0.12	4.65	
L0003458	0	0.72900E-06	564020.4	4183193.2	2.0	10.00	0.12	4.65	
L0003459	0	0.72900E-06	564020.6	4183193.0	2.0	10.00	0.12	4.65	
L0003460	0	0.72900E-06	564020.9	4183193.0	2.0	10.00	0.12	4.65	

L0003461	0	0.72900E-06	564021.1	4183193.0	2.0	10.00	0.12	4.65
L0003462	0	0.72900E-06	564021.3	4183192.8	2.0	10.00	0.12	4.65
L0003463	0	0.72900E-06	564021.5	4183192.8	2.0	10.00	0.12	4.65
L0003464	0	0.72900E-06	564021.8	4183192.5	2.0	10.00	0.12	4.65
L0003465	0	0.72900E-06	564021.9	4183192.5	2.0	10.00	0.12	4.65
L0003466	0	0.72900E-06	564022.2	4183192.3	2.0	10.00	0.12	4.65
L0003467	0	0.72900E-06	564022.4	4183192.3	2.0	10.00	0.12	4.65
L0003468	0	0.72900E-06	564022.6	4183192.0	2.0	10.00	0.12	4.65
L0003469	0	0.72900E-06	564022.9	4183192.0	2.0	10.00	0.12	4.65
L0003470	0	0.72900E-06	564023.1	4183192.0	2.0	10.00	0.12	4.65
L0003471	0	0.72900E-06	564023.3	4183191.8	2.0	10.00	0.12	4.65
L0003472	0	0.72900E-06	564023.5	4183191.8	2.0	10.00	0.12	4.65
L0003473	0	0.72900E-06	564023.8	4183191.5	2.0	10.00	0.12	4.65
L0003474	0	0.72900E-06	564024.0	4183191.5	2.0	10.00	0.12	4.65
L0003475	0	0.72900E-06	564024.2	4183191.2	2.0	10.00	0.12	4.65
L0003476	0	0.72900E-06	564024.4	4183191.2	2.0	10.00	0.12	4.65
L0003477	0	0.72900E-06	564024.6	4183191.0	2.0	10.00	0.12	4.65
L0003478	0	0.72900E-06	564024.9	4183191.0	2.0	10.00	0.12	4.65
L0003479	0	0.72900E-06	564025.1	4183190.8	2.0	10.00	0.12	4.65
L0003480	0	0.72900E-06	564025.3	4183190.8	2.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003481	0	0.72900E-06	564025.6	4183190.8	2.0	10.00	0.12	4.65	
L0003482	0	0.72900E-06	564025.8	4183190.5	2.0	10.00	0.12	4.65	
L0003483	0	0.72900E-06	564026.0	4183190.5	2.0	10.00	0.12	4.65	
L0003484	0	0.72900E-06	564026.2	4183190.2	2.0	10.00	0.12	4.65	
L0003485	0	0.72900E-06	564026.4	4183190.2	2.0	10.00	0.12	4.65	
L0003486	0	0.72900E-06	564026.6	4183190.0	2.0	10.00	0.12	4.65	
L0003487	0	0.72900E-06	564026.9	4183190.0	2.0	10.00	0.12	4.65	
L0003488	0	0.72900E-06	564027.1	4183189.8	2.0	10.00	0.12	4.65	
L0003489	0	0.72900E-06	564027.3	4183189.8	1.9	10.00	0.12	4.65	
L0003490	0	0.72900E-06	564027.6	4183189.5	1.9	10.00	0.12	4.65	
L0003491	0	0.72900E-06	564027.8	4183189.5	1.9	10.00	0.12	4.65	
L0003492	0	0.72900E-06	564028.0	4183189.5	1.9	10.00	0.12	4.65	
L0003493	0	0.72900E-06	564028.2	4183189.2	1.9	10.00	0.12	4.65	
L0003494	0	0.72900E-06	564028.4	4183189.2	1.9	10.00	0.12	4.65	
L0003495	0	0.72900E-06	564028.6	4183189.0	1.9	10.00	0.12	4.65	
L0003496	0	0.72900E-06	564028.9	4183189.0	1.9	10.00	0.12	4.65	
L0003497	0	0.72900E-06	564029.1	4183188.8	1.9	10.00	0.12	4.65	
L0003498	0	0.72900E-06	564029.3	4183188.8	1.9	10.00	0.12	4.65	
L0003499	0	0.72900E-06	564029.6	4183188.5	1.9	10.00	0.12	4.65	
L0003500	0	0.72900E-06	564029.8	4183188.5	1.9	10.00	0.12	4.65	

L0003501	0	0.72900E-06	564030.0	4183188.5	1.9	10.00	0.12	4.65
L0003502	0	0.72900E-06	564030.2	4183188.2	1.9	10.00	0.12	4.65
L0003503	0	0.72900E-06	564030.4	4183188.2	1.9	10.00	0.12	4.65
L0003504	0	0.72900E-06	564030.7	4183188.0	1.9	10.00	0.12	4.65
L0003505	0	0.72900E-06	564030.9	4183188.0	1.9	10.00	0.12	4.65
L0003506	0	0.72900E-06	564031.1	4183187.8	1.9	10.00	0.12	4.65
L0003507	0	0.72900E-06	564031.3	4183187.8	1.9	10.00	0.12	4.65
L0003508	0	0.72900E-06	564031.6	4183187.5	1.9	10.00	0.12	4.65
L0003509	0	0.72900E-06	564031.8	4183187.5	1.9	10.00	0.12	4.65
L0003510	0	0.72900E-06	564032.0	4183187.2	1.9	10.00	0.12	4.65
L0003511	0	0.72900E-06	564032.3	4183187.2	1.9	10.00	0.12	4.65
L0003512	0	0.72900E-06	564032.4	4183187.2	1.9	10.00	0.12	4.65
L0003513	0	0.72900E-06	564032.7	4183187.0	1.9	10.00	0.12	4.65
L0003514	0	0.72900E-06	564032.9	4183187.0	1.9	10.00	0.12	4.65
L0003515	0	0.72900E-06	564033.1	4183186.8	1.9	10.00	0.12	4.65
L0003516	0	0.72900E-06	564033.3	4183186.8	1.9	10.00	0.12	4.65
L0003517	0	0.72900E-06	564033.6	4183186.5	1.8	10.00	0.12	4.65
L0003518	0	0.72900E-06	564033.8	4183186.5	1.8	10.00	0.12	4.65
L0003519	0	0.72900E-06	564034.0	4183186.3	1.8	10.00	0.12	4.65
L0003520	0	0.72900E-06	564034.2	4183186.3	1.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003521	0	0.72900E-06	564034.4	4183186.0	1.8	10.00	0.12	4.65	
L0003522	0	0.72900E-06	564034.7	4183186.0	1.8	10.00	0.12	4.65	
L0003523	0	0.72900E-06	564034.9	4183186.0	1.8	10.00	0.12	4.65	
L0003524	0	0.72900E-06	564035.1	4183185.8	1.8	10.00	0.12	4.65	
L0003525	0	0.72900E-06	564035.4	4183185.8	1.8	10.00	0.12	4.65	
L0003526	0	0.72900E-06	564035.6	4183185.5	1.8	10.00	0.12	4.65	
L0003527	0	0.72900E-06	564035.8	4183185.5	1.8	10.00	0.12	4.65	
L0003528	0	0.72900E-06	564036.0	4183185.2	1.8	10.00	0.12	4.65	
L0003529	0	0.72900E-06	564036.2	4183185.2	1.8	10.00	0.12	4.65	
L0003530	0	0.72900E-06	564036.4	4183185.0	1.8	10.00	0.12	4.65	
L0003531	0	0.72900E-06	564036.7	4183185.0	1.8	10.00	0.12	4.65	
L0003532	0	0.72900E-06	564036.9	4183184.8	1.8	10.00	0.12	4.65	
L0003533	0	0.72900E-06	564037.1	4183184.8	1.8	10.00	0.12	4.65	
L0003534	0	0.72900E-06	564037.4	4183184.8	1.8	10.00	0.12	4.65	
L0003535	0	0.72900E-06	564037.6	4183184.5	1.8	10.00	0.12	4.65	
L0003536	0	0.72900E-06	564037.8	4183184.5	1.8	10.00	0.12	4.65	
L0003537	0	0.72900E-06	564038.0	4183184.2	1.8	10.00	0.12	4.65	
L0003538	0	0.72900E-06	564038.3	4183184.2	1.8	10.00	0.12	4.65	
L0003539	0	0.72900E-06	564038.4	4183184.0	1.8	10.00	0.12	4.65	
L0003540	0	0.72900E-06	564038.7	4183184.0	1.8	10.00	0.12	4.65	

L0003541	0	0.72900E-06	564038.9	4183183.8	1.8	10.00	0.12	4.65
L0003542	0	0.72900E-06	564039.1	4183183.8	1.8	10.00	0.12	4.65
L0003543	0	0.72900E-06	564039.4	4183183.8	1.8	10.00	0.12	4.65
L0003544	0	0.72900E-06	564039.6	4183183.5	1.8	10.00	0.12	4.65
L0003545	0	0.72900E-06	564039.8	4183183.5	1.8	10.00	0.12	4.65
L0003546	0	0.72900E-06	564040.0	4183183.2	1.8	10.00	0.12	4.65
L0003547	0	0.72900E-06	564040.2	4183183.2	1.8	10.00	0.12	4.65
L0003548	0	0.72900E-06	564040.5	4183183.0	1.8	10.00	0.12	4.65
L0003549	0	0.72900E-06	564040.7	4183183.0	1.8	10.00	0.12	4.65
L0003550	0	0.72900E-06	564040.9	4183182.8	1.8	10.00	0.12	4.65
L0003551	0	0.72900E-06	564041.1	4183182.8	1.8	10.00	0.12	4.65
L0003552	0	0.72900E-06	564041.4	4183182.5	1.8	10.00	0.12	4.65
L0003553	0	0.72900E-06	564041.6	4183182.5	1.8	10.00	0.12	4.65
L0003554	0	0.72900E-06	564041.8	4183182.5	1.8	10.00	0.12	4.65
L0003555	0	0.72900E-06	564042.1	4183182.2	1.8	10.00	0.12	4.65
L0003556	0	0.72900E-06	564042.2	4183182.2	1.8	10.00	0.12	4.65
L0003557	0	0.72900E-06	564042.5	4183182.0	1.8	10.00	0.12	4.65
L0003558	0	0.72900E-06	564042.7	4183182.0	1.8	10.00	0.12	4.65
L0003559	0	0.72900E-06	564042.9	4183181.8	1.8	10.00	0.12	4.65
L0003560	0	0.72900E-06	564043.1	4183181.8	1.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003561	0	0.72900E-06	564043.4	4183181.5	1.8	10.00	0.12	4.65	
L0003562	0	0.72900E-06	564043.6	4183181.5	1.8	10.00	0.12	4.65	
L0003563	0	0.72900E-06	564043.8	4183181.2	1.8	10.00	0.12	4.65	
L0003564	0	0.72900E-06	564044.1	4183181.2	1.8	10.00	0.12	4.65	
L0003565	0	0.72900E-06	564044.3	4183181.2	1.8	10.00	0.12	4.65	
L0003566	0	0.72900E-06	564044.5	4183181.0	1.8	10.00	0.12	4.65	
L0003567	0	0.72900E-06	564044.7	4183181.0	1.8	10.00	0.12	4.65	
L0003568	0	0.72900E-06	564044.9	4183180.8	1.8	10.00	0.12	4.65	
L0003569	0	0.72900E-06	564045.1	4183180.8	1.8	10.00	0.12	4.65	
L0003570	0	0.72900E-06	564045.4	4183180.5	1.8	10.00	0.12	4.65	
L0003571	0	0.72900E-06	564045.6	4183180.5	1.8	10.00	0.12	4.65	
L0003572	0	0.72900E-06	564045.8	4183180.3	1.8	10.00	0.12	4.65	
L0003573	0	0.72900E-06	564046.1	4183180.3	1.8	10.00	0.12	4.65	
L0003574	0	0.72900E-06	564046.2	4183180.0	1.8	10.00	0.12	4.65	
L0003575	0	0.72900E-06	564046.5	4183180.0	1.8	10.00	0.12	4.65	
L0003576	0	0.72900E-06	564046.7	4183180.0	1.8	10.00	0.12	4.65	
L0003577	0	0.72900E-06	564046.9	4183179.8	1.8	10.00	0.12	4.65	
L0003578	0	0.72900E-06	564047.2	4183179.8	1.8	10.00	0.12	4.65	
L0003579	0	0.72900E-06	564047.4	4183179.5	1.8	10.00	0.12	4.65	
L0003580	0	0.72900E-06	564047.6	4183179.5	1.8	10.00	0.12	4.65	

L0003581	0	0.72900E-06	564047.8	4183179.2	1.8	10.00	0.12	4.65
L0003582	0	0.72900E-06	564048.1	4183179.2	2.0	10.00	0.12	4.65
L0003583	0	0.72900E-06	564048.2	4183179.0	2.0	10.00	0.12	4.65
L0003584	0	0.72900E-06	564048.5	4183179.0	2.0	10.00	0.12	4.65
L0003585	0	0.72900E-06	564048.8	4183179.0	2.0	10.00	0.12	4.65
L0003586	0	0.72900E-06	564048.9	4183178.8	2.0	10.00	0.12	4.65
L0003587	0	0.72900E-06	564049.2	4183178.8	2.0	10.00	0.12	4.65
L0003588	0	0.72900E-06	564049.4	4183178.5	2.0	10.00	0.12	4.65
L0003589	0	0.72900E-06	564049.6	4183178.5	2.0	10.00	0.12	4.65
L0003590	0	0.72900E-06	564049.8	4183178.2	2.0	10.00	0.12	4.65
L0003591	0	0.72900E-06	564050.1	4183178.2	2.0	10.00	0.12	4.65
L0003592	0	0.72900E-06	564050.3	4183178.0	2.0	10.00	0.12	4.65
L0003593	0	0.72900E-06	564050.5	4183178.0	2.0	10.00	0.12	4.65
L0003594	0	0.72900E-06	564050.8	4183177.8	2.0	10.00	0.12	4.65
L0003595	0	0.72900E-06	564050.9	4183177.8	2.0	10.00	0.12	4.65
L0003596	0	0.72900E-06	564051.2	4183177.8	2.0	10.00	0.12	4.65
L0003597	0	0.72900E-06	564051.4	4183177.5	2.0	10.00	0.12	4.65
L0003598	0	0.72900E-06	564051.6	4183177.5	2.0	10.00	0.12	4.65
L0003599	0	0.72900E-06	564051.9	4183177.2	2.0	10.00	0.12	4.65
L0003600	0	0.72900E-06	564052.1	4183177.2	2.0	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003601	0	0.72900E-06	564052.3	4183177.0	2.0	10.00	0.12	4.65	
L0003602	0	0.72900E-06	564052.5	4183177.0	2.0	10.00	0.12	4.65	
L0003603	0	0.72900E-06	564052.8	4183176.8	2.0	10.00	0.12	4.65	
L0003604	0	0.72900E-06	564052.9	4183176.8	2.0	10.00	0.12	4.65	
L0003605	0	0.72900E-06	564053.2	4183176.5	2.0	10.00	0.12	4.65	
L0003606	0	0.72900E-06	564053.4	4183176.5	2.0	10.00	0.12	4.65	
L0003607	0	0.72900E-06	564053.6	4183176.5	2.0	10.00	0.12	4.65	
L0003608	0	0.72900E-06	564053.9	4183176.2	2.0	10.00	0.12	4.65	
L0003609	0	0.72900E-06	564054.1	4183176.2	2.0	10.00	0.12	4.65	
L0003610	0	0.72900E-06	564054.3	4183176.0	2.0	10.00	0.12	4.65	
L0003611	0	0.72900E-06	564054.5	4183176.0	2.0	10.00	0.12	4.65	
L0003612	0	0.72900E-06	564054.8	4183175.8	1.8	10.00	0.12	4.65	
L0003613	0	0.72900E-06	564054.9	4183175.8	1.8	10.00	0.12	4.65	
L0003614	0	0.72900E-06	564055.2	4183175.5	1.8	10.00	0.12	4.65	
L0003615	0	0.72900E-06	564055.4	4183175.5	1.8	10.00	0.12	4.65	
L0003616	0	0.72900E-06	564055.6	4183175.5	1.8	10.00	0.12	4.65	
L0003617	0	0.72900E-06	564055.9	4183175.2	1.8	10.00	0.12	4.65	
L0003618	0	0.72900E-06	564056.1	4183175.2	1.8	10.00	0.12	4.65	
L0003619	0	0.72900E-06	564056.3	4183175.0	1.8	10.00	0.12	4.65	
L0003620	0	0.72900E-06	564056.5	4183175.0	1.8	10.00	0.12	4.65	

L0003621	0	0.72900E-06	564056.8	4183174.8	1.8	10.00	0.12	4.65
L0003622	0	0.72900E-06	564057.0	4183174.8	1.8	10.00	0.12	4.65
L0003623	0	0.72900E-06	564057.2	4183174.5	1.8	10.00	0.12	4.65
L0003624	0	0.72900E-06	564057.4	4183174.5	1.8	10.00	0.12	4.65
L0003625	0	0.72900E-06	564057.6	4183174.2	1.8	10.00	0.12	4.65
L0003626	0	0.72900E-06	564057.9	4183174.2	1.8	10.00	0.12	4.65
L0003627	0	0.72900E-06	564058.1	4183174.2	1.8	10.00	0.12	4.65
L0003628	0	0.72900E-06	564058.3	4183174.0	1.8	10.00	0.12	4.65
L0003629	0	0.72900E-06	564058.6	4183174.0	1.8	10.00	0.12	4.65
L0003630	0	0.72900E-06	564058.8	4183173.8	1.8	10.00	0.12	4.65
L0003631	0	0.72900E-06	564059.0	4183173.8	1.8	10.00	0.12	4.65
L0003632	0	0.72900E-06	564059.2	4183173.5	1.8	10.00	0.12	4.65
L0003633	0	0.72900E-06	564059.4	4183173.5	1.8	10.00	0.12	4.65
L0003634	0	0.72900E-06	564059.6	4183173.3	1.8	10.00	0.12	4.65
L0003635	0	0.72900E-06	564059.9	4183173.3	1.8	10.00	0.12	4.65
L0003636	0	0.72900E-06	564060.1	4183173.0	1.8	10.00	0.12	4.65
L0003637	0	0.72900E-06	564060.3	4183173.0	1.8	10.00	0.12	4.65
L0003638	0	0.72900E-06	564060.6	4183173.0	1.8	10.00	0.12	4.65
L0003639	0	0.72900E-06	564060.8	4183172.8	1.8	10.00	0.12	4.65
L0003640	0	0.72900E-06	564061.0	4183172.8	1.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0003641	0	0.72900E-06	564061.2	4183172.5	1.8	10.00	0.12	4.65	
L0003642	0	0.72900E-06	564061.4	4183172.5	1.8	10.00	0.12	4.65	
L0003643	0	0.72900E-06	564061.7	4183172.2	1.8	10.00	0.12	4.65	
L0003644	0	0.72900E-06	564061.9	4183172.2	1.8	10.00	0.12	4.65	
L0003645	0	0.72900E-06	564062.1	4183172.0	1.8	10.00	0.12	4.65	
L0003646	0	0.72900E-06	564062.3	4183172.0	1.8	10.00	0.12	4.65	
L0003647	0	0.72900E-06	564062.6	4183171.8	1.8	10.00	0.12	4.65	
L0003648	0	0.72900E-06	564062.8	4183171.8	1.8	10.00	0.12	4.65	
L0003649	0	0.72900E-06	564063.0	4183171.8	1.8	10.00	0.12	4.65	
L0003650	0	0.72900E-06	564063.2	4183171.5	1.8	10.00	0.12	4.65	
L0003651	0	0.72900E-06	564063.4	4183171.5	1.8	10.00	0.12	4.65	
L0003652	0	0.72900E-06	564063.7	4183171.2	1.8	10.00	0.12	4.65	
L0003653	0	0.72900E-06	564063.9	4183171.2	1.8	10.00	0.12	4.65	
L0003654	0	0.72900E-06	564064.1	4183171.0	1.8	10.00	0.12	4.65	
L0003655	0	0.72900E-06	564064.3	4183171.0	1.8	10.00	0.12	4.65	
L0003656	0	0.72900E-06	564064.6	4183170.8	1.8	10.00	0.12	4.65	
L0003657	0	0.72900E-06	564064.8	4183170.8	1.8	10.00	0.12	4.65	
L0003658	0	0.72900E-06	564065.0	4183170.8	1.8	10.00	0.12	4.65	
L0003659	0	0.72900E-06	564065.2	4183170.5	1.8	10.00	0.12	4.65	
L0003660	0	0.72900E-06	564065.4	4183170.5	1.9	10.00	0.12	4.65	

L0003661	0	0.72900E-06	564065.7	4183170.2	1.9	10.00	0.12	4.65
L0003662	0	0.72900E-06	564065.9	4183170.2	1.9	10.00	0.12	4.65
L0003663	0	0.72900E-06	564066.1	4183170.0	1.9	10.00	0.12	4.65
L0003664	0	0.72900E-06	564066.3	4183170.0	1.9	10.00	0.12	4.65
L0003665	0	0.72900E-06	564066.6	4183169.8	1.9	10.00	0.12	4.65
L0003666	0	0.72900E-06	564066.8	4183169.8	1.9	10.00	0.12	4.65
L0003667	0	0.72900E-06	564067.0	4183169.5	1.9	10.00	0.12	4.65
L0003668	0	0.72900E-06	564067.2	4183169.5	1.9	10.00	0.12	4.65
L0003669	0	0.72900E-06	564067.4	4183169.5	1.9	10.00	0.12	4.65
L0003670	0	0.72900E-06	564067.7	4183169.2	1.9	10.00	0.12	4.65
L0003671	0	0.72900E-06	564067.9	4183169.2	1.9	10.00	0.12	4.65
L0003672	0	0.72900E-06	564068.1	4183169.0	1.9	10.00	0.12	4.65
L0003673	0	0.72900E-06	564068.4	4183169.0	1.9	10.00	0.12	4.65
L0003674	0	0.72900E-06	564068.6	4183168.8	1.9	10.00	0.12	4.65
L0003675	0	0.72900E-06	564068.8	4183168.8	1.9	10.00	0.12	4.65
L0003676	0	0.72900E-06	564069.0	4183168.5	1.9	10.00	0.12	4.65
L0003677	0	0.72900E-06	564069.2	4183168.5	1.9	10.00	0.12	4.65
L0003678	0	0.72900E-06	564069.4	4183168.2	1.9	10.00	0.12	4.65
L0003679	0	0.72900E-06	564069.7	4183168.2	1.9	10.00	0.12	4.65
L0003680	0	0.72900E-06	564069.9	4183168.2	1.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003681	0	0.72900E-06	564070.1	4183168.0	1.9	10.00	0.12	4.65	
L0003682	0	0.72900E-06	564070.4	4183168.0	1.9	10.00	0.12	4.65	
L0003683	0	0.72900E-06	564070.6	4183167.8	1.9	10.00	0.12	4.65	
L0003684	0	0.72900E-06	564070.8	4183167.8	2.0	10.00	0.12	4.65	
L0003685	0	0.72900E-06	564071.0	4183167.5	2.0	10.00	0.12	4.65	
L0003686	0	0.72900E-06	564071.2	4183167.5	2.0	10.00	0.12	4.65	
L0003687	0	0.72900E-06	564071.4	4183167.3	2.0	10.00	0.12	4.65	
L0003688	0	0.72900E-06	564071.7	4183167.3	2.0	10.00	0.12	4.65	
L0003689	0	0.72900E-06	564071.9	4183167.0	2.0	10.00	0.12	4.65	
L0003690	0	0.72900E-06	564072.1	4183167.0	2.0	10.00	0.12	4.65	
L0003691	0	0.72900E-06	564072.4	4183167.0	2.0	10.00	0.12	4.65	
L0003692	0	0.72900E-06	564072.6	4183166.8	2.0	10.00	0.12	4.65	
L0003693	0	0.72900E-06	564072.8	4183166.8	2.0	10.00	0.12	4.65	
L0003694	0	0.72900E-06	564073.0	4183166.5	2.0	10.00	0.12	4.65	
L0003695	0	0.72900E-06	564073.2	4183166.5	2.0	10.00	0.12	4.65	
L0003696	0	0.72900E-06	564073.5	4183166.2	2.0	10.00	0.12	4.65	
L0003697	0	0.72900E-06	564073.7	4183166.2	2.0	10.00	0.12	4.65	
L0003698	0	0.72900E-06	564073.9	4183166.0	2.0	10.00	0.12	4.65	
L0003699	0	0.72900E-06	564074.1	4183166.0	2.0	10.00	0.12	4.65	
L0003700	0	0.72900E-06	564074.4	4183166.0	2.0	10.00	0.12	4.65	

L0003701	0	0.72900E-06	564074.6	4183165.8	2.0	10.00	0.12	4.65
L0003702	0	0.72900E-06	564074.8	4183165.8	2.0	10.00	0.12	4.65
L0003703	0	0.72900E-06	564075.1	4183165.5	2.0	10.00	0.12	4.65
L0003704	0	0.72900E-06	564075.2	4183165.5	2.0	10.00	0.12	4.65
L0003705	0	0.72900E-06	564075.5	4183165.2	2.0	10.00	0.12	4.65
L0003706	0	0.72900E-06	564075.7	4183165.2	2.0	10.00	0.12	4.65
L0003707	0	0.72900E-06	564075.9	4183165.0	2.0	10.00	0.12	4.65
L0003708	0	0.72900E-06	564076.1	4183165.0	2.0	10.00	0.12	4.65
L0003709	0	0.72900E-06	564076.4	4183164.8	2.0	10.00	0.12	4.65
L0003710	0	0.72900E-06	564076.6	4183164.8	2.0	10.00	0.12	4.65
L0003711	0	0.72900E-06	564076.8	4183164.8	2.0	10.00	0.12	4.65
L0003712	0	0.72900E-06	564077.1	4183164.5	2.0	10.00	0.12	4.65
L0003713	0	0.72900E-06	564077.2	4183164.5	2.0	10.00	0.12	4.65
L0003714	0	0.72900E-06	564077.5	4183164.2	2.0	10.00	0.12	4.65
L0003715	0	0.72900E-06	564077.7	4183164.2	2.0	10.00	0.12	4.65
L0003716	0	0.72900E-06	564077.9	4183164.0	2.0	10.00	0.12	4.65
L0003717	0	0.72900E-06	564078.2	4183164.0	2.0	10.00	0.12	4.65
L0003718	0	0.72900E-06	564078.4	4183163.8	2.0	10.00	0.12	4.65
L0003719	0	0.72900E-06	564078.6	4183163.8	2.0	10.00	0.12	4.65
L0003720	0	0.72900E-06	564078.8	4183163.5	2.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003721	0	0.72900E-06	564079.1	4183163.5	2.0	10.00	0.12	4.65	
L0003722	0	0.72900E-06	564079.3	4183163.5	2.0	10.00	0.12	4.65	
L0003723	0	0.72900E-06	564079.5	4183163.2	2.0	10.00	0.12	4.65	
L0003724	0	0.72900E-06	564079.8	4183163.2	2.0	10.00	0.12	4.65	
L0003725	0	0.72900E-06	564079.9	4183163.0	2.0	10.00	0.12	4.65	
L0003726	0	0.72900E-06	564080.2	4183163.0	2.0	10.00	0.12	4.65	
L0003727	0	0.72900E-06	564080.4	4183162.8	2.1	10.00	0.12	4.65	
L0003728	0	0.72900E-06	564080.6	4183162.8	2.1	10.00	0.12	4.65	
L0003729	0	0.72900E-06	564080.8	4183162.5	2.1	10.00	0.12	4.65	
L0003730	0	0.72900E-06	564081.1	4183162.5	2.1	10.00	0.12	4.65	
L0003731	0	0.72900E-06	564081.2	4183162.5	2.1	10.00	0.12	4.65	
L0003732	0	0.72900E-06	564081.5	4183162.2	2.1	10.00	0.12	4.65	
L0003733	0	0.72900E-06	564081.8	4183162.2	2.1	10.00	0.12	4.65	
L0003734	0	0.72900E-06	564081.9	4183162.0	2.1	10.00	0.12	4.65	
L0003735	0	0.72900E-06	564082.2	4183162.0	2.1	10.00	0.12	4.65	
L0003736	0	0.72900E-06	564082.4	4183161.8	2.1	10.00	0.12	4.65	
L0003737	0	0.72900E-06	564082.6	4183161.8	2.1	10.00	0.12	4.65	
L0003738	0	0.72900E-06	564082.8	4183161.5	2.1	10.00	0.12	4.65	
L0003739	0	0.72900E-06	564083.1	4183161.5	2.2	10.00	0.12	4.65	
L0003740	0	0.72900E-06	564083.3	4183161.3	2.2	10.00	0.12	4.65	

L0003741	0	0.72900E-06	564083.5	4183161.3	2.2	10.00	0.12	4.65
L0003742	0	0.72900E-06	564083.8	4183161.3	2.2	10.00	0.12	4.65
L0003743	0	0.72900E-06	564083.9	4183161.0	2.2	10.00	0.12	4.65
L0003744	0	0.72900E-06	564084.2	4183161.0	2.2	10.00	0.12	4.65
L0003745	0	0.72900E-06	564084.4	4183160.8	2.2	10.00	0.12	4.65
L0003746	0	0.72900E-06	564084.6	4183160.8	2.2	10.00	0.12	4.65
L0003747	0	0.72900E-06	564084.9	4183160.5	2.2	10.00	0.12	4.65
L0003748	0	0.72900E-06	564085.1	4183160.5	2.2	10.00	0.12	4.65
L0003749	0	0.72900E-06	564085.3	4183160.2	2.3	10.00	0.12	4.65
L0003750	0	0.72900E-06	564085.5	4183160.2	2.3	10.00	0.12	4.65
L0003751	0	0.72900E-06	564085.8	4183160.0	2.3	10.00	0.12	4.65
L0003752	0	0.72900E-06	564085.9	4183160.0	2.3	10.00	0.12	4.65
L0003753	0	0.72900E-06	564086.2	4183160.0	2.3	10.00	0.12	4.65
L0003754	0	0.72900E-06	564086.4	4183159.8	2.3	10.00	0.12	4.65
L0003755	0	0.72900E-06	564086.6	4183159.8	2.3	10.00	0.12	4.65
L0003756	0	0.72900E-06	564086.9	4183159.5	2.3	10.00	0.12	4.65
L0003757	0	0.72900E-06	564087.1	4183159.5	2.3	10.00	0.12	4.65
L0003758	0	0.72900E-06	564087.3	4183159.2	2.4	10.00	0.12	4.65
L0003759	0	0.72900E-06	564087.5	4183159.2	2.4	10.00	0.12	4.65
L0003760	0	0.72900E-06	564087.8	4183159.0	2.4	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003761	0	0.72900E-06	564088.0	4183159.0	2.4	10.00	0.12	4.65	
L0003762	0	0.72900E-06	564088.2	4183158.8	2.4	10.00	0.12	4.65	
L0003763	0	0.72900E-06	564088.4	4183158.8	2.4	10.00	0.12	4.65	
L0003764	0	0.72900E-06	564088.6	4183158.8	2.4	10.00	0.12	4.65	
L0003765	0	0.72900E-06	564088.9	4183158.5	2.4	10.00	0.12	4.65	
L0003766	0	0.72900E-06	564089.1	4183158.5	2.5	10.00	0.12	4.65	
L0003767	0	0.72900E-06	564089.3	4183158.2	2.5	10.00	0.12	4.65	
L0003768	0	0.72900E-06	564089.5	4183158.2	2.5	10.00	0.12	4.65	
L0003769	0	0.72900E-06	564089.8	4183158.0	2.5	10.00	0.12	4.65	
L0003770	0	0.72900E-06	564090.0	4183158.0	2.5	10.00	0.12	4.65	
L0003771	0	0.72900E-06	564090.2	4183157.8	2.5	10.00	0.12	4.65	
L0003772	0	0.72900E-06	564090.4	4183157.8	2.5	10.00	0.12	4.65	
L0003773	0	0.72900E-06	564090.6	4183157.8	2.5	10.00	0.12	4.65	
L0003774	0	0.72900E-06	564090.9	4183157.5	2.5	10.00	0.12	4.65	
L0003775	0	0.72900E-06	564091.1	4183157.5	2.5	10.00	0.12	4.65	
L0003776	0	0.72900E-06	564091.3	4183157.2	2.5	10.00	0.12	4.65	
L0003777	0	0.72900E-06	564091.6	4183157.2	2.6	10.00	0.12	4.65	
L0003778	0	0.72900E-06	564091.8	4183157.0	2.6	10.00	0.12	4.65	
L0003779	0	0.72900E-06	564092.0	4183157.0	2.6	10.00	0.12	4.65	
L0003780	0	0.72900E-06	564092.2	4183156.8	2.6	10.00	0.12	4.65	

L0003781	0	0.72900E-06	564092.4	4183156.8	2.6	10.00	0.12	4.65
L0003782	0	0.72900E-06	564092.6	4183156.5	2.6	10.00	0.12	4.65
L0003783	0	0.72900E-06	564092.9	4183156.5	2.6	10.00	0.12	4.65
L0003784	0	0.72900E-06	564093.1	4183156.5	2.6	10.00	0.12	4.65
L0003785	0	0.72900E-06	564093.3	4183156.2	2.6	10.00	0.12	4.65
L0003786	0	0.72900E-06	564093.6	4183156.2	2.6	10.00	0.12	4.65
L0003787	0	0.72900E-06	564093.8	4183156.0	2.6	10.00	0.12	4.65
L0003788	0	0.72900E-06	564094.0	4183156.0	2.6	10.00	0.12	4.65
L0003789	0	0.72900E-06	564094.2	4183155.8	2.6	10.00	0.12	4.65
L0003790	0	0.72900E-06	564094.4	4183155.8	2.6	10.00	0.12	4.65
L0003791	0	0.72900E-06	564094.7	4183155.5	2.6	10.00	0.12	4.65
L0003792	0	0.72900E-06	564094.9	4183155.5	2.7	10.00	0.12	4.65
L0003793	0	0.72900E-06	564095.1	4183155.2	2.7	10.00	0.12	4.65
L0003794	0	0.72900E-06	564095.3	4183155.2	2.7	10.00	0.12	4.65
L0003795	0	0.72900E-06	564095.6	4183155.2	2.7	10.00	0.12	4.65
L0003796	0	0.72900E-06	564095.8	4183155.0	2.7	10.00	0.12	4.65
L0003797	0	0.72900E-06	564096.0	4183155.0	2.8	10.00	0.12	4.65
L0003798	0	0.72900E-06	564096.2	4183154.8	2.8	10.00	0.12	4.65
L0003799	0	0.72900E-06	564096.4	4183154.8	2.8	10.00	0.12	4.65
L0003800	0	0.72900E-06	564096.7	4183154.5	2.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003801	0	0.72900E-06	564096.9	4183154.5	2.9	10.00	0.12	4.65	
L0003802	0	0.72900E-06	564097.1	4183154.3	2.9	10.00	0.12	4.65	
L0003803	0	0.72900E-06	564097.3	4183154.3	2.9	10.00	0.12	4.65	
L0003804	0	0.72900E-06	564097.6	4183154.0	2.9	10.00	0.12	4.65	
L0003805	0	0.72900E-06	564097.8	4183154.0	2.9	10.00	0.12	4.65	
L0003806	0	0.72900E-06	564098.0	4183154.0	2.9	10.00	0.12	4.65	
L0003807	0	0.72900E-06	564098.3	4183153.8	2.9	10.00	0.12	4.65	
L0003808	0	0.72900E-06	564098.4	4183153.8	2.9	10.00	0.12	4.65	
L0003809	0	0.72900E-06	564098.7	4183153.5	2.9	10.00	0.12	4.65	
L0003810	0	0.72900E-06	564098.9	4183153.5	2.9	10.00	0.12	4.65	
L0003811	0	0.72900E-06	564099.1	4183153.2	2.9	10.00	0.12	4.65	
L0003812	0	0.72900E-06	564099.3	4183153.2	2.9	10.00	0.12	4.65	
L0003813	0	0.72900E-06	564099.6	4183153.0	2.9	10.00	0.12	4.65	
L0003814	0	0.72900E-06	564099.8	4183153.0	2.9	10.00	0.12	4.65	
L0003815	0	0.72900E-06	564100.0	4183153.0	2.9	10.00	0.12	4.65	
L0003816	0	0.72900E-06	564100.2	4183152.8	2.9	10.00	0.12	4.65	
L0003817	0	0.72900E-06	564100.4	4183152.8	2.9	10.00	0.12	4.65	
L0003818	0	0.72900E-06	564100.7	4183152.5	2.9	10.00	0.12	4.65	
L0003819	0	0.72900E-06	564100.9	4183152.5	2.9	10.00	0.12	4.65	
L0003820	0	0.72900E-06	564101.1	4183152.2	2.9	10.00	0.12	4.65	

L0003821	0	0.72900E-06	564101.4	4183152.2	2.9	10.00	0.12	4.65
L0003822	0	0.72900E-06	564101.6	4183152.0	2.9	10.00	0.12	4.65
L0003823	0	0.72900E-06	564101.8	4183152.0	2.9	10.00	0.12	4.65
L0003824	0	0.72900E-06	564102.0	4183151.8	2.8	10.00	0.12	4.65
L0003825	0	0.72900E-06	564102.2	4183151.8	2.8	10.00	0.12	4.65
L0003826	0	0.72900E-06	564102.4	4183151.8	2.8	10.00	0.12	4.65
L0003827	0	0.72900E-06	564102.7	4183151.5	2.8	10.00	0.12	4.65
L0003828	0	0.72900E-06	564102.9	4183151.5	2.8	10.00	0.12	4.65
L0003829	0	0.72900E-06	564103.1	4183151.2	2.8	10.00	0.12	4.65
L0003830	0	0.72900E-06	564103.4	4183151.2	2.8	10.00	0.12	4.65
L0003831	0	0.72900E-06	564103.6	4183151.0	2.8	10.00	0.12	4.65
L0003832	0	0.72900E-06	564103.8	4183151.0	2.8	10.00	0.12	4.65
L0003833	0	0.72900E-06	564104.0	4183150.8	2.8	10.00	0.12	4.65
L0003834	0	0.72900E-06	564104.3	4183150.8	2.8	10.00	0.12	4.65
L0003835	0	0.72900E-06	564104.5	4183150.5	2.8	10.00	0.12	4.65
L0003836	0	0.72900E-06	564104.7	4183150.5	2.8	10.00	0.12	4.65
L0003837	0	0.72900E-06	564104.9	4183150.5	2.8	10.00	0.12	4.65
L0003838	0	0.72900E-06	564105.1	4183150.2	2.8	10.00	0.12	4.65
L0003839	0	0.72900E-06	564105.4	4183150.2	2.8	10.00	0.12	4.65
L0003840	0	0.72900E-06	564105.6	4183150.0	2.8	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003841	0	0.72900E-06	564105.8	4183150.0	2.8	10.00	0.12	4.65	
L0003842	0	0.72900E-06	564106.0	4183149.8	2.8	10.00	0.12	4.65	
L0003843	0	0.72900E-06	564106.2	4183149.8	2.8	10.00	0.12	4.65	
L0003844	0	0.72900E-06	564106.5	4183149.5	2.8	10.00	0.12	4.65	
L0003845	0	0.72900E-06	564106.7	4183149.5	2.8	10.00	0.12	4.65	
L0003846	0	0.72900E-06	564106.9	4183149.5	2.8	10.00	0.12	4.65	
L0003847	0	0.72900E-06	564107.1	4183149.2	2.8	10.00	0.12	4.65	
L0003848	0	0.72900E-06	564107.4	4183149.2	2.8	10.00	0.12	4.65	
L0003849	0	0.72900E-06	564107.6	4183149.0	2.8	10.00	0.12	4.65	
L0003850	0	0.72900E-06	564107.8	4183149.0	2.8	10.00	0.12	4.65	
L0003851	0	0.72900E-06	564108.1	4183148.8	2.8	10.00	0.12	4.65	
L0003852	0	0.72900E-06	564108.3	4183148.8	2.8	10.00	0.12	4.65	
L0003853	0	0.72900E-06	564108.5	4183148.5	2.8	10.00	0.12	4.65	
L0003854	0	0.72900E-06	564108.7	4183148.5	2.8	10.00	0.12	4.65	
L0003855	0	0.72900E-06	564108.9	4183148.3	2.8	10.00	0.12	4.65	
L0003856	0	0.72900E-06	564109.1	4183148.3	2.8	10.00	0.12	4.65	
L0003857	0	0.72900E-06	564109.4	4183148.3	2.8	10.00	0.12	4.65	
L0003858	0	0.72900E-06	564109.6	4183148.0	2.8	10.00	0.12	4.65	
L0003859	0	0.72900E-06	564109.8	4183148.0	2.8	10.00	0.12	4.65	
L0003860	0	0.72900E-06	564110.1	4183147.8	2.8	10.00	0.12	4.65	

L0003861	0	0.72900E-06	564110.2	4183147.8	2.8	10.00	0.12	4.65
L0003862	0	0.72900E-06	564110.5	4183147.5	2.8	10.00	0.12	4.65
L0003863	0	0.72900E-06	564110.7	4183147.5	2.8	10.00	0.12	4.65
L0003864	0	0.72900E-06	564110.9	4183147.2	2.8	10.00	0.12	4.65
L0003865	0	0.72900E-06	564111.2	4183147.2	2.8	10.00	0.12	4.65
L0003866	0	0.72900E-06	564111.4	4183147.0	2.8	10.00	0.12	4.65
L0003867	0	0.72900E-06	564111.6	4183147.0	2.8	10.00	0.12	4.65
L0003868	0	0.72900E-06	564111.8	4183147.0	2.8	10.00	0.12	4.65
L0003869	0	0.72900E-06	564112.1	4183146.8	2.8	10.00	0.12	4.65
L0003870	0	0.72900E-06	564112.2	4183146.8	2.8	10.00	0.12	4.65
L0003871	0	0.72900E-06	564112.5	4183146.5	2.8	10.00	0.12	4.65
L0003872	0	0.72900E-06	564112.8	4183146.5	2.9	10.00	0.12	4.65
L0003873	0	0.72900E-06	564112.9	4183146.2	2.9	10.00	0.12	4.65
L0003874	0	0.72900E-06	564113.2	4183146.2	2.9	10.00	0.12	4.65
L0003875	0	0.72900E-06	564113.4	4183146.0	2.9	10.00	0.12	4.65
L0003876	0	0.72900E-06	564113.6	4183146.0	2.9	10.00	0.12	4.65
L0003877	0	0.72900E-06	564113.8	4183145.8	2.9	10.00	0.12	4.65
L0003878	0	0.72900E-06	564114.1	4183145.8	2.9	10.00	0.12	4.65
L0003879	0	0.72900E-06	564114.3	4183145.8	2.9	10.00	0.12	4.65
L0003880	0	0.72900E-06	564114.5	4183145.5	2.9	10.00	0.12	4.65

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DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003881	0	0.72900E-06	564114.8	4183145.5	2.9	10.00	0.12	4.65	
L0003882	0	0.72900E-06	564114.9	4183145.2	2.9	10.00	0.12	4.65	
L0003883	0	0.72900E-06	564115.2	4183145.2	2.9	10.00	0.12	4.65	
L0003884	0	0.72900E-06	564115.4	4183145.0	2.9	10.00	0.12	4.65	
L0003885	0	0.72900E-06	564115.6	4183145.0	2.9	10.00	0.12	4.65	
L0003886	0	0.72900E-06	564115.8	4183144.8	2.9	10.00	0.12	4.65	
L0003887	0	0.72900E-06	564116.1	4183144.8	2.9	10.00	0.12	4.65	
L0003888	0	0.72900E-06	564116.3	4183144.8	2.9	10.00	0.12	4.65	
L0003889	0	0.72900E-06	564116.5	4183144.5	2.9	10.00	0.12	4.65	
L0003890	0	0.72900E-06	564116.8	4183144.5	2.9	10.00	0.12	4.65	
L0003891	0	0.72900E-06	564116.9	4183144.2	2.9	10.00	0.12	4.65	
L0003892	0	0.72900E-06	564117.2	4183144.2	2.9	10.00	0.12	4.65	
L0003893	0	0.72900E-06	564117.4	4183144.0	2.9	10.00	0.12	4.65	
L0003894	0	0.72900E-06	564117.6	4183144.0	2.9	10.00	0.12	4.65	
L0003895	0	0.72900E-06	564117.9	4183143.8	2.9	10.00	0.12	4.65	
L0003896	0	0.72900E-06	564118.1	4183143.8	2.9	10.00	0.12	4.65	
L0003897	0	0.72900E-06	564118.3	4183143.5	2.9	10.00	0.12	4.65	
L0003898	0	0.72900E-06	564118.5	4183143.5	2.9	10.00	0.12	4.65	
L0003899	0	0.72900E-06	564118.8	4183143.5	2.9	10.00	0.12	4.65	
L0003900	0	0.72900E-06	564118.9	4183143.2	2.9	10.00	0.12	4.65	

L0003901	0	0.72900E-06	564119.2	4183143.2	2.9	10.00	0.12	4.65
L0003902	0	0.72900E-06	564119.4	4183143.0	2.9	10.00	0.12	4.65
L0003903	0	0.72900E-06	564119.6	4183143.0	2.9	10.00	0.12	4.65
L0003904	0	0.72900E-06	564119.9	4183142.8	2.9	10.00	0.12	4.65
L0003905	0	0.72900E-06	564120.1	4183142.8	2.9	10.00	0.12	4.65
L0003906	0	0.72900E-06	564120.3	4183142.5	2.9	10.00	0.12	4.65
L0003907	0	0.72900E-06	564120.5	4183142.5	2.9	10.00	0.12	4.65
L0003908	0	0.72900E-06	564120.8	4183142.3	2.9	10.00	0.12	4.65
L0003909	0	0.72900E-06	564121.0	4183142.3	2.9	10.00	0.12	4.65
L0003910	0	0.72900E-06	564121.2	4183142.3	2.9	10.00	0.12	4.65
L0003911	0	0.72900E-06	564121.4	4183142.0	2.9	10.00	0.12	4.65
L0003912	0	0.72900E-06	564121.6	4183142.0	2.9	10.00	0.12	4.65
L0003913	0	0.72900E-06	564121.9	4183141.8	2.9	10.00	0.12	4.65
L0003914	0	0.72900E-06	564122.1	4183141.8	2.9	10.00	0.12	4.65
L0003915	0	0.72900E-06	564122.3	4183141.5	2.9	10.00	0.12	4.65
L0003916	0	0.72900E-06	564122.6	4183141.5	2.9	10.00	0.12	4.65
L0003917	0	0.72900E-06	564122.8	4183141.2	2.9	10.00	0.12	4.65
L0003918	0	0.72900E-06	564123.0	4183141.2	2.9	10.00	0.12	4.65
L0003919	0	0.72900E-06	564123.2	4183141.0	2.9	10.00	0.12	4.65
L0003920	0	0.72900E-06	564123.4	4183141.0	2.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003921	0	0.72900E-06	564123.6	4183141.0	2.9	10.00	0.12	4.65	
L0003922	0	0.72900E-06	564123.9	4183140.8	2.9	10.00	0.12	4.65	
L0003923	0	0.72900E-06	564124.1	4183140.8	2.9	10.00	0.12	4.65	
L0003924	0	0.72900E-06	564124.3	4183140.5	2.9	10.00	0.12	4.65	
L0003925	0	0.72900E-06	564124.6	4183140.5	2.9	10.00	0.12	4.65	
L0003926	0	0.72900E-06	564124.8	4183140.2	2.9	10.00	0.12	4.65	
L0003927	0	0.72900E-06	564125.0	4183140.2	2.9	10.00	0.12	4.65	
L0003928	0	0.72900E-06	564125.2	4183140.0	3.0	10.00	0.12	4.65	
L0003929	0	0.72900E-06	564125.4	4183140.0	2.9	10.00	0.12	4.65	
L0003930	0	0.72900E-06	564125.6	4183140.0	2.9	10.00	0.12	4.65	
L0003931	0	0.72900E-06	564125.9	4183139.8	3.0	10.00	0.12	4.65	
L0003932	0	0.72900E-06	564126.1	4183139.8	3.0	10.00	0.12	4.65	
L0003933	0	0.72900E-06	564126.3	4183139.5	3.0	10.00	0.12	4.65	
L0003934	0	0.72900E-06	564126.6	4183139.5	3.0	10.00	0.12	4.65	
L0003935	0	0.72900E-06	564126.8	4183139.2	3.0	10.00	0.12	4.65	
L0003936	0	0.72900E-06	564127.0	4183139.2	3.0	10.00	0.12	4.65	
L0003937	0	0.72900E-06	564127.2	4183139.0	3.0	10.00	0.12	4.65	
L0003938	0	0.72900E-06	564127.4	4183139.0	3.0	10.00	0.12	4.65	
L0003939	0	0.72900E-06	564127.7	4183138.8	3.0	10.00	0.12	4.65	
L0003940	0	0.72900E-06	564127.9	4183138.8	2.9	10.00	0.12	4.65	

L0003941	0	0.72900E-06	564128.1	4183138.8	2.9	10.00	0.12	4.65
L0003942	0	0.72900E-06	564128.3	4183138.5	2.9	10.00	0.12	4.65
L0003943	0	0.72900E-06	564128.6	4183138.5	2.9	10.00	0.12	4.65
L0003944	0	0.72900E-06	564128.8	4183138.2	2.9	10.00	0.12	4.65
L0003945	0	0.72900E-06	564129.0	4183138.2	2.9	10.00	0.12	4.65
L0003946	0	0.72900E-06	564129.2	4183138.0	2.9	10.00	0.12	4.65
L0003947	0	0.72900E-06	564129.4	4183138.0	2.9	10.00	0.12	4.65
L0003948	0	0.72900E-06	564129.7	4183137.8	2.9	10.00	0.12	4.65
L0003949	0	0.72900E-06	564129.9	4183137.8	2.9	10.00	0.12	4.65
L0003950	0	0.72900E-06	564130.1	4183137.5	2.9	10.00	0.12	4.65
L0003951	0	0.72900E-06	564130.3	4183137.5	2.9	10.00	0.12	4.65
L0003952	0	0.72900E-06	564130.6	4183137.5	2.9	10.00	0.12	4.65
L0003953	0	0.72900E-06	564130.8	4183137.2	2.9	10.00	0.12	4.65
L0003954	0	0.72900E-06	564131.0	4183137.2	2.9	10.00	0.12	4.65
L0003955	0	0.72900E-06	564131.2	4183137.0	2.9	10.00	0.12	4.65
L0003956	0	0.72900E-06	564131.4	4183137.0	2.9	10.00	0.12	4.65
L0003957	0	0.72900E-06	564131.7	4183136.8	2.8	10.00	0.12	4.65
L0003958	0	0.72900E-06	564131.9	4183136.8	2.8	10.00	0.12	4.65
L0003959	0	0.72900E-06	564132.1	4183136.5	2.8	10.00	0.12	4.65
L0003960	0	0.72900E-06	564132.3	4183136.5	2.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003961	0	0.72900E-06	564132.6	4183136.5	2.8	10.00	0.12	4.65	
L0003962	0	0.72900E-06	564132.8	4183136.2	2.8	10.00	0.12	4.65	
L0003963	0	0.72900E-06	564133.0	4183136.2	2.8	10.00	0.12	4.65	
L0003964	0	0.72900E-06	564133.3	4183136.0	2.8	10.00	0.12	4.65	
L0003965	0	0.72900E-06	564133.4	4183136.0	2.8	10.00	0.12	4.65	
L0003966	0	0.72900E-06	564133.7	4183135.8	2.8	10.00	0.12	4.65	
L0003967	0	0.72900E-06	564133.9	4183135.8	2.7	10.00	0.12	4.65	
L0003968	0	0.72900E-06	564134.1	4183135.5	2.7	10.00	0.12	4.65	
L0003969	0	0.72900E-06	564134.4	4183135.5	2.7	10.00	0.12	4.65	
L0003970	0	0.72900E-06	564134.6	4183135.3	2.7	10.00	0.12	4.65	
L0003971	0	0.72900E-06	564134.8	4183135.3	2.7	10.00	0.12	4.65	
L0003972	0	0.72900E-06	564135.0	4183135.3	2.7	10.00	0.12	4.65	
L0003973	0	0.72900E-06	564135.2	4183135.0	2.7	10.00	0.12	4.65	
L0003974	0	0.72900E-06	564135.4	4183135.0	2.6	10.00	0.12	4.65	
L0003975	0	0.72900E-06	564135.7	4183134.8	2.6	10.00	0.12	4.65	
L0003976	0	0.72900E-06	564135.9	4183134.8	2.6	10.00	0.12	4.65	
L0003977	0	0.72900E-06	564136.1	4183134.5	2.6	10.00	0.12	4.65	
L0003978	0	0.72900E-06	564136.4	4183134.5	2.6	10.00	0.12	4.65	
L0003979	0	0.72900E-06	564136.6	4183134.2	2.5	10.00	0.12	4.65	
L0003980	0	0.72900E-06	564136.8	4183134.2	2.5	10.00	0.12	4.65	

L0003981	0	0.72900E-06	564137.0	4183134.0	2.5	10.00	0.12	4.65
L0003982	0	0.72900E-06	564137.2	4183134.0	2.5	10.00	0.12	4.65
L0003983	0	0.72900E-06	564137.5	4183134.0	2.5	10.00	0.12	4.65
L0003984	0	0.72900E-06	564137.7	4183133.8	2.5	10.00	0.12	4.65
L0003985	0	0.72900E-06	564137.9	4183133.8	2.5	10.00	0.12	4.65
L0003986	0	0.72900E-06	564138.1	4183133.5	2.4	10.00	0.12	4.65
L0003987	0	0.72900E-06	564138.4	4183133.5	2.4	10.00	0.12	4.65
L0003988	0	0.72900E-06	564138.6	4183133.2	2.4	10.00	0.12	4.65
L0003989	0	0.72900E-06	564138.8	4183133.2	2.4	10.00	0.12	4.65
L0003990	0	0.72900E-06	564139.1	4183133.0	2.4	10.00	0.12	4.65
L0003991	0	0.72900E-06	564139.3	4183133.0	2.4	10.00	0.12	4.65
L0003992	0	0.72900E-06	564139.5	4183132.8	2.3	10.00	0.12	4.65
L0003993	0	0.72900E-06	564139.7	4183132.8	2.3	10.00	0.12	4.65
L0003994	0	0.72900E-06	564139.9	4183132.8	2.3	10.00	0.12	4.65
L0003995	0	0.72900E-06	564140.1	4183132.5	2.3	10.00	0.12	4.65
L0003996	0	0.72900E-06	564140.4	4183132.5	2.3	10.00	0.12	4.65
L0003997	0	0.72900E-06	564140.6	4183132.2	2.3	10.00	0.12	4.65
L0003998	0	0.72900E-06	564140.8	4183132.2	2.3	10.00	0.12	4.65
L0003999	0	0.72900E-06	564141.1	4183132.0	2.2	10.00	0.12	4.65
L0004000	0	0.72900E-06	564141.2	4183132.0	2.2	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004001	0	0.72900E-06	564141.5	4183131.8	2.2	10.00	0.12	4.65	
L0004002	0	0.72900E-06	564141.7	4183131.8	2.2	10.00	0.12	4.65	
L0004003	0	0.72900E-06	564141.9	4183131.8	2.2	10.00	0.12	4.65	
L0004004	0	0.72900E-06	564142.1	4183131.5	2.2	10.00	0.12	4.65	
L0004005	0	0.72900E-06	564142.4	4183131.5	2.2	10.00	0.12	4.65	
L0004006	0	0.72900E-06	564142.6	4183131.2	2.2	10.00	0.12	4.65	
L0004007	0	0.72900E-06	564142.8	4183131.2	2.2	10.00	0.12	4.65	
L0004008	0	0.72900E-06	564143.1	4183131.0	2.2	10.00	0.12	4.65	
L0004009	0	0.72900E-06	564143.2	4183131.0	2.2	10.00	0.12	4.65	
L0004010	0	0.72900E-06	564143.5	4183130.8	2.2	10.00	0.12	4.65	
L0004011	0	0.72900E-06	564143.7	4183130.8	2.2	10.00	0.12	4.65	
L0004012	0	0.72900E-06	564143.9	4183130.5	2.1	10.00	0.12	4.65	
L0004013	0	0.72900E-06	564144.2	4183130.5	2.0	10.00	0.12	4.65	
L0004014	0	0.72900E-06	564144.4	4183130.5	2.0	10.00	0.12	4.65	
L0004015	0	0.72900E-06	564144.6	4183130.2	2.0	10.00	0.12	4.65	
L0004016	0	0.72900E-06	564144.8	4183130.2	2.0	10.00	0.12	4.65	
L0004017	0	0.72900E-06	564145.1	4183130.0	2.0	10.00	0.12	4.65	
L0004018	0	0.72900E-06	564145.2	4183130.0	2.0	10.00	0.12	4.65	
L0004019	0	0.72900E-06	564145.5	4183129.8	2.0	10.00	0.12	4.65	
L0004020	0	0.72900E-06	564145.8	4183129.8	2.0	10.00	0.12	4.65	

L0004021	0	0.72900E-06	564145.9	4183129.5	2.0	10.00	0.12	4.65
L0004022	0	0.72900E-06	564146.2	4183129.5	2.0	10.00	0.12	4.65
L0004023	0	0.72900E-06	564146.4	4183129.3	2.0	10.00	0.12	4.65
L0004024	0	0.72900E-06	564146.6	4183129.3	2.0	10.00	0.12	4.65
L0004025	0	0.72900E-06	564146.8	4183129.3	2.0	10.00	0.12	4.65
L0004026	0	0.72900E-06	564147.1	4183129.0	2.0	10.00	0.12	4.65
L0004027	0	0.72900E-06	564147.3	4183129.0	2.0	10.00	0.12	4.65
L0004028	0	0.72900E-06	564147.5	4183128.8	2.0	10.00	0.12	4.65
L0004029	0	0.72900E-06	564147.8	4183128.8	2.0	10.00	0.12	4.65
L0004030	0	0.72900E-06	564147.9	4183128.5	2.0	10.00	0.12	4.65
L0004031	0	0.72900E-06	564148.2	4183128.5	2.0	10.00	0.12	4.65
L0004032	0	0.72900E-06	564148.4	4183128.2	1.9	10.00	0.12	4.65
L0004033	0	0.72900E-06	564148.6	4183128.2	1.9	10.00	0.12	4.65
L0004034	0	0.72900E-06	564148.9	4183128.0	1.9	10.00	0.12	4.65
L0004035	0	0.72900E-06	564149.1	4183128.0	1.9	10.00	0.12	4.65
L0004036	0	0.72900E-06	564149.3	4183128.0	1.9	10.00	0.12	4.65
L0004037	0	0.72900E-06	564149.5	4183127.8	1.9	10.00	0.12	4.65
L0004038	0	0.72900E-06	564149.8	4183127.8	1.9	10.00	0.12	4.65
L0004039	0	0.72900E-06	564149.9	4183127.5	1.9	10.00	0.12	4.65
L0004040	0	0.72900E-06	564150.2	4183127.5	1.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0004041	0	0.72900E-06	564150.4	4183127.2	1.9	10.00	0.12	4.65	
L0004042	0	0.72900E-06	564150.6	4183127.2	1.9	10.00	0.12	4.65	
L0004043	0	0.72900E-06	564150.9	4183127.0	1.8	10.00	0.12	4.65	
L0004044	0	0.72900E-06	564151.1	4183127.0	1.8	10.00	0.12	4.65	
L0004045	0	0.72900E-06	564151.3	4183127.0	1.8	10.00	0.12	4.65	
L0004046	0	0.72900E-06	564151.5	4183126.8	1.8	10.00	0.12	4.65	
L0004047	0	0.72900E-06	564151.8	4183126.8	1.8	10.00	0.12	4.65	
L0004048	0	0.72900E-06	564151.9	4183126.5	1.8	10.00	0.12	4.65	
L0004049	0	0.72900E-06	564152.2	4183126.5	1.8	10.00	0.12	4.65	
L0004050	0	0.72900E-06	564152.4	4183126.2	1.8	10.00	0.12	4.65	
L0004051	0	0.72900E-06	564152.6	4183126.2	1.8	10.00	0.12	4.65	
L0004052	0	0.72900E-06	564152.9	4183126.0	1.8	10.00	0.12	4.65	
L0004053	0	0.72900E-06	564153.1	4183126.0	1.8	10.00	0.12	4.65	
L0004054	0	0.72900E-06	564153.3	4183125.8	1.8	10.00	0.12	4.65	
L0004055	0	0.72900E-06	564153.5	4183125.8	1.8	10.00	0.12	4.65	
L0004056	0	0.72900E-06	564153.8	4183125.8	1.8	10.00	0.12	4.65	
L0004057	0	0.72900E-06	564154.0	4183125.5	1.7	10.00	0.12	4.65	
L0004058	0	0.72900E-06	564154.2	4183125.5	1.7	10.00	0.12	4.65	
L0004059	0	0.72900E-06	564154.4	4183125.2	1.7	10.00	0.12	4.65	
L0004060	0	0.72900E-06	564154.6	4183125.2	1.7	10.00	0.12	4.65	

L0004061	0	0.72900E-06	564154.9	4183125.0	1.7	10.00	0.12	4.65
L0004062	0	0.72900E-06	564155.1	4183125.0	1.7	10.00	0.12	4.65
L0004063	0	0.72900E-06	564155.3	4183124.8	1.7	10.00	0.12	4.65
L0004064	0	0.72900E-06	564155.6	4183124.8	1.7	10.00	0.12	4.65
L0004065	0	0.72900E-06	564155.8	4183124.5	1.7	10.00	0.12	4.65
L0004066	0	0.72900E-06	564156.0	4183124.5	1.7	10.00	0.12	4.65
L0004067	0	0.72900E-06	564156.2	4183124.5	1.7	10.00	0.12	4.65
L0004068	0	0.72900E-06	564156.4	4183124.2	1.6	10.00	0.12	4.65
L0004069	0	0.72900E-06	564156.6	4183124.2	1.6	10.00	0.12	4.65
L0004070	0	0.72900E-06	564156.9	4183124.0	1.6	10.00	0.12	4.65
L0004071	0	0.72900E-06	564157.1	4183124.0	1.6	10.00	0.12	4.65
L0004072	0	0.72900E-06	564157.3	4183123.8	1.6	10.00	0.12	4.65
L0004073	0	0.72900E-06	564157.6	4183123.8	1.6	10.00	0.12	4.65
L0004074	0	0.72900E-06	564157.8	4183123.5	1.6	10.00	0.12	4.65
L0004075	0	0.72900E-06	564158.0	4183123.5	1.6	10.00	0.12	4.65
L0004076	0	0.72900E-06	564158.2	4183123.5	1.6	10.00	0.12	4.65
L0004077	0	0.72900E-06	564158.4	4183123.3	1.6	10.00	0.12	4.65
L0004078	0	0.72900E-06	564158.6	4183123.3	1.6	10.00	0.12	4.65
L0004079	0	0.72900E-06	564158.9	4183123.0	1.5	10.00	0.12	4.65
L0004080	0	0.72900E-06	564159.1	4183123.0	1.5	10.00	0.12	4.65

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CONC

RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004081	0	0.72900E-06	564159.3	4183122.8	1.5	10.00	0.12	4.65	
L0004082	0	0.72900E-06	564159.6	4183122.8	1.5	10.00	0.12	4.65	
L0004083	0	0.72900E-06	564159.8	4183122.5	1.5	10.00	0.12	4.65	
L0004084	0	0.72900E-06	564160.0	4183122.5	1.5	10.00	0.12	4.65	
L0004085	0	0.72900E-06	564160.2	4183122.2	1.5	10.00	0.12	4.65	
L0004086	0	0.72900E-06	564160.4	4183122.2	1.5	10.00	0.12	4.65	
L0004087	0	0.72900E-06	564160.7	4183122.2	1.5	10.00	0.12	4.65	
L0004088	0	0.72900E-06	564160.9	4183122.0	1.5	10.00	0.12	4.65	
L0004089	0	0.72900E-06	564161.1	4183122.0	1.5	10.00	0.12	4.65	
L0004090	0	0.72900E-06	564161.3	4183121.8	1.5	10.00	0.12	4.65	
L0004091	0	0.72900E-06	564161.6	4183121.8	1.5	10.00	0.12	4.65	
L0004092	0	0.72900E-06	564161.8	4183121.5	1.4	10.00	0.12	4.65	
L0004093	0	0.72900E-06	564162.0	4183121.5	1.4	10.00	0.12	4.65	
L0004094	0	0.72900E-06	564162.2	4183121.2	1.4	10.00	0.12	4.65	
L0004095	0	0.72900E-06	564162.4	4183121.2	1.4	10.00	0.12	4.65	
L0004096	0	0.72900E-06	564162.7	4183121.0	1.4	10.00	0.12	4.65	
L0004097	0	0.72900E-06	564162.9	4183121.0	1.4	10.00	0.12	4.65	
L0004098	0	0.72900E-06	564163.1	4183121.0	1.4	10.00	0.12	4.65	
L0004099	0	0.72900E-06	564163.3	4183120.8	1.4	10.00	0.12	4.65	
L0004100	0	0.72900E-06	564163.6	4183120.8	1.4	10.00	0.12	4.65	

L0004101	0	0.72900E-06	564163.8	4183120.5	1.4	10.00	0.12	4.65
L0004102	0	0.72900E-06	564164.0	4183120.5	1.4	10.00	0.12	4.65
L0004103	0	0.72900E-06	564164.2	4183120.2	1.4	10.00	0.12	4.65
L0004104	0	0.72900E-06	564164.4	4183120.2	1.4	10.00	0.12	4.65
L0004105	0	0.72900E-06	564164.7	4183120.0	1.3	10.00	0.12	4.65
L0004106	0	0.72900E-06	564164.9	4183120.0	1.3	10.00	0.12	4.65
L0004107	0	0.72900E-06	564165.1	4183119.8	1.3	10.00	0.12	4.65
L0004108	0	0.72900E-06	564165.4	4183119.8	1.3	10.00	0.12	4.65
L0004109	0	0.72900E-06	564165.6	4183119.8	1.3	10.00	0.12	4.65
L0004110	0	0.72900E-06	564165.8	4183119.5	1.3	10.00	0.12	4.65
L0004111	0	0.72900E-06	564166.0	4183119.5	1.3	10.00	0.12	4.65
L0004112	0	0.72900E-06	564166.2	4183119.2	1.3	10.00	0.12	4.65
L0004113	0	0.72900E-06	564166.4	4183119.2	1.3	10.00	0.12	4.65
L0004114	0	0.72900E-06	564166.7	4183119.0	1.3	10.00	0.12	4.65
L0004115	0	0.72900E-06	564166.9	4183119.0	1.3	10.00	0.12	4.65
L0004116	0	0.72900E-06	564167.1	4183118.8	1.3	10.00	0.12	4.65
L0004117	0	0.72900E-06	564167.4	4183118.8	1.3	10.00	0.12	4.65
L0004118	0	0.72900E-06	564167.6	4183118.8	1.3	10.00	0.12	4.65
L0004119	0	0.72900E-06	564167.8	4183118.5	1.2	10.00	0.12	4.65
L0004120	0	0.72900E-06	564168.0	4183118.5	1.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004121	0	0.72900E-06	564168.3	4183118.2	1.0	10.00	0.12	4.65	
L0004122	0	0.72900E-06	564168.4	4183118.2	1.0	10.00	0.12	4.65	
L0004123	0	0.72900E-06	564168.7	4183118.0	1.0	10.00	0.12	4.65	
L0004124	0	0.72900E-06	564168.9	4183118.0	1.0	10.00	0.12	4.65	
L0004125	0	0.72900E-06	564169.1	4183117.8	1.0	10.00	0.12	4.65	
L0004126	0	0.72900E-06	564169.4	4183117.8	1.0	10.00	0.12	4.65	
L0004127	0	0.72900E-06	564169.6	4183117.5	1.0	10.00	0.12	4.65	
L0004128	0	0.72900E-06	564169.8	4183117.5	1.0	10.00	0.12	4.65	
L0004129	0	0.72900E-06	564170.0	4183117.5	1.0	10.00	0.12	4.65	
L0004130	0	0.72900E-06	564170.2	4183117.2	1.0	10.00	0.12	4.65	
L0004131	0	0.72900E-06	564170.5	4183117.2	1.0	10.00	0.12	4.65	
L0004132	0	0.72900E-06	564170.7	4183117.0	1.0	10.00	0.12	4.65	
L0004133	0	0.72900E-06	564170.9	4183117.0	1.0	10.00	0.12	4.65	
L0004134	0	0.72900E-06	564171.1	4183116.8	1.0	10.00	0.12	4.65	
L0004135	0	0.72900E-06	564171.4	4183116.8	1.0	10.00	0.12	4.65	
L0004136	0	0.72900E-06	564171.6	4183116.5	1.0	10.00	0.12	4.65	
L0004137	0	0.72900E-06	564171.8	4183116.5	1.0	10.00	0.12	4.65	
L0004138	0	0.72900E-06	564172.1	4183116.3	1.0	10.00	0.12	4.65	
L0004139	0	0.72900E-06	564172.2	4183116.3	1.0	10.00	0.12	4.65	
L0004140	0	0.72900E-06	564172.5	4183116.3	1.0	10.00	0.12	4.65	

L0004141	0	0.72900E-06	564172.7	4183116.0	1.0	10.00	0.12	4.65
L0004142	0	0.72900E-06	564172.9	4183116.0	1.0	10.00	0.12	4.65
L0004143	0	0.72900E-06	564173.1	4183115.8	1.0	10.00	0.12	4.65
L0004144	0	0.72900E-06	564173.4	4183115.8	1.0	10.00	0.12	4.65
L0004145	0	0.72900E-06	564173.6	4183115.5	1.0	10.00	0.12	4.65
L0004146	0	0.72900E-06	564173.8	4183115.5	1.0	10.00	0.12	4.65
L0004147	0	0.72900E-06	564174.1	4183115.2	1.0	10.00	0.12	4.65
L0004148	0	0.72900E-06	564174.3	4183115.2	1.0	10.00	0.12	4.65
L0004149	0	0.72900E-06	564174.5	4183115.2	1.0	10.00	0.12	4.65
L0004150	0	0.72900E-06	564174.7	4183115.0	1.0	10.00	0.12	4.65
L0004151	0	0.72900E-06	564174.9	4183115.0	1.0	10.00	0.12	4.65
L0004152	0	0.72900E-06	564175.1	4183114.8	1.0	10.00	0.12	4.65
L0004153	0	0.72900E-06	564175.4	4183114.8	1.0	10.00	0.12	4.65
L0004154	0	0.72900E-06	564175.6	4183114.5	1.0	10.00	0.12	4.65
L0004155	0	0.72900E-06	564175.8	4183114.5	1.0	10.00	0.12	4.65
L0004156	0	0.72900E-06	564176.1	4183114.2	1.0	10.00	0.12	4.65
L0004157	0	0.72900E-06	564176.2	4183114.2	1.0	10.00	0.12	4.65
L0004158	0	0.72900E-06	564176.5	4183114.0	1.0	10.00	0.12	4.65
L0004159	0	0.72900E-06	564176.7	4183114.0	1.0	10.00	0.12	4.65
L0004160	0	0.72900E-06	564176.9	4183114.0	1.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004161	0	0.72900E-06	564177.2	4183113.8	1.0	10.00	0.12	4.65	
L0004162	0	0.72900E-06	564177.4	4183113.8	1.0	10.00	0.12	4.65	
L0004163	0	0.72900E-06	564177.6	4183113.5	1.0	10.00	0.12	4.65	
L0004164	0	0.72900E-06	564177.8	4183113.5	1.0	10.00	0.12	4.65	
L0004165	0	0.72900E-06	564178.1	4183113.2	1.0	10.00	0.12	4.65	
L0004166	0	0.72900E-06	564178.3	4183113.2	1.0	10.00	0.12	4.65	
L0004167	0	0.72900E-06	564178.5	4183113.0	1.0	10.00	0.12	4.65	
L0004168	0	0.72900E-06	564178.8	4183113.0	1.0	10.00	0.12	4.65	
L0004169	0	0.72900E-06	564178.9	4183112.8	1.0	10.00	0.12	4.65	
L0004170	0	0.72900E-06	564179.2	4183112.8	1.0	10.00	0.12	4.65	
L0004171	0	0.72900E-06	564179.4	4183112.8	1.0	10.00	0.12	4.65	
L0004172	0	0.72900E-06	564179.6	4183112.5	1.0	10.00	0.12	4.65	
L0004173	0	0.72900E-06	564179.8	4183112.5	1.0	10.00	0.12	4.65	
L0004174	0	0.72900E-06	564180.1	4183112.2	1.0	10.00	0.12	4.65	
L0004175	0	0.72900E-06	564180.3	4183112.2	1.0	10.00	0.12	4.65	
L0004176	0	0.72900E-06	564180.5	4183112.0	1.0	10.00	0.12	4.65	
L0004177	0	0.72900E-06	564180.8	4183112.0	1.0	10.00	0.12	4.65	
L0004178	0	0.72900E-06	564180.9	4183111.8	1.0	10.00	0.12	4.65	
L0004179	0	0.72900E-06	564181.2	4183111.8	1.0	10.00	0.12	4.65	
L0004180	0	0.72900E-06	564181.4	4183111.5	1.0	10.00	0.12	4.65	

L0004181	0	0.72900E-06	564181.6	4183111.5	1.0	10.00	0.12	4.65
L0004182	0	0.72900E-06	564181.9	4183111.5	1.0	10.00	0.12	4.65
L0004183	0	0.72900E-06	564182.1	4183111.2	1.0	10.00	0.12	4.65
L0004184	0	0.72900E-06	564182.3	4183111.2	1.0	10.00	0.12	4.65
L0004185	0	0.72900E-06	564182.5	4183111.0	1.0	10.00	0.12	4.65
L0004186	0	0.72900E-06	564182.8	4183111.0	1.0	10.00	0.12	4.65
L0004187	0	0.72900E-06	564182.9	4183110.8	1.0	10.00	0.12	4.65
L0004188	0	0.72900E-06	564183.2	4183110.8	1.0	10.00	0.12	4.65
L0004189	0	0.72900E-06	564183.4	4183110.5	1.0	10.00	0.12	4.65
L0004190	0	0.72900E-06	564183.6	4183110.5	1.0	10.00	0.12	4.65
L0004191	0	0.72900E-06	564183.9	4183110.5	1.0	10.00	0.12	4.65
L0004192	0	0.72900E-06	564184.1	4183110.3	1.0	10.00	0.12	4.65
L0004193	0	0.72900E-06	564184.3	4183110.3	1.0	10.00	0.12	4.65
L0004194	0	0.72900E-06	564184.5	4183110.0	1.0	10.00	0.12	4.65
L0004195	0	0.72900E-06	564184.8	4183110.0	1.0	10.00	0.12	4.65
L0004196	0	0.72900E-06	564184.9	4183109.8	1.0	10.00	0.12	4.65
L0004197	0	0.72900E-06	564185.2	4183109.8	1.0	10.00	0.12	4.65
L0004198	0	0.72900E-06	564185.4	4183109.5	1.0	10.00	0.12	4.65
L0004199	0	0.72900E-06	564185.6	4183109.5	1.0	10.00	0.12	4.65
L0004200	0	0.72900E-06	564185.9	4183109.2	1.0	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0004201	0	0.72900E-06	564186.1	4183109.2	1.0	10.00	0.12	4.65	
L0004202	0	0.72900E-06	564186.3	4183109.2	1.0	10.00	0.12	4.65	
L0004203	0	0.72900E-06	564186.5	4183109.0	1.0	10.00	0.12	4.65	
L0004204	0	0.72900E-06	564186.8	4183109.0	1.0	10.00	0.12	4.65	
L0004205	0	0.72900E-06	564187.0	4183108.8	1.0	10.00	0.12	4.65	
L0004206	0	0.72900E-06	564187.2	4183108.8	1.0	10.00	0.12	4.65	
L0004207	0	0.72900E-06	564187.4	4183108.5	1.0	10.00	0.12	4.65	
L0004208	0	0.72900E-06	564187.6	4183108.5	1.0	10.00	0.12	4.65	
L0004209	0	0.72900E-06	564187.9	4183108.2	1.0	10.00	0.12	4.65	
L0004210	0	0.72900E-06	564188.1	4183108.2	1.0	10.00	0.12	4.65	
L0004211	0	0.72900E-06	564188.3	4183108.0	1.0	10.00	0.12	4.65	
L0004212	0	0.72900E-06	564188.6	4183108.0	1.0	10.00	0.12	4.65	
L0004213	0	0.72900E-06	564188.8	4183108.0	1.0	10.00	0.12	4.65	
L0004214	0	0.72900E-06	564189.0	4183107.8	1.0	10.00	0.12	4.65	
L0004215	0	0.72900E-06	564189.2	4183107.8	1.0	10.00	0.12	4.65	
L0004216	0	0.72900E-06	564189.4	4183107.5	1.0	10.00	0.12	4.65	
L0004217	0	0.72900E-06	564189.6	4183107.5	1.0	10.00	0.12	4.65	
L0004218	0	0.72900E-06	564189.9	4183107.2	1.0	10.00	0.12	4.65	
L0004219	0	0.72900E-06	564190.1	4183107.2	1.0	10.00	0.12	4.65	
L0004220	0	0.72900E-06	564190.3	4183107.0	1.0	10.00	0.12	4.65	

L0004221	0	0.72900E-06	564190.6	4183107.0	1.0	10.00	0.12	4.65
L0004222	0	0.72900E-06	564190.8	4183106.8	1.0	10.00	0.12	4.65
L0004223	0	0.72900E-06	564191.0	4183106.8	1.0	10.00	0.12	4.65
L0004224	0	0.72900E-06	564191.2	4183106.8	1.0	10.00	0.12	4.65
L0004225	0	0.72900E-06	564191.4	4183106.5	1.0	10.00	0.12	4.65
L0004226	0	0.72900E-06	564191.7	4183106.5	1.0	10.00	0.12	4.65
L0004227	0	0.72900E-06	564191.9	4183106.2	1.0	10.00	0.12	4.65
L0004228	0	0.72900E-06	564192.1	4183106.2	0.9	10.00	0.12	4.65
L0004229	0	0.72900E-06	564192.3	4183106.0	0.9	10.00	0.12	4.65
L0004230	0	0.72900E-06	564192.6	4183106.0	0.9	10.00	0.12	4.65
L0004231	0	0.72900E-06	564192.8	4183105.8	0.9	10.00	0.12	4.65
L0004232	0	0.72900E-06	564193.0	4183105.8	0.9	10.00	0.12	4.65
L0004233	0	0.72900E-06	564193.2	4183105.8	0.9	10.00	0.12	4.65
L0004234	0	0.72900E-06	564193.4	4183105.5	0.9	10.00	0.12	4.65
L0004235	0	0.72900E-06	564193.7	4183105.5	0.9	10.00	0.12	4.65
L0004236	0	0.72900E-06	564193.9	4183105.2	0.9	10.00	0.12	4.65
L0004237	0	0.72900E-06	564194.1	4183105.2	0.9	10.00	0.12	4.65
L0004238	0	0.72900E-06	564194.3	4183105.0	0.9	10.00	0.12	4.65
L0004239	0	0.72900E-06	564194.6	4183105.0	0.9	10.00	0.12	4.65
L0004240	0	0.72900E-06	564194.8	4183104.8	0.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0004241	0	0.72900E-06	564195.0	4183104.8	0.9	10.00	0.12	4.65	
L0004242	0	0.72900E-06	564195.2	4183104.5	1.0	10.00	0.12	4.65	
L0004243	0	0.72900E-06	564195.4	4183104.5	1.0	10.00	0.12	4.65	
L0004244	0	0.72900E-06	564195.7	4183104.5	1.0	10.00	0.12	4.65	
L0004245	0	0.72900E-06	564195.9	4183104.2	1.0	10.00	0.12	4.65	
L0004246	0	0.72900E-06	564196.1	4183104.2	1.0	10.00	0.12	4.65	
L0004247	0	0.72900E-06	564196.3	4183104.0	1.0	10.00	0.12	4.65	
L0004248	0	0.72900E-06	564196.6	4183104.0	1.0	10.00	0.12	4.65	
L0004249	0	0.72900E-06	564196.8	4183103.8	1.0	10.00	0.12	4.65	
L0004250	0	0.72900E-06	564197.0	4183103.8	1.0	10.00	0.12	4.65	
L0004251	0	0.72900E-06	564197.3	4183103.5	1.0	10.00	0.12	4.65	
L0004252	0	0.72900E-06	564197.4	4183103.5	1.0	10.00	0.12	4.65	
L0004253	0	0.72900E-06	564197.7	4183103.2	1.0	10.00	0.12	4.65	
L0004254	0	0.72900E-06	564197.9	4183103.2	1.0	10.00	0.12	4.65	
L0004255	0	0.72900E-06	564198.1	4183103.2	1.0	10.00	0.12	4.65	
L0004256	0	0.72900E-06	564198.4	4183103.0	1.0	10.00	0.12	4.65	
L0004257	0	0.72900E-06	564198.6	4183103.0	1.0	10.00	0.12	4.65	
L0004258	0	0.72900E-06	564198.8	4183102.8	1.0	10.00	0.12	4.65	
L0004259	0	0.72900E-06	564199.0	4183102.8	1.0	10.00	0.12	4.65	
L0004260	0	0.72900E-06	564199.2	4183102.5	1.0	10.00	0.12	4.65	

L0004261	0	0.72900E-06	564199.4	4183102.5	1.0	10.00	0.12	4.65
L0004262	0	0.72900E-06	564199.7	4183102.2	1.0	10.00	0.12	4.65
L0004263	0	0.72900E-06	564199.9	4183102.2	1.0	10.00	0.12	4.65
L0004264	0	0.72900E-06	564200.1	4183102.2	1.0	10.00	0.12	4.65
L0004265	0	0.72900E-06	564200.4	4183102.0	1.0	10.00	0.12	4.65
L0004266	0	0.72900E-06	564200.6	4183102.0	1.0	10.00	0.12	4.65
L0004267	0	0.72900E-06	564200.8	4183101.8	1.0	10.00	0.12	4.65
L0004268	0	0.72900E-06	564201.0	4183101.8	1.0	10.00	0.12	4.65
L0004269	0	0.72900E-06	564201.2	4183101.5	1.0	10.00	0.12	4.65
L0004270	0	0.72900E-06	564201.4	4183101.5	1.0	10.00	0.12	4.65
L0004271	0	0.72900E-06	564201.7	4183101.2	1.0	10.00	0.12	4.65
L0004272	0	0.72900E-06	564201.9	4183101.2	1.0	10.00	0.12	4.65
L0004273	0	0.72900E-06	564202.1	4183101.0	1.0	10.00	0.12	4.65
L0004274	0	0.72900E-06	564202.4	4183101.0	1.0	10.00	0.12	4.65
L0004275	0	0.72900E-06	564202.6	4183101.0	1.0	10.00	0.12	4.65
L0004276	0	0.72900E-06	564202.8	4183100.8	1.0	10.00	0.12	4.65
L0004277	0	0.72900E-06	564203.0	4183100.8	1.0	10.00	0.12	4.65
L0004278	0	0.72900E-06	564203.3	4183100.5	1.0	10.00	0.12	4.65
L0004279	0	0.72900E-06	564203.5	4183100.5	1.0	10.00	0.12	4.65
L0004280	0	0.72900E-06	564203.7	4183100.2	1.0	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004281	0	0.72900E-06	564203.9	4183100.2	1.0	10.00	0.12	4.65	
L0004282	0	0.72900E-06	564204.1	4183100.0	1.0	10.00	0.12	4.65	
L0004283	0	0.72900E-06	564204.4	4183100.0	1.0	10.00	0.12	4.65	
L0004284	0	0.72900E-06	564204.6	4183099.8	1.0	10.00	0.12	4.65	
L0004285	0	0.72900E-06	564204.8	4183099.8	1.0	10.00	0.12	4.65	
L0004286	0	0.72900E-06	564205.1	4183099.8	1.0	10.00	0.12	4.65	
L0004287	0	0.72900E-06	564205.2	4183099.5	1.0	10.00	0.12	4.65	
L0004288	0	0.72900E-06	564205.5	4183099.5	0.9	10.00	0.12	4.65	
L0004289	0	0.72900E-06	564205.7	4183099.2	0.9	10.00	0.12	4.65	
L0004290	0	0.72900E-06	564205.9	4183099.2	0.9	10.00	0.12	4.65	
L0004291	0	0.72900E-06	564206.1	4183099.0	0.9	10.00	0.12	4.65	
L0004292	0	0.72900E-06	564206.4	4183099.0	0.9	10.00	0.12	4.65	
L0004293	0	0.72900E-06	564206.6	4183098.8	0.9	10.00	0.12	4.65	
L0004294	0	0.72900E-06	564206.8	4183098.8	0.9	10.00	0.12	4.65	
L0004295	0	0.72900E-06	564207.1	4183098.5	0.9	10.00	0.12	4.65	
L0004296	0	0.72900E-06	564207.2	4183098.5	0.9	10.00	0.12	4.65	
L0004297	0	0.72900E-06	564207.5	4183098.5	0.9	10.00	0.12	4.65	
L0004298	0	0.72900E-06	564207.7	4183098.2	0.9	10.00	0.12	4.65	
L0004299	0	0.72900E-06	564207.9	4183098.2	0.9	10.00	0.12	4.65	
L0004300	0	0.72900E-06	564208.2	4183098.0	0.9	10.00	0.12	4.65	

L0004301	0	0.72900E-06	564208.4	4183098.0	0.9	10.00	0.12	4.65
L0004302	0	0.72900E-06	564208.6	4183097.8	0.9	10.00	0.12	4.65
L0004303	0	0.72900E-06	564208.8	4183097.8	0.9	10.00	0.12	4.65
L0004304	0	0.72900E-06	564209.1	4183097.5	0.9	10.00	0.12	4.65
L0004305	0	0.72900E-06	564209.3	4183097.5	0.9	10.00	0.12	4.65
L0004306	0	0.72900E-06	564209.5	4183097.5	0.9	10.00	0.12	4.65
L0004307	0	0.72900E-06	564209.7	4183097.3	0.9	10.00	0.12	4.65
L0004308	0	0.72900E-06	564209.9	4183097.3	0.9	10.00	0.12	4.65
L0004309	0	0.72900E-06	564210.2	4183097.0	0.9	10.00	0.12	4.65
L0004310	0	0.72900E-06	564210.4	4183097.0	0.9	10.00	0.12	4.65
L0004311	0	0.72900E-06	564210.6	4183096.8	0.9	10.00	0.12	4.65
L0004312	0	0.72900E-06	564210.8	4183096.8	0.9	10.00	0.12	4.65
L0004313	0	0.72900E-06	564211.1	4183096.5	0.9	10.00	0.12	4.65
L0004314	0	0.72900E-06	564211.2	4183096.5	0.9	10.00	0.12	4.65
L0004315	0	0.72900E-06	564211.5	4183096.2	0.9	10.00	0.12	4.65
L0004316	0	0.72900E-06	564211.8	4183096.2	0.9	10.00	0.12	4.65
L0004317	0	0.72900E-06	564211.9	4183096.2	0.9	10.00	0.12	4.65
L0004318	0	0.72900E-06	564212.2	4183096.0	0.9	10.00	0.12	4.65
L0004319	0	0.72900E-06	564212.4	4183096.0	0.9	10.00	0.12	4.65
L0004320	0	0.72900E-06	564212.6	4183095.8	0.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004321	0	0.72900E-06	564212.8	4183095.8	0.9	10.00	0.12	4.65	
L0004322	0	0.72900E-06	564213.1	4183095.5	0.9	10.00	0.12	4.65	
L0004323	0	0.72900E-06	564213.3	4183095.5	0.9	10.00	0.12	4.65	
L0004324	0	0.72900E-06	564213.5	4183095.2	0.9	10.00	0.12	4.65	
L0004325	0	0.72900E-06	564213.8	4183095.2	0.9	10.00	0.12	4.65	
L0004326	0	0.72900E-06	564213.9	4183095.0	0.9	10.00	0.12	4.65	
L0004327	0	0.72900E-06	564214.2	4183095.0	0.9	10.00	0.12	4.65	
L0004328	0	0.72900E-06	564214.4	4183095.0	0.9	10.00	0.12	4.65	
L0004329	0	0.72900E-06	564214.6	4183094.8	0.9	10.00	0.12	4.65	
L0004330	0	0.72900E-06	564214.9	4183094.8	0.9	10.00	0.12	4.65	
L0004331	0	0.72900E-06	564215.1	4183094.5	0.9	10.00	0.12	4.65	
L0004332	0	0.72900E-06	564215.3	4183094.5	0.9	10.00	0.12	4.65	
L0004333	0	0.72900E-06	564215.5	4183094.2	0.9	10.00	0.12	4.65	
L0004334	0	0.72900E-06	564215.8	4183094.2	0.9	10.00	0.12	4.65	
L0004335	0	0.72900E-06	564215.9	4183094.0	0.9	10.00	0.12	4.65	
L0004336	0	0.72900E-06	564216.2	4183094.0	-0.9	10.00	0.12	4.65	
L0004337	0	0.72900E-06	564216.4	4183093.8	-0.9	10.00	0.12	4.65	
L0004338	0	0.72900E-06	564216.6	4183093.8	-0.9	10.00	0.12	4.65	
L0004339	0	0.72900E-06	564216.9	4183093.8	-0.9	10.00	0.12	4.65	
L0004340	0	0.72900E-06	564217.1	4183093.5	-0.9	10.00	0.12	4.65	

L0004341	0	0.72900E-06	564217.3	4183093.5	-0.9	10.00	0.12	4.65
L0004342	0	0.72900E-06	564217.5	4183093.2	-0.9	10.00	0.12	4.65
L0004343	0	0.72900E-06	564217.8	4183093.2	-0.9	10.00	0.12	4.65
L0004344	0	0.72900E-06	564218.0	4183093.0	-0.9	10.00	0.12	4.65
L0004345	0	0.72900E-06	564218.2	4183093.0	-0.9	10.00	0.12	4.65
L0004346	0	0.72900E-06	564218.4	4183092.8	-0.9	10.00	0.12	4.65
L0004347	0	0.72900E-06	564218.6	4183092.8	-0.9	10.00	0.12	4.65
L0004348	0	0.72900E-06	564218.9	4183092.8	-0.9	10.00	0.12	4.65
L0004349	0	0.72900E-06	564219.1	4183092.5	-0.9	10.00	0.12	4.65
L0004350	0	0.72900E-06	564219.3	4183092.5	-0.9	10.00	0.12	4.65
L0004351	0	0.72900E-06	564219.5	4183092.2	-0.9	10.00	0.12	4.65
L0004352	0	0.72900E-06	564219.8	4183092.2	-0.9	10.00	0.12	4.65
L0004353	0	0.72900E-06	564220.0	4183092.0	-0.9	10.00	0.12	4.65
L0004354	0	0.72900E-06	564220.2	4183092.0	-0.9	10.00	0.12	4.65
L0004355	0	0.72900E-06	564220.4	4183091.8	-0.9	10.00	0.12	4.65
L0004356	0	0.72900E-06	564220.6	4183091.8	-0.9	10.00	0.12	4.65
L0004357	0	0.72900E-06	564220.9	4183091.5	-0.9	10.00	0.12	4.65
L0004358	0	0.72900E-06	564221.1	4183091.5	-0.9	10.00	0.12	4.65
L0004359	0	0.72900E-06	564221.3	4183091.5	-0.9	10.00	0.12	4.65
L0004360	0	0.72900E-06	564221.6	4183091.3	-0.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004361	0	0.72900E-06	564221.8	4183091.3	-0.9	10.00	0.12	4.65	
L0004362	0	0.72900E-06	564222.0	4183091.0	-0.9	10.00	0.12	4.65	
L0004363	0	0.72900E-06	564222.2	4183091.0	-0.9	10.00	0.12	4.65	
L0004364	0	0.72900E-06	564222.4	4183090.8	-0.9	10.00	0.12	4.65	
L0004365	0	0.72900E-06	564222.6	4183090.8	-0.9	10.00	0.12	4.65	
L0004366	0	0.72900E-06	564222.9	4183090.5	-0.9	10.00	0.12	4.65	
L0004367	0	0.72900E-06	564223.1	4183090.5	-0.9	10.00	0.12	4.65	
L0004368	0	0.72900E-06	564223.3	4183090.2	-0.9	10.00	0.12	4.65	
L0004369	0	0.72900E-06	564223.6	4183090.2	-0.9	10.00	0.12	4.65	
L0004370	0	0.72900E-06	564223.8	4183090.2	-0.9	10.00	0.12	4.65	
L0004371	0	0.72900E-06	564224.0	4183090.0	-0.9	10.00	0.12	4.65	
L0004372	0	0.72900E-06	564224.2	4183090.0	-0.9	10.00	0.12	4.65	
L0004373	0	0.72900E-06	564224.4	4183089.8	-0.9	10.00	0.12	4.65	
L0004374	0	0.72900E-06	564224.7	4183089.8	-0.9	10.00	0.12	4.65	
L0004375	0	0.72900E-06	564224.9	4183089.5	-0.9	10.00	0.12	4.65	
L0004376	0	0.72900E-06	564225.1	4183089.5	-0.9	10.00	0.12	4.65	
L0004377	0	0.72900E-06	564225.3	4183089.2	-0.9	10.00	0.12	4.65	
L0004378	0	0.72900E-06	564225.6	4183089.2	-0.9	10.00	0.12	4.65	
L0004379	0	0.72900E-06	564225.8	4183089.2	-0.9	10.00	0.12	4.65	
L0004380	0	0.72900E-06	564226.0	4183089.0	-0.9	10.00	0.12	4.65	

L0004381	0	0.72900E-06	564226.2	4183089.0	-0.9	10.00	0.12	4.65
L0004382	0	0.72900E-06	564226.4	4183088.8	-0.9	10.00	0.12	4.65
L0004383	0	0.72900E-06	564226.7	4183088.8	-0.9	10.00	0.12	4.65
L0004384	0	0.72900E-06	564226.9	4183088.5	-0.9	10.00	0.12	4.65
L0004385	0	0.72900E-06	564227.1	4183088.5	-0.9	10.00	0.12	4.65
L0004386	0	0.72900E-06	564227.3	4183088.2	-0.9	10.00	0.12	4.65
L0004387	0	0.72900E-06	564227.6	4183088.2	-0.9	10.00	0.12	4.65
L0004388	0	0.72900E-06	564227.8	4183088.0	-0.9	10.00	0.12	4.65
L0004389	0	0.72900E-06	564228.0	4183088.0	-0.9	10.00	0.12	4.65
L0004390	0	0.72900E-06	564228.3	4183088.0	-0.9	10.00	0.12	4.65
L0004391	0	0.72900E-06	564228.4	4183087.8	-0.9	10.00	0.12	4.65
L0004392	0	0.72900E-06	564228.7	4183087.8	-0.9	10.00	0.12	4.65
L0004393	0	0.72900E-06	564228.9	4183087.5	-0.9	10.00	0.12	4.65
L0004394	0	0.72900E-06	564229.1	4183087.5	-0.9	10.00	0.12	4.65
L0004395	0	0.72900E-06	564229.3	4183087.2	-0.9	10.00	0.12	4.65
L0004396	0	0.72900E-06	564229.6	4183087.2	-0.9	10.00	0.12	4.65
L0004397	0	0.72900E-06	564229.8	4183087.0	-0.9	10.00	0.12	4.65
L0004398	0	0.72900E-06	564230.0	4183087.0	-0.9	10.00	0.12	4.65
L0004399	0	0.72900E-06	564230.2	4183086.8	-0.9	10.00	0.12	4.65
L0004400	0	0.72900E-06	564230.4	4183086.8	-0.9	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004401	0	0.72900E-06	564230.7	4183086.8	-0.9	10.00	0.12	4.65	
L0004402	0	0.72900E-06	564230.9	4183086.5	-0.9	10.00	0.12	4.65	
L0004403	0	0.72900E-06	564231.1	4183086.5	-0.9	10.00	0.12	4.65	
L0004404	0	0.72900E-06	564231.4	4183086.2	-0.9	10.00	0.12	4.65	
L0004405	0	0.72900E-06	564231.6	4183086.2	-0.9	10.00	0.12	4.65	
L0004406	0	0.72900E-06	564231.8	4183086.0	-0.9	10.00	0.12	4.65	
L0004407	0	0.72900E-06	564232.0	4183086.0	-0.9	10.00	0.12	4.65	
L0004408	0	0.72900E-06	564232.2	4183085.8	-0.9	10.00	0.12	4.65	
L0004409	0	0.72900E-06	564232.4	4183085.8	-0.9	10.00	0.12	4.65	
L0004410	0	0.72900E-06	564232.7	4183085.5	-0.9	10.00	0.12	4.65	
L0004411	0	0.72900E-06	564232.9	4183085.5	-0.9	10.00	0.12	4.65	
L0004412	0	0.72900E-06	564233.1	4183085.5	-0.9	10.00	0.12	4.65	
L0004413	0	0.72900E-06	564233.4	4183085.2	-0.9	10.00	0.12	4.65	
L0004414	0	0.72900E-06	564233.6	4183085.2	-0.9	10.00	0.12	4.65	
L0004415	0	0.72900E-06	564233.8	4183085.0	-0.9	10.00	0.12	4.65	
L0004416	0	0.72900E-06	564234.0	4183085.0	-0.9	10.00	0.12	4.65	
L0004417	0	0.72900E-06	564234.2	4183084.8	-0.9	10.00	0.12	4.65	
L0004418	0	0.72900E-06	564234.5	4183084.8	-0.9	10.00	0.12	4.65	
L0004419	0	0.72900E-06	564234.7	4183084.5	-0.9	10.00	0.12	4.65	
L0004420	0	0.72900E-06	564234.9	4183084.5	-0.9	10.00	0.12	4.65	

L0004421	0	0.72900E-06	564235.1	4183084.5	-0.9	10.00	0.12	4.65
L0004422	0	0.72900E-06	564235.4	4183084.2	-0.9	10.00	0.12	4.65
L0004423	0	0.72900E-06	564235.6	4183084.2	-0.9	10.00	0.12	4.65
L0004424	0	0.72900E-06	564235.8	4183084.0	-0.9	10.00	0.12	4.65
L0004425	0	0.72900E-06	564236.0	4183084.0	-0.9	10.00	0.12	4.65
L0004426	0	0.72900E-06	564236.2	4183083.8	-0.9	10.00	0.12	4.65
L0004427	0	0.72900E-06	564236.5	4183083.8	-0.9	10.00	0.12	4.65
L0004428	0	0.72900E-06	564236.7	4183083.5	-0.9	10.00	0.12	4.65
L0004429	0	0.72900E-06	564236.9	4183083.5	-0.9	10.00	0.12	4.65
L0004430	0	0.72900E-06	564237.1	4183083.2	-0.9	10.00	0.12	4.65
L0004431	0	0.72900E-06	564237.4	4183083.2	-0.9	10.00	0.12	4.65
L0004432	0	0.72900E-06	564237.6	4183083.2	-0.9	10.00	0.12	4.65
L0004433	0	0.72900E-06	564237.8	4183083.0	-0.9	10.00	0.12	4.65
L0004434	0	0.72900E-06	564238.1	4183083.0	-0.8	10.00	0.12	4.65
L0004435	0	0.72900E-06	564238.2	4183082.8	-0.8	10.00	0.12	4.65
L0004436	0	0.72900E-06	564238.5	4183082.8	-0.8	10.00	0.12	4.65
L0004437	0	0.72900E-06	564238.7	4183082.5	-0.8	10.00	0.12	4.65
L0004438	0	0.72900E-06	564238.9	4183082.5	-0.8	10.00	0.12	4.65
L0004439	0	0.72900E-06	564239.1	4183082.2	-0.8	10.00	0.12	4.65
L0004440	0	0.72900E-06	564239.4	4183082.2	-0.8	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004441	0	0.72900E-06	564239.6	4183082.0	-0.8	10.00	0.12	4.65	
L0004442	0	0.72900E-06	564239.8	4183082.0	-0.8	10.00	0.12	4.65	
L0004443	0	0.72900E-06	564240.1	4183082.0	-0.7	10.00	0.12	4.65	
L0004444	0	0.72900E-06	564240.2	4183081.8	-0.8	10.00	0.12	4.65	
L0004445	0	0.72900E-06	564240.5	4183081.8	-0.8	10.00	0.12	4.65	
L0004446	0	0.72900E-06	564240.7	4183081.5	-0.8	10.00	0.12	4.65	
L0004447	0	0.72900E-06	564240.9	4183081.5	-0.8	10.00	0.12	4.65	
L0004448	0	0.72900E-06	564241.2	4183081.2	-0.8	10.00	0.12	4.65	
L0004449	0	0.72900E-06	564241.4	4183081.2	-0.8	10.00	0.12	4.65	
L0004450	0	0.72900E-06	564241.6	4183081.0	-0.8	10.00	0.12	4.65	
L0004451	0	0.72900E-06	564241.8	4183081.0	-0.8	10.00	0.12	4.65	
L0004452	0	0.72900E-06	564242.1	4183080.8	-0.8	10.00	0.12	4.65	
L0004453	0	0.72900E-06	564242.2	4183080.8	-0.8	10.00	0.12	4.65	
L0004454	0	0.72900E-06	564242.5	4183080.8	-0.8	10.00	0.12	4.65	
L0004455	0	0.72900E-06	564242.8	4183080.5	-0.8	10.00	0.12	4.65	
L0004456	0	0.72900E-06	564242.9	4183080.5	-0.9	10.00	0.12	4.65	
L0004457	0	0.72900E-06	564243.2	4183080.2	-0.9	10.00	0.12	4.65	
L0004458	0	0.72900E-06	564243.4	4183080.2	-0.9	10.00	0.12	4.65	
L0004459	0	0.72900E-06	564243.6	4183080.0	-0.9	10.00	0.12	4.65	
L0004460	0	0.72900E-06	564243.8	4183080.0	-0.9	10.00	0.12	4.65	

L0004461	0	0.72900E-06	564244.1	4183079.8	-0.8	10.00	0.12	4.65
L0004462	0	0.72900E-06	564244.3	4183079.8	-0.9	10.00	0.12	4.65
L0004463	0	0.72900E-06	564244.5	4183079.8	-0.9	10.00	0.12	4.65
L0004464	0	0.72900E-06	564244.8	4183079.5	-0.9	10.00	0.12	4.65
L0004465	0	0.72900E-06	564244.9	4183079.5	-0.9	10.00	0.12	4.65
L0004466	0	0.72900E-06	564245.2	4183079.2	-0.9	10.00	0.12	4.65
L0004467	0	0.72900E-06	564245.4	4183079.2	-0.9	10.00	0.12	4.65
L0004468	0	0.72900E-06	564245.6	4183079.0	-0.9	10.00	0.12	4.65
L0004469	0	0.72900E-06	564245.8	4183079.0	-0.9	10.00	0.12	4.65
L0004470	0	0.72900E-06	564246.1	4183078.8	-0.9	10.00	0.12	4.65
L0004471	0	0.72900E-06	564246.3	4183078.8	-0.9	10.00	0.12	4.65
L0004472	0	0.72900E-06	564246.5	4183078.5	-0.9	10.00	0.12	4.65
L0004473	0	0.72900E-06	564246.8	4183078.5	-0.9	10.00	0.12	4.65
L0004474	0	0.72900E-06	564246.9	4183078.5	-0.9	10.00	0.12	4.65
L0004475	0	0.72900E-06	564247.2	4183078.3	-0.9	10.00	0.12	4.65
L0004476	0	0.72900E-06	564247.4	4183078.3	-0.9	10.00	0.12	4.65
L0004477	0	0.72900E-06	564247.6	4183078.0	-0.9	10.00	0.12	4.65
L0004478	0	0.72900E-06	564247.9	4183078.0	-0.9	10.00	0.12	4.65
L0004479	0	0.72900E-06	564248.1	4183077.8	-0.9	10.00	0.12	4.65
L0004480	0	0.72900E-06	564248.3	4183077.8	-0.9	10.00	0.12	4.65

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DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004481	0	0.72900E-06	564248.5	4183077.5	-0.9	10.00	0.12	4.65	
L0004482	0	0.72900E-06	564248.8	4183077.5	-0.9	10.00	0.12	4.65	
L0004483	0	0.72900E-06	564248.9	4183077.2	-0.9	10.00	0.12	4.65	
L0004484	0	0.72900E-06	564249.2	4183077.2	-0.9	10.00	0.12	4.65	
L0004485	0	0.72900E-06	564249.4	4183077.2	-0.9	10.00	0.12	4.65	
L0004486	0	0.72900E-06	564249.6	4183077.0	-0.9	10.00	0.12	4.65	
L0004487	0	0.72900E-06	564249.9	4183077.0	-0.9	10.00	0.12	4.65	
L0004488	0	0.72900E-06	564250.1	4183076.8	-0.9	10.00	0.12	4.65	
L0004489	0	0.72900E-06	564250.3	4183076.8	-0.9	10.00	0.12	4.65	
L0004490	0	0.72900E-06	564250.5	4183076.5	-0.9	10.00	0.12	4.65	
L0004491	0	0.72900E-06	564250.8	4183076.5	-0.9	10.00	0.12	4.65	
L0004492	0	0.72900E-06	564251.0	4183076.2	-0.9	10.00	0.12	4.65	
L0004493	0	0.72900E-06	564251.2	4183076.2	-0.9	10.00	0.12	4.65	
L0004494	0	0.72900E-06	564251.4	4183076.2	-0.9	10.00	0.12	4.65	
L0004495	0	0.72900E-06	564251.6	4183076.0	-0.9	10.00	0.12	4.65	
L0004496	0	0.72900E-06	564251.9	4183076.0	-0.9	10.00	0.12	4.65	
L0004497	0	0.72900E-06	564252.1	4183075.8	-0.9	10.00	0.12	4.65	
L0004498	0	0.72900E-06	564252.3	4183075.8	-0.8	10.00	0.12	4.65	
L0004499	0	0.72900E-06	564252.5	4183075.5	-0.8	10.00	0.12	4.65	
L0004500	0	0.72900E-06	564252.8	4183075.5	-0.8	10.00	0.12	4.65	

L0004501	0	0.72900E-06	564253.0	4183075.2	-0.8	10.00	0.12	4.65
L0004502	0	0.72900E-06	564253.2	4183075.2	-0.8	10.00	0.12	4.65
L0004503	0	0.72900E-06	564253.4	4183075.0	-0.8	10.00	0.12	4.65
L0004504	0	0.72900E-06	564253.6	4183075.0	-0.7	10.00	0.12	4.65
L0004505	0	0.72900E-06	564253.9	4183075.0	-0.7	10.00	0.12	4.65
L0004506	0	0.72900E-06	564254.1	4183074.8	-0.7	10.00	0.12	4.65
L0004507	0	0.72900E-06	564254.3	4183074.8	-0.7	10.00	0.12	4.65
L0004508	0	0.72900E-06	564254.6	4183074.5	-0.6	10.00	0.12	4.65
L0004509	0	0.72900E-06	564254.8	4183074.5	-0.6	10.00	0.12	4.65
L0004510	0	0.72900E-06	564255.0	4183074.2	-0.6	10.00	0.12	4.65
L0004511	0	0.72900E-06	564255.2	4183074.2	-0.5	10.00	0.12	4.65
L0004512	0	0.72900E-06	564255.4	4183074.0	-0.5	10.00	0.12	4.65
L0004513	0	0.72900E-06	564255.6	4183074.0	-0.5	10.00	0.12	4.65
L0004514	0	0.72900E-06	564255.9	4183073.8	-0.4	10.00	0.12	4.65
L0004515	0	0.72900E-06	564256.1	4183073.8	-0.4	10.00	0.12	4.65
L0004516	0	0.72900E-06	564256.3	4183073.8	-0.4	10.00	0.12	4.65
L0004517	0	0.72900E-06	564256.6	4183073.5	-0.3	10.00	0.12	4.65
L0004518	0	0.72900E-06	564256.8	4183073.5	-0.3	10.00	0.12	4.65
L0004519	0	0.72900E-06	564257.0	4183073.2	-0.2	10.00	0.12	4.65
L0004520	0	0.72900E-06	564257.2	4183073.2	-0.2	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004521	0	0.72900E-06	564257.4	4183073.0	-0.2	10.00	0.12	4.65	
L0004522	0	0.72900E-06	564257.7	4183073.0	-0.1	10.00	0.12	4.65	
L0004523	0	0.72900E-06	564257.9	4183072.8	-0.1	10.00	0.12	4.65	
L0004524	0	0.72900E-06	564258.1	4183072.8	0.0	10.00	0.12	4.65	
L0004525	0	0.72900E-06	564258.3	4183072.5	0.0	10.00	0.12	4.65	
L0004526	0	0.72900E-06	564258.6	4183072.5	0.1	10.00	0.12	4.65	
L0004527	0	0.72900E-06	564258.8	4183072.5	0.1	10.00	0.12	4.65	
L0004528	0	0.72900E-06	564259.0	4183072.3	0.2	10.00	0.12	4.65	
L0004529	0	0.72900E-06	564259.2	4183072.3	0.2	10.00	0.12	4.65	
L0004530	0	0.72900E-06	564259.4	4183072.0	0.2	10.00	0.12	4.65	
L0004531	0	0.72900E-06	564259.7	4183072.0	0.3	10.00	0.12	4.65	
L0004532	0	0.72900E-06	564259.9	4183071.8	0.3	10.00	0.12	4.65	
L0004533	0	0.72900E-06	564260.1	4183071.8	0.4	10.00	0.12	4.65	
L0004534	0	0.72900E-06	564260.3	4183071.5	0.4	10.00	0.12	4.65	
L0004535	0	0.72900E-06	564260.6	4183071.5	0.5	10.00	0.12	4.65	
L0004536	0	0.72900E-06	564260.8	4183071.5	0.5	10.00	0.12	4.65	
L0004537	0	0.72900E-06	564261.0	4183071.2	0.6	10.00	0.12	4.65	
L0004538	0	0.72900E-06	564261.2	4183071.2	0.6	10.00	0.12	4.65	
L0004539	0	0.72900E-06	564261.4	4183071.0	0.7	10.00	0.12	4.65	
L0004540	0	0.72900E-06	564261.7	4183071.0	0.7	10.00	0.12	4.65	

L0004541	0	0.72900E-06	564261.9	4183070.8	0.7	10.00	0.12	4.65
L0004542	0	0.72900E-06	564262.1	4183070.8	0.8	10.00	0.12	4.65
L0004543	0	0.72900E-06	564262.3	4183070.5	0.8	10.00	0.12	4.65
L0004544	0	0.72900E-06	564262.6	4183070.5	0.9	10.00	0.12	4.65
L0004545	0	0.72900E-06	564262.8	4183070.2	0.9	10.00	0.12	4.65
L0004546	0	0.72900E-06	564263.0	4183070.2	0.9	10.00	0.12	4.65
L0004547	0	0.72900E-06	564263.3	4183070.2	1.0	10.00	0.12	4.65
L0004548	0	0.72900E-06	564263.4	4183070.0	1.0	10.00	0.12	4.65
L0004549	0	0.72900E-06	564263.7	4183070.0	1.0	10.00	0.12	4.65
L0004550	0	0.72900E-06	564263.9	4183069.8	1.1	10.00	0.12	4.65
L0004551	0	0.72900E-06	564264.1	4183069.8	1.4	10.00	0.12	4.65
L0004552	0	0.72900E-06	564264.4	4183069.5	1.5	10.00	0.12	4.65
L0004553	0	0.72900E-06	564264.6	4183069.5	1.5	10.00	0.12	4.65
L0004554	0	0.72900E-06	564264.8	4183069.2	1.5	10.00	0.12	4.65
L0004555	0	0.72900E-06	564265.0	4183069.2	1.5	10.00	0.12	4.65
L0004556	0	0.72900E-06	564265.2	4183069.0	1.5	10.00	0.12	4.65
L0004557	0	0.72900E-06	564265.4	4183069.0	1.6	10.00	0.12	4.65
L0004558	0	0.72900E-06	564265.7	4183069.0	1.6	10.00	0.12	4.65
L0004559	0	0.72900E-06	564265.9	4183068.8	1.6	10.00	0.12	4.65
L0004560	0	0.72900E-06	564266.1	4183068.8	1.6	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004561	0	0.72900E-06	564266.4	4183068.5	1.6	10.00	0.12	4.65	
L0004562	0	0.72900E-06	564266.6	4183068.5	1.6	10.00	0.12	4.65	
L0004563	0	0.72900E-06	564266.8	4183068.2	1.7	10.00	0.12	4.65	
L0004564	0	0.72900E-06	564267.0	4183068.2	1.7	10.00	0.12	4.65	
L0004565	0	0.72900E-06	564267.3	4183068.0	1.7	10.00	0.12	4.65	
L0004566	0	0.72900E-06	564267.5	4183068.0	1.7	10.00	0.12	4.65	
L0004567	0	0.72900E-06	564267.7	4183067.8	1.7	10.00	0.12	4.65	
L0004568	0	0.72900E-06	564267.9	4183067.8	1.7	10.00	0.12	4.65	
L0004569	0	0.72900E-06	564268.1	4183067.8	1.7	10.00	0.12	4.65	
L0004570	0	0.72900E-06	564268.4	4183067.5	1.7	10.00	0.12	4.65	
L0004571	0	0.72900E-06	564268.6	4183067.5	1.8	10.00	0.12	4.65	
L0004572	0	0.72900E-06	564268.8	4183067.2	1.8	10.00	0.12	4.65	
L0004573	0	0.72900E-06	564269.1	4183067.2	1.8	10.00	0.12	4.65	
L0004574	0	0.72900E-06	564269.2	4183067.0	1.8	10.00	0.12	4.65	
L0004575	0	0.72900E-06	564269.5	4183067.0	1.8	10.00	0.12	4.65	
L0004576	0	0.72900E-06	564269.7	4183066.8	1.8	10.00	0.12	4.65	
L0004577	0	0.72900E-06	564269.9	4183066.8	1.8	10.00	0.12	4.65	
L0004578	0	0.72900E-06	564270.2	4183066.8	1.8	10.00	0.12	4.65	
L0004579	0	0.72900E-06	564270.4	4183066.8	1.8	10.00	0.12	4.65	
L0004580	0	0.72900E-06	564270.7	4183066.5	1.8	10.00	0.12	4.65	

L0004581	0	0.72900E-06	564270.9	4183066.5	1.8	10.00	0.12	4.65
L0004582	0	0.72900E-06	564271.1	4183066.5	1.8	10.00	0.12	4.65
L0004583	0	0.72900E-06	564271.4	4183066.2	1.8	10.00	0.12	4.65
L0004584	0	0.72900E-06	564271.6	4183066.2	1.8	10.00	0.12	4.65
L0004585	0	0.72900E-06	564271.9	4183066.2	1.8	10.00	0.12	4.65
L0004586	0	0.72900E-06	564272.1	4183066.2	1.8	10.00	0.12	4.65
L0004587	0	0.72900E-06	564272.3	4183066.0	1.8	10.00	0.12	4.65
L0004588	0	0.72900E-06	564272.6	4183066.0	1.9	10.00	0.12	4.65
L0004589	0	0.72900E-06	564272.8	4183066.0	1.9	10.00	0.12	4.65
L0004590	0	0.72900E-06	564273.1	4183065.8	1.9	10.00	0.12	4.65
L0004591	0	0.72900E-06	564273.3	4183065.8	1.9	10.00	0.12	4.65
L0004592	0	0.72900E-06	564273.5	4183065.8	1.9	10.00	0.12	4.65
L0004593	0	0.72900E-06	564273.8	4183065.8	1.9	10.00	0.12	4.65
L0004594	0	0.72900E-06	564274.0	4183065.5	1.9	10.00	0.12	4.65
L0004595	0	0.72900E-06	564274.2	4183065.5	1.9	10.00	0.12	4.65
L0004596	0	0.72900E-06	564274.5	4183065.5	1.9	10.00	0.12	4.65
L0004597	0	0.72900E-06	564274.8	4183065.2	1.9	10.00	0.12	4.65
L0004598	0	0.72900E-06	564274.9	4183065.2	1.9	10.00	0.12	4.65
L0004599	0	0.72900E-06	564275.2	4183065.2	1.9	10.00	0.12	4.65
L0004600	0	0.72900E-06	564275.4	4183065.2	1.9	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0004601	0	0.72900E-06	564275.7	4183065.0	1.9	10.00	0.12	4.65	
L0004602	0	0.72900E-06	564275.9	4183065.0	1.9	10.00	0.12	4.65	
L0004603	0	0.72900E-06	564276.2	4183065.0	1.9	10.00	0.12	4.65	
L0004604	0	0.72900E-06	564276.4	4183064.8	1.9	10.00	0.12	4.65	
L0004605	0	0.72900E-06	564276.6	4183064.8	1.9	10.00	0.12	4.65	
L0004606	0	0.72900E-06	564276.9	4183064.8	1.9	10.00	0.12	4.65	
L0004607	0	0.72900E-06	564277.1	4183064.8	1.9	10.00	0.12	4.65	
L0004608	0	0.72900E-06	564277.4	4183064.5	1.9	10.00	0.12	4.65	
L0004609	0	0.72900E-06	564277.6	4183064.5	1.9	10.00	0.12	4.65	
L0004610	0	0.72900E-06	564277.8	4183064.5	1.9	10.00	0.12	4.65	
L0004611	0	0.72900E-06	564278.1	4183064.2	1.9	10.00	0.12	4.65	
L0004612	0	0.72900E-06	564278.3	4183064.2	1.9	10.00	0.12	4.65	
L0004613	0	0.72900E-06	564278.6	4183064.2	2.0	10.00	0.12	4.65	
L0004614	0	0.72900E-06	564278.8	4183064.0	2.0	10.00	0.12	4.65	
L0004615	0	0.72900E-06	564279.1	4183064.0	2.0	10.00	0.12	4.65	
L0004616	0	0.72900E-06	564279.3	4183064.0	2.0	10.00	0.12	4.65	
L0004617	0	0.72900E-06	564279.5	4183064.0	2.0	10.00	0.12	4.65	
L0004618	0	0.72900E-06	564279.8	4183063.8	2.0	10.00	0.12	4.65	
L0004619	0	0.72900E-06	564280.0	4183063.8	2.0	10.00	0.12	4.65	
L0004620	0	0.72900E-06	564280.2	4183063.8	2.0	10.00	0.12	4.65	

L0004621	0	0.72900E-06	564280.5	4183063.5	2.0	10.00	0.12	4.65
L0004622	0	0.72900E-06	564280.7	4183063.5	2.0	10.00	0.12	4.65
L0004623	0	0.72900E-06	564280.9	4183063.5	2.0	10.00	0.12	4.65
L0004624	0	0.72900E-06	564281.2	4183063.5	2.0	10.00	0.12	4.65
L0004625	0	0.72900E-06	564281.4	4183063.2	2.0	10.00	0.12	4.65
L0004626	0	0.72900E-06	564281.7	4183063.2	2.0	10.00	0.12	4.65
L0004627	0	0.72900E-06	564281.9	4183063.2	2.0	10.00	0.12	4.65
L0004628	0	0.72900E-06	564282.1	4183063.0	2.0	10.00	0.12	4.65
L0004629	0	0.72900E-06	564282.4	4183063.0	2.1	10.00	0.12	4.65
L0004630	0	0.72900E-06	564282.6	4183063.0	2.1	10.00	0.12	4.65
L0004631	0	0.72900E-06	564282.9	4183063.0	2.1	10.00	0.12	4.65
L0004632	0	0.72900E-06	564283.1	4183062.8	2.1	10.00	0.12	4.65
L0004633	0	0.72900E-06	564283.4	4183062.8	2.1	10.00	0.12	4.65
L0004634	0	0.72900E-06	564283.6	4183062.8	2.1	10.00	0.12	4.65
L0004635	0	0.72900E-06	564283.8	4183062.5	2.1	10.00	0.12	4.65
L0004636	0	0.72900E-06	564284.1	4183062.5	2.1	10.00	0.12	4.65
L0004637	0	0.72900E-06	564284.3	4183062.5	2.1	10.00	0.12	4.65
L0004638	0	0.72900E-06	564284.6	4183062.5	2.1	10.00	0.12	4.65
L0004639	0	0.72900E-06	564284.8	4183062.2	2.1	10.00	0.12	4.65
L0004640	0	0.72900E-06	564285.0	4183062.2	2.2	10.00	0.12	4.65

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RURAL ELEV

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004641	0	0.72900E-06	564285.2	4183062.2	2.2	10.00	0.12	4.65	
L0004642	0	0.72900E-06	564285.5	4183062.0	2.2	10.00	0.12	4.65	
L0004643	0	0.72900E-06	564285.8	4183062.0	2.2	10.00	0.12	4.65	
L0004644	0	0.72900E-06	564286.0	4183062.0	2.2	10.00	0.12	4.65	
L0004645	0	0.72900E-06	564286.3	4183062.0	2.2	10.00	0.12	4.65	
L0004646	0	0.72900E-06	564286.4	4183061.8	2.2	10.00	0.12	4.65	
L0004647	0	0.72900E-06	564286.7	4183061.8	2.2	10.00	0.12	4.65	
L0004648	0	0.72900E-06	564286.9	4183061.8	2.2	10.00	0.12	4.65	
L0004649	0	0.72900E-06	564287.2	4183061.5	2.2	10.00	0.12	4.65	
L0004650	0	0.72900E-06	564287.4	4183061.5	2.2	10.00	0.12	4.65	
L0004651	0	0.72900E-06	564287.7	4183061.5	2.2	10.00	0.12	4.65	
L0004652	0	0.72900E-06	564287.9	4183061.5	2.2	10.00	0.12	4.65	
L0004653	0	0.72900E-06	564288.1	4183061.2	3.3	10.00	0.12	4.65	
L0004654	0	0.72900E-06	564288.4	4183061.2	3.3	10.00	0.12	4.65	
L0004655	0	0.72900E-06	564288.6	4183061.2	3.3	10.00	0.12	4.65	
L0004656	0	0.72900E-06	564288.9	4183061.0	3.3	10.00	0.12	4.65	
L0004657	0	0.72900E-06	564289.1	4183061.0	3.4	10.00	0.12	4.65	
L0004658	0	0.72900E-06	564289.3	4183061.0	3.4	10.00	0.12	4.65	
L0004659	0	0.72900E-06	564289.6	4183061.0	3.4	10.00	0.12	4.65	
L0004660	0	0.72900E-06	564289.8	4183060.8	3.4	10.00	0.12	4.65	

L0004661	0	0.72900E-06	564290.1	4183060.8	3.4	10.00	0.12	4.65
L0004662	0	0.72900E-06	564290.3	4183060.8	3.4	10.00	0.12	4.65
L0004663	0	0.72900E-06	564290.6	4183060.5	3.4	10.00	0.12	4.65
L0004664	0	0.72900E-06	564290.8	4183060.5	3.5	10.00	0.12	4.65
L0004665	0	0.72900E-06	564291.0	4183060.5	3.5	10.00	0.12	4.65
L0004666	0	0.72900E-06	564291.2	4183060.5	3.5	10.00	0.12	4.65
L0004667	0	0.72900E-06	564291.5	4183060.2	3.5	10.00	0.12	4.65
L0004668	0	0.72900E-06	564291.8	4183060.2	3.5	10.00	0.12	4.65
L0004669	0	0.72900E-06	564292.0	4183060.2	3.5	10.00	0.12	4.65
L0004670	0	0.72900E-06	564292.2	4183060.0	3.5	10.00	0.12	4.65
L0004671	0	0.72900E-06	564292.4	4183060.0	3.5	10.00	0.12	4.65
L0004672	0	0.72900E-06	564292.7	4183060.0	3.5	10.00	0.12	4.65
L0004673	0	0.72900E-06	564292.9	4183060.0	3.5	10.00	0.12	4.65
L0004674	0	0.72900E-06	564293.2	4183059.8	3.6	10.00	0.12	4.65
L0004675	0	0.72900E-06	564293.4	4183059.8	3.6	10.00	0.12	4.65
L0004676	0	0.72900E-06	564293.6	4183059.8	3.6	10.00	0.12	4.65
L0004677	0	0.72900E-06	564293.9	4183059.5	3.6	10.00	0.12	4.65
L0004678	0	0.72900E-06	564294.1	4183059.5	3.6	10.00	0.12	4.65
L0004679	0	0.72900E-06	564294.4	4183059.5	3.6	10.00	0.12	4.65
L0004680	0	0.72900E-06	564294.6	4183059.5	3.6	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004681	0	0.72900E-06	564294.8	4183059.3	3.7	10.00	0.12	4.65	
L0004682	0	0.72900E-06	564295.1	4183059.3	3.7	10.00	0.12	4.65	
L0004683	0	0.72900E-06	564295.3	4183059.3	3.7	10.00	0.12	4.65	
L0004684	0	0.72900E-06	564295.6	4183059.0	3.7	10.00	0.12	4.65	
L0004685	0	0.72900E-06	564295.8	4183059.0	3.7	10.00	0.12	4.65	
L0004686	0	0.72900E-06	564296.1	4183059.0	3.7	10.00	0.12	4.65	
L0004687	0	0.72900E-06	564296.2	4183059.0	3.7	10.00	0.12	4.65	
L0004688	0	0.72900E-06	564296.5	4183058.8	3.7	10.00	0.12	4.65	
L0004689	0	0.72900E-06	564296.8	4183058.8	3.7	10.00	0.12	4.65	
L0004690	0	0.72900E-06	564297.0	4183058.8	3.7	10.00	0.12	4.65	
L0004691	0	0.72900E-06	564297.2	4183058.5	3.8	10.00	0.12	4.65	
L0004692	0	0.72900E-06	564297.5	4183058.5	3.8	10.00	0.12	4.65	
L0004693	0	0.72900E-06	564297.7	4183058.5	3.8	10.00	0.12	4.65	
L0004694	0	0.72900E-06	564297.9	4183058.5	3.8	10.00	0.12	4.65	
L0004695	0	0.72900E-06	564298.2	4183058.2	3.8	10.00	0.12	4.65	
L0004696	0	0.72900E-06	564298.4	4183058.2	3.8	10.00	0.12	4.65	
L0004697	0	0.72900E-06	564298.7	4183058.2	3.8	10.00	0.12	4.65	
L0004698	0	0.72900E-06	564298.9	4183058.0	3.8	10.00	0.12	4.65	
L0004699	0	0.72900E-06	564299.1	4183058.0	3.8	10.00	0.12	4.65	
L0004700	0	0.72900E-06	564299.4	4183058.0	3.8	10.00	0.12	4.65	

L0004701	0	0.72900E-06	564299.6	4183057.8	3.9	10.00	0.12	4.65
L0004702	0	0.72900E-06	564299.9	4183057.8	3.9	10.00	0.12	4.65
L0004703	0	0.72900E-06	564300.1	4183057.8	3.9	10.00	0.12	4.65
L0004704	0	0.72900E-06	564300.4	4183057.8	3.8	10.00	0.12	4.65
L0004705	0	0.72900E-06	564300.6	4183057.5	3.9	10.00	0.12	4.65
L0004706	0	0.72900E-06	564300.8	4183057.5	3.9	10.00	0.12	4.65
L0004707	0	0.72900E-06	564301.1	4183057.5	3.9	10.00	0.12	4.65
L0004708	0	0.72900E-06	564301.3	4183057.2	3.9	10.00	0.12	4.65
L0004709	0	0.72900E-06	564301.6	4183057.2	3.9	10.00	0.12	4.65
L0004710	0	0.72900E-06	564301.8	4183057.2	3.9	10.00	0.12	4.65
L0004711	0	0.72900E-06	564302.0	4183057.2	3.9	10.00	0.12	4.65
L0004712	0	0.72900E-06	564302.2	4183057.0	3.9	10.00	0.12	4.65
L0004713	0	0.72900E-06	564302.5	4183057.0	3.9	10.00	0.12	4.65
L0004714	0	0.72900E-06	564302.8	4183057.0	3.9	10.00	0.12	4.65
L0004715	0	0.72900E-06	564303.0	4183056.8	3.9	10.00	0.12	4.65
L0004716	0	0.72900E-06	564303.2	4183056.8	3.9	10.00	0.12	4.65
L0004717	0	0.72900E-06	564303.4	4183056.8	3.9	10.00	0.12	4.65
L0004718	0	0.72900E-06	564303.7	4183056.8	3.9	10.00	0.12	4.65
L0004719	0	0.72900E-06	564303.9	4183056.5	3.9	10.00	0.12	4.65
L0004720	0	0.72900E-06	564304.2	4183056.5	3.9	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004721	0	0.72900E-06	564304.4	4183056.5	3.9	10.00	0.12	4.65	
L0004722	0	0.72900E-06	564304.7	4183056.2	3.9	10.00	0.12	4.65	
L0004723	0	0.72900E-06	564304.9	4183056.2	3.9	10.00	0.12	4.65	
L0004724	0	0.72900E-06	564305.1	4183056.2	3.9	10.00	0.12	4.65	
L0004725	0	0.72900E-06	564305.4	4183056.2	3.9	10.00	0.12	4.65	
L0004726	0	0.72900E-06	564305.6	4183056.0	3.9	10.00	0.12	4.65	
L0004727	0	0.72900E-06	564305.9	4183056.0	3.9	10.00	0.12	4.65	
L0004728	0	0.72900E-06	564306.1	4183056.0	3.9	10.00	0.12	4.65	
L0004729	0	0.72900E-06	564306.3	4183055.8	4.4	10.00	0.12	4.65	
L0004730	0	0.72900E-06	564306.6	4183055.8	4.4	10.00	0.12	4.65	
L0004731	0	0.72900E-06	564306.8	4183055.8	4.4	10.00	0.12	4.65	
L0004732	0	0.72900E-06	564307.1	4183055.8	4.4	10.00	0.12	4.65	
L0004733	0	0.72900E-06	564307.3	4183055.5	4.4	10.00	0.12	4.65	
L0004734	0	0.72900E-06	564307.6	4183055.5	4.4	10.00	0.12	4.65	
L0004735	0	0.72900E-06	564307.8	4183055.5	4.4	10.00	0.12	4.65	
L0004736	0	0.72900E-06	564308.0	4183055.2	4.4	10.00	0.12	4.65	
L0004737	0	0.72900E-06	564308.2	4183055.2	4.4	10.00	0.12	4.65	
L0004738	0	0.72900E-06	564308.5	4183055.2	4.3	10.00	0.12	4.65	
L0004739	0	0.72900E-06	564308.8	4183055.2	4.3	10.00	0.12	4.65	
L0004740	0	0.72900E-06	564309.0	4183055.0	4.3	10.00	0.12	4.65	

L0004741	0	0.72900E-06	564309.2	4183055.0	4.3	10.00	0.12	4.65
L0004742	0	0.72900E-06	564309.4	4183055.0	4.3	10.00	0.12	4.65
L0004743	0	0.72900E-06	564309.7	4183054.8	4.3	10.00	0.12	4.65
L0004744	0	0.72900E-06	564309.9	4183054.8	4.3	10.00	0.12	4.65
L0004745	0	0.72900E-06	564310.2	4183054.8	4.3	10.00	0.12	4.65
L0004746	0	0.72900E-06	564310.4	4183054.8	4.3	10.00	0.12	4.65
L0004747	0	0.72900E-06	564310.6	4183054.5	4.3	10.00	0.12	4.65
L0004748	0	0.72900E-06	564310.9	4183054.5	4.3	10.00	0.12	4.65
L0004749	0	0.72900E-06	564311.1	4183054.5	4.3	10.00	0.12	4.65
L0004750	0	0.72900E-06	564311.4	4183054.2	4.3	10.00	0.12	4.65
L0004751	0	0.72900E-06	564311.6	4183054.2	4.3	10.00	0.12	4.65
L0004752	0	0.72900E-06	564311.9	4183054.2	4.3	10.00	0.12	4.65
L0004753	0	0.72900E-06	564312.1	4183054.2	4.2	10.00	0.12	4.65
L0004754	0	0.72900E-06	564312.3	4183054.0	4.2	10.00	0.12	4.65
L0004755	0	0.72900E-06	564312.6	4183054.0	4.2	10.00	0.12	4.65
L0004756	0	0.72900E-06	564312.8	4183054.0	4.2	10.00	0.12	4.65
L0004757	0	0.72900E-06	564313.1	4183053.8	4.2	10.00	0.12	4.65
L0004758	0	0.72900E-06	564313.2	4183053.8	4.2	10.00	0.12	4.65
L0004759	0	0.72900E-06	564313.5	4183053.8	4.2	10.00	0.12	4.65
L0004760	0	0.72900E-06	564313.8	4183053.8	4.1	10.00	0.12	4.65

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**MODELOPTs:

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004761	0	0.72900E-06	564314.0	4183053.5	4.1	10.00	0.12	4.65	
L0004762	0	0.72900E-06	564314.3	4183053.5	4.1	10.00	0.12	4.65	
L0004763	0	0.72900E-06	564314.5	4183053.5	4.1	10.00	0.12	4.65	
L0004764	0	0.72900E-06	564314.7	4183053.3	4.1	10.00	0.12	4.65	
L0004765	0	0.72900E-06	564314.9	4183053.3	4.1	10.00	0.12	4.65	
L0004766	0	0.72900E-06	564315.2	4183053.3	4.1	10.00	0.12	4.65	
L0004767	0	0.72900E-06	564315.4	4183053.3	4.1	10.00	0.12	4.65	
L0004768	0	0.72900E-06	564315.7	4183053.0	4.1	10.00	0.12	4.65	
L0004769	0	0.72900E-06	564315.9	4183053.0	4.1	10.00	0.12	4.65	
L0004770	0	0.72900E-06	564316.1	4183053.0	4.1	10.00	0.12	4.65	
L0004771	0	0.72900E-06	564316.4	4183052.8	4.1	10.00	0.12	4.65	
L0004772	0	0.72900E-06	564316.6	4183052.8	4.1	10.00	0.12	4.65	
L0004773	0	0.72900E-06	564316.9	4183052.8	4.0	10.00	0.12	4.65	
L0004774	0	0.72900E-06	564317.1	4183052.8	4.0	10.00	0.12	4.65	
L0004775	0	0.72900E-06	564317.4	4183052.5	4.0	10.00	0.12	4.65	
L0004776	0	0.72900E-06	564317.6	4183052.5	4.0	10.00	0.12	4.65	
L0004777	0	0.72900E-06	564317.8	4183052.5	4.0	10.00	0.12	4.65	
L0004778	0	0.72900E-06	564318.1	4183052.2	4.0	10.00	0.12	4.65	
L0004779	0	0.72900E-06	564318.3	4183052.2	4.0	10.00	0.12	4.65	
L0004780	0	0.72900E-06	564318.6	4183052.2	4.0	10.00	0.12	4.65	

L0004781	0	0.72900E-06	564318.8	4183052.2	4.0	10.00	0.12	4.65
L0004782	0	0.72900E-06	564319.0	4183052.0	4.0	10.00	0.12	4.65
L0004783	0	0.72900E-06	564319.2	4183052.0	4.0	10.00	0.12	4.65
L0004784	0	0.72900E-06	564319.5	4183052.0	4.0	10.00	0.12	4.65
L0004785	0	0.72900E-06	564319.8	4183051.8	4.0	10.00	0.12	4.65
L0004786	0	0.72900E-06	564320.0	4183051.8	4.0	10.00	0.12	4.65
L0004787	0	0.72900E-06	564320.3	4183051.8	4.0	10.00	0.12	4.65
L0004788	0	0.72900E-06	564320.4	4183051.5	4.0	10.00	0.12	4.65
L0004789	0	0.72900E-06	564320.7	4183051.5	4.0	10.00	0.12	4.65
L0004790	0	0.72900E-06	564320.9	4183051.5	4.0	10.00	0.12	4.65
L0004791	0	0.72900E-06	564321.2	4183051.5	4.0	10.00	0.12	4.65
L0004792	0	0.72900E-06	564321.4	4183051.2	4.0	10.00	0.12	4.65
L0004793	0	0.72900E-06	564321.7	4183051.2	4.0	10.00	0.12	4.65
L0004794	0	0.72900E-06	564321.9	4183051.2	4.0	10.00	0.12	4.65
L0004795	0	0.72900E-06	564322.1	4183051.0	4.0	10.00	0.12	4.65
L0004796	0	0.72900E-06	564322.4	4183051.0	4.0	10.00	0.12	4.65
L0004797	0	0.72900E-06	564322.6	4183051.0	4.0	10.00	0.12	4.65
L0004798	0	0.72900E-06	564322.9	4183051.0	4.0	10.00	0.12	4.65
L0004799	0	0.72900E-06	564323.1	4183050.8	3.9	10.00	0.12	4.65
L0004800	0	0.72900E-06	564323.3	4183050.8	3.9	10.00	0.12	4.65

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CONC

RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004801	0	0.72900E-06	564323.6	4183050.8	3.9	10.00	0.12	4.65	
L0004802	0	0.72900E-06	564323.8	4183050.5	3.9	10.00	0.12	4.65	
L0004803	0	0.72900E-06	564324.1	4183050.5	3.9	10.00	0.12	4.65	
L0004804	0	0.72900E-06	564324.3	4183050.5	3.9	10.00	0.12	4.65	
L0004805	0	0.72900E-06	564324.6	4183050.5	3.9	10.00	0.12	4.65	
L0004806	0	0.72900E-06	564324.8	4183050.2	3.9	10.00	0.12	4.65	
L0004807	0	0.72900E-06	564325.0	4183050.2	3.9	10.00	0.12	4.65	
L0004808	0	0.72900E-06	564325.2	4183050.2	3.9	10.00	0.12	4.65	
L0004809	0	0.72900E-06	564325.5	4183050.0	3.9	10.00	0.12	4.65	
L0004810	0	0.72900E-06	564325.8	4183050.0	3.9	10.00	0.12	4.65	
L0004811	0	0.72900E-06	564326.0	4183050.0	3.9	10.00	0.12	4.65	
L0004812	0	0.72900E-06	564326.2	4183050.0	3.9	10.00	0.12	4.65	
L0004813	0	0.72900E-06	564326.4	4183049.8	3.9	10.00	0.12	4.65	
L0004814	0	0.72900E-06	564326.7	4183049.8	3.9	10.00	0.12	4.65	
L0004815	0	0.72900E-06	564326.9	4183049.8	3.8	10.00	0.12	4.65	
L0004816	0	0.72900E-06	564327.2	4183049.5	3.8	10.00	0.12	4.65	
L0004817	0	0.72900E-06	564327.4	4183049.5	3.8	10.00	0.12	4.65	
L0004818	0	0.72900E-06	564327.6	4183049.5	3.8	10.00	0.12	4.65	
L0004819	0	0.72900E-06	564327.9	4183049.5	3.8	10.00	0.12	4.65	
L0004820	0	0.72900E-06	564328.1	4183049.2	3.8	10.00	0.12	4.65	

L0004821	0	0.72900E-06	564328.4	4183049.2	3.8	10.00	0.12	4.65
L0004822	0	0.72900E-06	564328.6	4183049.2	3.8	10.00	0.12	4.65
L0004823	0	0.72900E-06	564328.9	4183049.0	3.7	10.00	0.12	4.65
L0004824	0	0.72900E-06	564329.1	4183049.0	3.7	10.00	0.12	4.65
L0004825	0	0.72900E-06	564329.3	4183049.0	3.7	10.00	0.12	4.65
L0004826	0	0.72900E-06	564329.6	4183049.0	3.7	10.00	0.12	4.65
L0004827	0	0.72900E-06	564329.8	4183048.8	3.7	10.00	0.12	4.65
L0004828	0	0.72900E-06	564330.1	4183048.8	3.7	10.00	0.12	4.65
L0004829	0	0.72900E-06	564330.3	4183048.8	3.6	10.00	0.12	4.65
L0004830	0	0.72900E-06	564330.5	4183048.5	3.6	10.00	0.12	4.65
L0004831	0	0.72900E-06	564330.8	4183048.5	3.6	10.00	0.12	4.65
L0004832	0	0.72900E-06	564331.0	4183048.5	3.6	10.00	0.12	4.65
L0004833	0	0.72900E-06	564331.2	4183048.5	3.5	10.00	0.12	4.65
L0004834	0	0.72900E-06	564331.5	4183048.2	3.5	10.00	0.12	4.65
L0004835	0	0.72900E-06	564331.8	4183048.2	3.5	10.00	0.12	4.65
L0004836	0	0.72900E-06	564331.9	4183048.2	3.5	10.00	0.12	4.65
L0004837	0	0.72900E-06	564332.2	4183048.0	3.4	10.00	0.12	4.65
L0004838	0	0.72900E-06	564332.4	4183048.0	3.4	10.00	0.12	4.65
L0004839	0	0.72900E-06	564332.7	4183048.0	3.4	10.00	0.12	4.65
L0004840	0	0.72900E-06	564332.9	4183048.0	3.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0004841	0	0.72900E-06	564333.1	4183047.8	3.3	10.00	0.12	4.65	
L0004842	0	0.72900E-06	564333.4	4183047.8	3.3	10.00	0.12	4.65	
L0004843	0	0.72900E-06	564333.6	4183047.8	3.2	10.00	0.12	4.65	
L0004844	0	0.72900E-06	564333.9	4183047.5	3.2	10.00	0.12	4.65	
L0004845	0	0.72900E-06	564334.1	4183047.5	3.2	10.00	0.12	4.65	
L0004846	0	0.72900E-06	564334.4	4183047.5	3.1	10.00	0.12	4.65	
L0004847	0	0.72900E-06	564334.6	4183047.5	3.1	10.00	0.12	4.65	
L0004848	0	0.72900E-06	564334.8	4183047.2	3.1	10.00	0.12	4.65	
L0004849	0	0.72900E-06	564335.1	4183047.2	3.0	10.00	0.12	4.65	
L0004850	0	0.72900E-06	564335.3	4183047.2	3.0	10.00	0.12	4.65	
L0004851	0	0.72900E-06	564335.6	4183047.0	2.9	10.00	0.12	4.65	
L0004852	0	0.72900E-06	564335.8	4183047.0	2.9	10.00	0.12	4.65	
L0004853	0	0.72900E-06	564336.0	4183047.0	2.6	10.00	0.12	4.65	
L0004854	0	0.72900E-06	564336.3	4183047.0	2.6	10.00	0.12	4.65	
L0004855	0	0.72900E-06	564336.5	4183046.8	2.6	10.00	0.12	4.65	
L0004856	0	0.72900E-06	564336.8	4183046.8	2.5	10.00	0.12	4.65	
L0004857	0	0.72900E-06	564337.0	4183046.8	2.5	10.00	0.12	4.65	
L0004858	0	0.72900E-06	564337.3	4183046.5	2.5	10.00	0.12	4.65	
L0004859	0	0.72900E-06	564337.4	4183046.5	2.5	10.00	0.12	4.65	
L0004860	0	0.72900E-06	564337.7	4183046.5	2.4	10.00	0.12	4.65	

L0004861	0	0.72900E-06	564337.9	4183046.5	2.4	10.00	0.12	4.65
L0004862	0	0.72900E-06	564338.2	4183046.2	2.4	10.00	0.12	4.65
L0004863	0	0.72900E-06	564338.4	4183046.2	2.3	10.00	0.12	4.65
L0004864	0	0.72900E-06	564338.7	4183046.2	2.3	10.00	0.12	4.65
L0004865	0	0.72900E-06	564338.9	4183046.0	2.3	10.00	0.12	4.65
L0004866	0	0.72900E-06	564339.1	4183046.0	2.3	10.00	0.12	4.65
L0004867	0	0.72900E-06	564339.4	4183046.0	2.3	10.00	0.12	4.65
L0004868	0	0.72900E-06	564339.6	4183046.0	2.2	10.00	0.12	4.65
L0004869	0	0.72900E-06	564339.9	4183045.8	2.2	10.00	0.12	4.65
L0004870	0	0.72900E-06	564340.1	4183045.8	2.2	10.00	0.12	4.65
L0004871	0	0.72900E-06	564340.3	4183045.8	2.2	10.00	0.12	4.65
L0004872	0	0.72900E-06	564340.6	4183045.5	2.2	10.00	0.12	4.65
L0004873	0	0.72900E-06	564340.8	4183045.5	2.2	10.00	0.12	4.65
L0004874	0	0.72900E-06	564341.1	4183045.5	2.1	10.00	0.12	4.65
L0004875	0	0.72900E-06	564341.3	4183045.5	2.1	10.00	0.12	4.65
L0004876	0	0.72900E-06	564341.6	4183045.2	2.1	10.00	0.12	4.65
L0004877	0	0.72900E-06	564341.8	4183045.2	2.1	10.00	0.12	4.65
L0004878	0	0.72900E-06	564342.0	4183045.2	2.1	10.00	0.12	4.65
L0004879	0	0.72900E-06	564342.2	4183045.0	2.1	10.00	0.12	4.65
L0004880	0	0.72900E-06	564342.5	4183045.0	2.1	10.00	0.12	4.65

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CONC

RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004881	0	0.72900E-06	564342.8	4183045.0	2.0	10.00	0.12	4.65	
L0004882	0	0.72900E-06	564343.0	4183044.8	2.0	10.00	0.12	4.65	
L0004883	0	0.72900E-06	564343.2	4183044.8	2.0	10.00	0.12	4.65	
L0004884	0	0.72900E-06	564343.4	4183044.8	2.0	10.00	0.12	4.65	
L0004885	0	0.72900E-06	564343.7	4183044.8	2.0	10.00	0.12	4.65	
L0004886	0	0.72900E-06	564343.9	4183044.5	2.0	10.00	0.12	4.65	
L0004887	0	0.72900E-06	564344.2	4183044.5	2.0	10.00	0.12	4.65	
L0004888	0	0.72900E-06	564344.4	4183044.5	2.0	10.00	0.12	4.65	
L0004889	0	0.72900E-06	564344.6	4183044.2	2.0	10.00	0.12	4.65	
L0004890	0	0.72900E-06	564344.9	4183044.2	2.0	10.00	0.12	4.65	
L0004891	0	0.72900E-06	564345.1	4183044.2	2.0	10.00	0.12	4.65	
L0004892	0	0.72900E-06	564345.4	4183044.2	2.0	10.00	0.12	4.65	
L0004893	0	0.72900E-06	564345.6	4183044.0	2.0	10.00	0.12	4.65	
L0004894	0	0.72900E-06	564345.9	4183044.0	2.0	10.00	0.12	4.65	
L0004895	0	0.72900E-06	564346.1	4183044.0	2.0	10.00	0.12	4.65	
L0004896	0	0.72900E-06	564346.3	4183043.8	2.0	10.00	0.12	4.65	
L0004897	0	0.72900E-06	564346.6	4183043.8	2.0	10.00	0.12	4.65	
L0004898	0	0.72900E-06	564346.8	4183043.8	2.0	10.00	0.12	4.65	
L0004899	0	0.72900E-06	564347.1	4183043.8	2.0	10.00	0.12	4.65	
L0004900	0	0.72900E-06	564347.3	4183043.5	2.0	10.00	0.12	4.65	

L0004901	0	0.72900E-06	564347.5	4183043.5	2.0	10.00	0.12	4.65
L0004902	0	0.72900E-06	564347.8	4183043.5	2.0	10.00	0.12	4.65
L0004903	0	0.72900E-06	564348.0	4183043.2	2.0	10.00	0.12	4.65
L0004904	0	0.72900E-06	564348.2	4183043.2	2.0	10.00	0.12	4.65
L0004905	0	0.72900E-06	564348.5	4183043.2	2.0	10.00	0.12	4.65
L0004906	0	0.72900E-06	564348.8	4183043.2	2.0	10.00	0.12	4.65
L0004907	0	0.72900E-06	564348.9	4183043.0	2.0	10.00	0.12	4.65
L0004908	0	0.72900E-06	564349.2	4183043.0	2.0	10.00	0.12	4.65
L0004909	0	0.72900E-06	564349.4	4183043.0	2.0	10.00	0.12	4.65
L0004910	0	0.72900E-06	564349.7	4183042.8	2.0	10.00	0.12	4.65
L0004911	0	0.72900E-06	564349.9	4183042.8	2.0	10.00	0.12	4.65
L0004912	0	0.72900E-06	564350.2	4183042.8	2.0	10.00	0.12	4.65
L0004913	0	0.72900E-06	564350.4	4183042.8	2.0	10.00	0.12	4.65
L0004914	0	0.72900E-06	564350.6	4183042.5	2.0	10.00	0.12	4.65
L0004915	0	0.72900E-06	564350.9	4183042.5	2.0	10.00	0.12	4.65
L0004916	0	0.72900E-06	564351.1	4183042.5	2.0	10.00	0.12	4.65
L0004917	0	0.72900E-06	564351.4	4183042.2	2.0	10.00	0.12	4.65
L0004918	0	0.72900E-06	564351.6	4183042.2	2.0	10.00	0.12	4.65
L0004919	0	0.72900E-06	564351.8	4183042.2	2.0	10.00	0.12	4.65
L0004920	0	0.72900E-06	564352.1	4183042.2	2.0	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0004921	0	0.72900E-06	564352.3	4183042.0	2.0	10.00	0.12	4.65	
L0004922	0	0.72900E-06	564352.6	4183042.0	2.0	10.00	0.12	4.65	
L0004923	0	0.72900E-06	564352.8	4183042.0	2.0	10.00	0.12	4.65	
L0004924	0	0.72900E-06	564353.0	4183041.8	2.0	10.00	0.12	4.65	
L0004925	0	0.72900E-06	564353.2	4183041.8	2.0	10.00	0.12	4.65	
L0004926	0	0.72900E-06	564353.5	4183041.8	2.0	10.00	0.12	4.65	
L0004927	0	0.72900E-06	564353.8	4183041.8	2.0	10.00	0.12	4.65	
L0004928	0	0.72900E-06	564354.0	4183041.5	2.0	10.00	0.12	4.65	
L0004929	0	0.72900E-06	564354.2	4183041.5	2.0	10.00	0.12	4.65	
L0004930	0	0.72900E-06	564354.4	4183041.5	2.0	10.00	0.12	4.65	
L0004931	0	0.72900E-06	564354.7	4183041.2	2.0	10.00	0.12	4.65	
L0004932	0	0.72900E-06	564354.9	4183041.2	2.0	10.00	0.12	4.65	
L0004933	0	0.72900E-06	564355.2	4183041.2	2.0	10.00	0.12	4.65	
L0004934	0	0.72900E-06	564355.4	4183041.2	2.0	10.00	0.12	4.65	
L0004935	0	0.72900E-06	564355.7	4183041.0	2.0	10.00	0.12	4.65	
L0004936	0	0.72900E-06	564355.9	4183041.0	2.0	10.00	0.12	4.65	
L0004937	0	0.72900E-06	564356.1	4183041.0	2.0	10.00	0.12	4.65	
L0004938	0	0.72900E-06	564356.4	4183040.8	2.0	10.00	0.12	4.65	
L0004939	0	0.72900E-06	564356.6	4183040.8	1.9	10.00	0.12	4.65	
L0004940	0	0.72900E-06	564356.9	4183040.8	1.9	10.00	0.12	4.65	

L0004941	0	0.72900E-06	564357.1	4183040.8	1.9	10.00	0.12	4.65
L0004942	0	0.72900E-06	564357.3	4183040.5	1.9	10.00	0.12	4.65
L0004943	0	0.72900E-06	564357.6	4183040.5	1.9	10.00	0.12	4.65
L0004944	0	0.72900E-06	564357.8	4183040.5	1.9	10.00	0.12	4.65
L0004945	0	0.72900E-06	564358.1	4183040.3	1.9	10.00	0.12	4.65
L0004946	0	0.72900E-06	564358.3	4183040.3	1.8	10.00	0.12	4.65
L0004947	0	0.72900E-06	564358.6	4183040.3	1.8	10.00	0.12	4.65
L0004948	0	0.72900E-06	564358.8	4183040.3	1.8	10.00	0.12	4.65
L0004949	0	0.72900E-06	564359.0	4183040.0	1.8	10.00	0.12	4.65
L0004950	0	0.72900E-06	564359.2	4183040.0	1.8	10.00	0.12	4.65
L0004951	0	0.72900E-06	564359.5	4183040.0	1.8	10.00	0.12	4.65
L0004952	0	0.72900E-06	564359.8	4183039.8	1.7	10.00	0.12	4.65
L0004953	0	0.72900E-06	564360.0	4183039.8	1.4	10.00	0.12	4.65
L0004954	0	0.72900E-06	564360.2	4183039.8	1.4	10.00	0.12	4.65
L0004955	0	0.72900E-06	564360.4	4183039.8	1.4	10.00	0.12	4.65
L0004956	0	0.72900E-06	564360.7	4183039.5	1.4	10.00	0.12	4.65
L0004957	0	0.72900E-06	564360.9	4183039.5	1.4	10.00	0.12	4.65
L0004958	0	0.72900E-06	564361.2	4183039.5	1.4	10.00	0.12	4.65
L0004959	0	0.72900E-06	564361.4	4183039.2	1.3	10.00	0.12	4.65
L0004960	0	0.72900E-06	564361.6	4183039.2	1.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0004961	0	0.72900E-06	564361.9	4183039.2	1.3	10.00	0.12	4.65	
L0004962	0	0.72900E-06	564362.1	4183039.2	1.3	10.00	0.12	4.65	
L0004963	0	0.72900E-06	564362.4	4183039.0	1.3	10.00	0.12	4.65	
L0004964	0	0.72900E-06	564362.6	4183039.0	1.3	10.00	0.12	4.65	
L0004965	0	0.72900E-06	564362.9	4183039.0	1.3	10.00	0.12	4.65	
L0004966	0	0.72900E-06	564363.1	4183038.8	1.3	10.00	0.12	4.65	
L0004967	0	0.72900E-06	564363.3	4183038.8	1.3	10.00	0.12	4.65	
L0004968	0	0.72900E-06	564363.6	4183038.8	1.2	10.00	0.12	4.65	
L0004969	0	0.72900E-06	564363.8	4183038.5	1.2	10.00	0.12	4.65	
L0004970	0	0.72900E-06	564364.1	4183038.5	1.2	10.00	0.12	4.65	
L0004971	0	0.72900E-06	564364.3	4183038.5	1.2	10.00	0.12	4.65	
L0004972	0	0.72900E-06	564364.5	4183038.5	1.2	10.00	0.12	4.65	
L0004973	0	0.72900E-06	564364.8	4183038.2	1.2	10.00	0.12	4.65	
L0004974	0	0.72900E-06	564365.0	4183038.2	1.2	10.00	0.12	4.65	
L0004975	0	0.72900E-06	564365.3	4183038.2	1.2	10.00	0.12	4.65	
L0004976	0	0.72900E-06	564365.5	4183038.0	1.2	10.00	0.12	4.65	
L0004977	0	0.72900E-06	564365.8	4183038.0	1.2	10.00	0.12	4.65	
L0004978	0	0.72900E-06	564365.9	4183038.0	1.2	10.00	0.12	4.65	
L0004979	0	0.72900E-06	564366.2	4183038.0	1.2	10.00	0.12	4.65	
L0004980	0	0.72900E-06	564366.4	4183037.8	1.2	10.00	0.12	4.65	

L0004981	0	0.72900E-06	564366.7	4183037.8	1.2	10.00	0.12	4.65
L0004982	0	0.72900E-06	564366.9	4183037.8	1.2	10.00	0.12	4.65
L0004983	0	0.72900E-06	564367.2	4183037.5	1.2	10.00	0.12	4.65
L0004984	0	0.72900E-06	564367.4	4183037.5	1.2	10.00	0.12	4.65
L0004985	0	0.72900E-06	564367.6	4183037.5	1.2	10.00	0.12	4.65
L0004986	0	0.72900E-06	564367.9	4183037.5	1.2	10.00	0.12	4.65
L0004987	0	0.72900E-06	564368.1	4183037.2	1.2	10.00	0.12	4.65
L0004988	0	0.72900E-06	564368.4	4183037.2	1.2	10.00	0.12	4.65
L0004989	0	0.72900E-06	564368.6	4183037.2	1.2	10.00	0.12	4.65
L0004990	0	0.72900E-06	564368.8	4183037.0	1.2	10.00	0.12	4.65
L0004991	0	0.72900E-06	564369.1	4183037.0	1.2	10.00	0.12	4.65
L0004992	0	0.72900E-06	564369.3	4183037.0	1.2	10.00	0.12	4.65
L0004993	0	0.72900E-06	564369.6	4183037.0	1.2	10.00	0.12	4.65
L0004994	0	0.72900E-06	564369.8	4183036.8	1.2	10.00	0.12	4.65
L0004995	0	0.72900E-06	564370.1	4183036.8	1.2	10.00	0.12	4.65
L0004996	0	0.72900E-06	564370.2	4183036.8	1.2	10.00	0.12	4.65
L0004997	0	0.72900E-06	564370.5	4183036.5	1.2	10.00	0.12	4.65
L0004998	0	0.72900E-06	564370.8	4183036.5	1.2	10.00	0.12	4.65
L0004999	0	0.72900E-06	564371.0	4183036.5	1.2	10.00	0.12	4.65
L0005000	0	0.72900E-06	564371.3	4183036.5	1.2	10.00	0.12	4.65

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CONC RURAL ELEV DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0005001	0	0.72900E-06	564371.5	4183036.2	1.2	10.00	0.12	4.65	
L0005002	0	0.72900E-06	564371.7	4183036.2	1.2	10.00	0.12	4.65	
L0005003	0	0.72900E-06	564371.9	4183036.2	1.2	10.00	0.12	4.65	
L0005004	0	0.72900E-06	564372.2	4183036.0	1.2	10.00	0.12	4.65	
L0005005	0	0.72900E-06	564372.4	4183036.0	1.2	10.00	0.12	4.65	
L0005006	0	0.72900E-06	564372.7	4183036.0	1.2	10.00	0.12	4.65	
L0005007	0	0.72900E-06	564372.9	4183036.0	1.2	10.00	0.12	4.65	
L0005008	0	0.72900E-06	564373.1	4183035.8	1.2	10.00	0.12	4.65	
L0005009	0	0.72900E-06	564373.4	4183035.8	1.2	10.00	0.12	4.65	
L0005010	0	0.72900E-06	564373.6	4183035.8	1.2	10.00	0.12	4.65	
L0005011	0	0.72900E-06	564373.9	4183035.5	1.2	10.00	0.12	4.65	
L0005012	0	0.72900E-06	564374.1	4183035.5	1.2	10.00	0.12	4.65	
L0005013	0	0.72900E-06	564374.3	4183035.5	1.2	10.00	0.12	4.65	
L0005014	0	0.72900E-06	564374.6	4183035.5	1.2	10.00	0.12	4.65	
L0005015	0	0.72900E-06	564374.8	4183035.2	1.2	10.00	0.12	4.65	
L0005016	0	0.72900E-06	564375.1	4183035.2	1.2	10.00	0.12	4.65	
L0005017	0	0.72900E-06	564375.3	4183035.2	1.2	10.00	0.12	4.65	
L0005018	0	0.72900E-06	564375.6	4183035.0	1.2	10.00	0.12	4.65	
L0005019	0	0.72900E-06	564375.8	4183035.0	1.2	10.00	0.12	4.65	
L0005020	0	0.72900E-06	564376.0	4183035.0	1.2	10.00	0.12	4.65	

L0005021	0	0.72900E-06	564376.2	4183035.0	1.2	10.00	0.12	4.65
L0005022	0	0.72900E-06	564376.5	4183034.8	1.2	10.00	0.12	4.65
L0005023	0	0.72900E-06	564376.8	4183034.8	1.2	10.00	0.12	4.65
L0005024	0	0.72900E-06	564377.0	4183034.8	1.2	10.00	0.12	4.65
L0005025	0	0.72900E-06	564377.2	4183034.5	1.2	10.00	0.12	4.65
L0005026	0	0.72900E-06	564377.4	4183034.5	1.2	10.00	0.12	4.65
L0005027	0	0.72900E-06	564377.7	4183034.5	1.2	10.00	0.12	4.65
L0005028	0	0.72900E-06	564377.9	4183034.5	1.2	10.00	0.12	4.65
L0005029	0	0.72900E-06	564378.2	4183034.3	1.3	10.00	0.12	4.65
L0005030	0	0.72900E-06	564378.4	4183034.3	1.3	10.00	0.12	4.65
L0005031	0	0.72900E-06	564378.6	4183034.3	1.3	10.00	0.12	4.65
L0005032	0	0.72900E-06	564378.9	4183034.0	1.3	10.00	0.12	4.65
L0005033	0	0.72900E-06	564379.1	4183034.0	1.3	10.00	0.12	4.65
L0005034	0	0.72900E-06	564379.4	4183034.0	1.3	10.00	0.12	4.65
L0005035	0	0.72900E-06	564379.6	4183034.0	1.3	10.00	0.12	4.65
L0005036	0	0.72900E-06	564379.9	4183033.8	1.3	10.00	0.12	4.65
L0005037	0	0.72900E-06	564380.1	4183033.8	1.3	10.00	0.12	4.65
L0005038	0	0.72900E-06	564380.3	4183033.8	1.3	10.00	0.12	4.65
L0005039	0	0.72900E-06	564380.6	4183033.5	1.3	10.00	0.12	4.65
L0005040	0	0.72900E-06	564380.8	4183033.5	1.3	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0005041	0	0.72900E-06	564381.1	4183033.5	1.3	10.00	0.12	4.65	
L0005042	0	0.72900E-06	564381.3	4183033.5	1.3	10.00	0.12	4.65	
L0005043	0	0.72900E-06	564381.5	4183033.3	1.3	10.00	0.12	4.65	
L0005044	0	0.72900E-06	564381.8	4183033.3	1.3	10.00	0.12	4.65	
L0005045	0	0.72900E-06	564382.0	4183033.3	1.3	10.00	0.12	4.65	
L0005046	0	0.72900E-06	564382.2	4183033.0	1.3	10.00	0.12	4.65	
L0005047	0	0.72900E-06	564382.5	4183033.0	1.3	10.00	0.12	4.65	
L0005048	0	0.72900E-06	564382.8	4183033.0	1.3	10.00	0.12	4.65	
L0005049	0	0.72900E-06	564382.9	4183033.0	1.3	10.00	0.12	4.65	
L0005050	0	0.72900E-06	564383.2	4183032.8	1.3	10.00	0.12	4.65	
L0005051	0	0.72900E-06	564383.4	4183032.8	1.3	10.00	0.12	4.65	
L0005052	0	0.72900E-06	564383.7	4183032.8	1.3	10.00	0.12	4.65	
L0005053	0	0.72900E-06	564383.9	4183032.5	1.3	10.00	0.12	4.65	
L0005054	0	0.72900E-06	564384.2	4183032.5	1.1	10.00	0.12	4.65	
L0005055	0	0.72900E-06	564384.4	4183032.5	1.1	10.00	0.12	4.65	
L0005056	0	0.72900E-06	564384.6	4183032.2	1.1	10.00	0.12	4.65	
L0005057	0	0.72900E-06	564384.9	4183032.2	1.1	10.00	0.12	4.65	
L0005058	0	0.72900E-06	564385.1	4183032.2	1.1	10.00	0.12	4.65	
L0005059	0	0.72900E-06	564385.4	4183032.2	1.1	10.00	0.12	4.65	
L0005060	0	0.72900E-06	564385.6	4183032.0	1.1	10.00	0.12	4.65	

L0005061	0	0.72900E-06	564385.8	4183032.0	1.1	10.00	0.12	4.65
L0005062	0	0.72900E-06	564386.1	4183032.0	1.1	10.00	0.12	4.65
L0005063	0	0.72900E-06	564386.3	4183031.8	1.3	10.00	0.12	4.65
L0005064	0	0.72900E-06	564386.6	4183031.8	1.3	10.00	0.12	4.65
L0005065	0	0.72900E-06	564386.8	4183031.8	1.3	10.00	0.12	4.65
L0005066	0	0.72900E-06	564387.1	4183031.8	1.3	10.00	0.12	4.65
L0005067	0	0.72900E-06	564387.3	4183031.5	1.3	10.00	0.12	4.65
L0005068	0	0.72900E-06	564387.5	4183031.5	1.3	10.00	0.12	4.65
L0005069	0	0.72900E-06	564387.8	4183031.5	1.2	10.00	0.12	4.65
L0005070	0	0.72900E-06	564388.0	4183031.2	1.2	10.00	0.12	4.65
L0005071	0	0.72900E-06	564388.2	4183031.2	1.2	10.00	0.12	4.65
L0005072	0	0.72900E-06	564388.5	4183031.2	1.2	10.00	0.12	4.65
L0005073	0	0.72900E-06	564388.7	4183031.2	1.2	10.00	0.12	4.65
L0005074	0	0.72900E-06	564388.9	4183031.0	1.2	10.00	0.12	4.65
L0005075	0	0.72900E-06	564389.2	4183031.0	1.2	10.00	0.12	4.65
L0005076	0	0.72900E-06	564389.4	4183031.0	1.2	10.00	0.12	4.65
L0005077	0	0.72900E-06	564389.7	4183030.8	1.2	10.00	0.12	4.65
L0005078	0	0.72900E-06	564389.9	4183030.8	1.2	10.00	0.12	4.65
L0005079	0	0.72900E-06	564390.1	4183030.8	1.2	10.00	0.12	4.65
L0005080	0	0.72900E-06	564390.4	4183030.8	1.2	10.00	0.12	4.65

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CONC

RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
L0005081	0	0.72900E-06	564390.6	4183030.5	1.2	10.00	0.12	4.65	
L0005082	0	0.72900E-06	564390.9	4183030.5	1.2	10.00	0.12	4.65	
L0005083	0	0.72900E-06	564391.1	4183030.5	1.2	10.00	0.12	4.65	
L0005084	0	0.72900E-06	564391.4	4183030.2	1.2	10.00	0.12	4.65	
L0005085	0	0.72900E-06	564391.6	4183030.2	1.2	10.00	0.12	4.65	
L0005086	0	0.72900E-06	564391.8	4183030.2	1.2	10.00	0.12	4.65	
L0005087	0	0.72900E-06	564392.1	4183030.2	1.2	10.00	0.12	4.65	
L0005088	0	0.72900E-06	564392.3	4183030.0	1.2	10.00	0.12	4.65	
L0005089	0	0.72900E-06	564392.6	4183030.0	1.2	10.00	0.12	4.65	
L0005090	0	0.72900E-06	564392.8	4183030.0	1.2	10.00	0.12	4.65	
L0005091	0	0.72900E-06	564393.0	4183029.8	1.2	10.00	0.12	4.65	
L0005092	0	0.72900E-06	564393.2	4183029.8	1.2	10.00	0.12	4.65	
L0005093	0	0.72900E-06	564393.5	4183029.8	1.2	10.00	0.12	4.65	
L0005094	0	0.72900E-06	564393.8	4183029.8	1.2	10.00	0.12	4.65	
L0005095	0	0.72900E-06	564394.0	4183029.5	1.2	10.00	0.12	4.65	
L0005096	0	0.72900E-06	564394.2	4183029.5	1.2	10.00	0.12	4.65	
L0005097	0	0.72900E-06	564394.4	4183029.5	1.2	10.00	0.12	4.65	
L0005098	0	0.72900E-06	564394.7	4183029.2	1.2	10.00	0.12	4.65	
L0005099	0	0.72900E-06	564394.9	4183029.2	1.2	10.00	0.12	4.65	
L0005100	0	0.72900E-06	564395.2	4183029.2	1.2	10.00	0.12	4.65	

L0005101	0	0.72900E-06	564395.4	4183029.2	1.2	10.00	0.12	4.65
L0005102	0	0.72900E-06	564395.6	4183029.0	1.2	10.00	0.12	4.65
L0005103	0	0.72900E-06	564395.9	4183029.0	1.2	10.00	0.12	4.65
L0005104	0	0.72900E-06	564396.1	4183029.0	1.2	10.00	0.12	4.65
L0005105	0	0.72900E-06	564396.4	4183028.8	1.2	10.00	0.12	4.65
L0005106	0	0.72900E-06	564396.6	4183028.8	1.2	10.00	0.12	4.65
L0005107	0	0.72900E-06	564396.9	4183028.8	1.2	10.00	0.12	4.65
L0005108	0	0.72900E-06	564397.1	4183028.8	1.2	10.00	0.12	4.65
L0005109	0	0.72900E-06	564397.3	4183028.5	1.2	10.00	0.12	4.65
L0005110	0	0.72900E-06	564397.6	4183028.5	1.2	10.00	0.12	4.65
L0005111	0	0.72900E-06	564397.8	4183028.5	1.2	10.00	0.12	4.65
L0005112	0	0.72900E-06	564398.1	4183028.2	1.2	10.00	0.12	4.65
L0005113	0	0.72900E-06	564398.3	4183028.2	1.2	10.00	0.12	4.65
L0005114	0	0.72900E-06	564398.5	4183028.2	1.2	10.00	0.12	4.65
L0005115	0	0.72900E-06	564398.8	4183028.2	1.2	10.00	0.12	4.65
L0005116	0	0.72900E-06	564399.0	4183028.0	1.2	10.00	0.12	4.65
L0005117	0	0.72900E-06	564399.2	4183028.0	1.2	10.00	0.12	4.65
L0005118	0	0.72900E-06	564399.5	4183028.0	1.2	10.00	0.12	4.65
L0005119	0	0.72900E-06	564399.8	4183027.8	1.2	10.00	0.12	4.65
L0005120	0	0.72900E-06	564399.9	4183027.8	1.2	10.00	0.12	4.65

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*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
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L0005122	0	0.72900E-06	564400.4	4183027.8	1.3	10.00	0.12	4.65	
L0005123	0	0.72900E-06	564400.7	4183027.5	1.3	10.00	0.12	4.65	
L0005124	0	0.72900E-06	564400.9	4183027.5	1.3	10.00	0.12	4.65	
L0005125	0	0.72900E-06	564401.2	4183027.5	1.3	10.00	0.12	4.65	
L0005126	0	0.72900E-06	564401.4	4183027.2	1.3	10.00	0.12	4.65	
L0005127	0	0.72900E-06	564401.6	4183027.2	1.3	10.00	0.12	4.65	
L0005128	0	0.72900E-06	564401.9	4183027.2	1.3	10.00	0.12	4.65	
L0005129	0	0.72900E-06	564402.1	4183027.2	1.3	10.00	0.12	4.65	
L0005130	0	0.72900E-06	564402.4	4183027.0	1.3	10.00	0.12	4.65	
L0005131	0	0.72900E-06	564402.6	4183027.0	1.3	10.00	0.12	4.65	
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L0005133	0	0.72900E-06	564403.1	4183026.8	1.3	10.00	0.12	4.65	
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L0005135	0	0.72900E-06	564403.6	4183026.8	1.3	10.00	0.12	4.65	
L0005136	0	0.72900E-06	564403.8	4183026.8	1.3	10.00	0.12	4.65	
L0005137	0	0.72900E-06	564404.1	4183026.5	1.3	10.00	0.12	4.65	
L0005138	0	0.72900E-06	564404.2	4183026.5	1.3	10.00	0.12	4.65	
L0005139	0	0.72900E-06	564404.5	4183026.5	1.3	10.00	0.12	4.65	
L0005140	0	0.72900E-06	564404.8	4183026.2	1.4	10.00	0.12	4.65	

L0005141	0	0.72900E-06	564405.0	4183026.2	1.4	10.00	0.12	4.65
L0005142	0	0.72900E-06	564405.2	4183026.2	1.4	10.00	0.12	4.65
L0005143	0	0.72900E-06	564405.5	4183026.0	1.4	10.00	0.12	4.65
L0005144	0	0.72900E-06	564405.7	4183026.0	1.4	10.00	0.12	4.65
L0005145	0	0.72900E-06	564405.9	4183026.0	1.4	10.00	0.12	4.65
L0005146	0	0.72900E-06	564406.2	4183026.0	1.4	10.00	0.12	4.65
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L0005152	0	0.72900E-06	564407.6	4183025.5	1.5	10.00	0.12	4.65
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L0005158	0	0.72900E-06	564409.1	4183025.0	1.7	10.00	0.12	4.65
L0005159	0	0.72900E-06	564409.3	4183025.0	1.7	10.00	0.12	4.65
L0005160	0	0.72900E-06	564409.6	4183025.0	1.7	10.00	0.12	4.65

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RURAL ELEV

DFAULT

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.	EMISSION RATE
ID	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SCALAR VARY
	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0005161	0	0.72900E-06	564409.8	4183024.8	1.7	10.00	0.12	4.65	
L0005162	0	0.72900E-06	564410.0	4183024.8	1.7	10.00	0.12	4.65	
L0005163	0	0.72900E-06	564410.2	4183024.8	1.7	10.00	0.12	4.65	
L0005164	0	0.72900E-06	564410.5	4183024.5	1.7	10.00	0.12	4.65	
L0005165	0	0.72900E-06	564410.8	4183024.5	1.7	10.00	0.12	4.65	
L0005166	0	0.72900E-06	564411.0	4183024.5	1.8	10.00	0.12	4.65	
L0005167	0	0.72900E-06	564411.2	4183024.5	1.8	10.00	0.12	4.65	

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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GROUP ID

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

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RURAL ELEV

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L0005065, L0005066, L0005067, L0005068, L0005069, L0005070, L0005071, L0005072, L0005073,
L0005074, L0005075, L0005076,

L0005077, L0005078, L0005079, L0005080, L0005081, L0005082, L0005083, L0005084, L0005085,
L0005086, L0005087, L0005088,

L0005089, L0005090, L0005091, L0005092, L0005093, L0005094, L0005095, L0005096, L0005097,
L0005098, L0005099, L0005100,

L0005101, L0005102, L0005103, L0005104, L0005105, L0005106, L0005107, L0005108, L0005109,
L0005110, L0005111, L0005112,

L0005113, L0005114, L0005115, L0005116, L0005117, L0005118, L0005119, L0005120, L0005121,
L0005122, L0005123, L0005124,

L0005125, L0005126, L0005127, L0005128, L0005129, L0005130, L0005131, L0005132, L0005133,
L0005134, L0005135, L0005136,

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CONC RURAL ELEV DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

L0005137, L0005138, L0005139, L0005140, L0005141, L0005142, L0005143, L0005144, L0005145,
L0005146, L0005147, L0005148,

L0005149, L0005150, L0005151, L0005152, L0005153, L0005154, L0005155, L0005156, L0005157,
L0005158, L0005159, L0005160,

L0005161, L0005162, L0005163, L0005164, L0005165, L0005166, L0005167, STCK1 ,

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CONC

RURAL ELEV

DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK
(SHRDOWN) *

SOURCE ID = STCK1 ; SOURCE TYPE = POINT :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR
SCALAR	HOUR	SCALAR										

SEASON = WINTER; DAY OF WEEK = WEEKDAY												
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.1000E+01	7
.1000E+01	8	.1000E+01										
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15
.1000E+01	16	.1000E+01										
17	.1000E+01	18	.1000E+01	19	.1000E+01	20	.1000E+01	21	.1000E+01	22	.0000E+00	23
.0000E+00	24	.0000E+00										

SEASON = SPRING; DAY OF WEEK = WEEKDAY												
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.1000E+01	7
.1000E+01	8	.1000E+01										
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15
.1000E+01	16	.1000E+01										
17	.1000E+01	18	.1000E+01	19	.1000E+01	20	.1000E+01	21	.1000E+01	22	.0000E+00	23
.0000E+00	24	.0000E+00										

SEASON = SUMMER; DAY OF WEEK = WEEKDAY												
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.1000E+01	7
.1000E+01	8	.1000E+01										
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15
.1000E+01	16	.1000E+01										
17	.1000E+01	18	.1000E+01	19	.1000E+01	20	.1000E+01	21	.1000E+01	22	.1000E+01	23
.0000E+00	24	.0000E+00										

SEASON = FALL ; DAY OF WEEK = WEEKDAY

9	.5200E+00	10	.5200E+00	11	.5200E+00	12	.5200E+00	13	.5200E+00	14	.5200E+00	15	.5200E+00	16	.5200E+00
17	.5200E+00	18	.1000E+01	19	.5200E+00	20	.5200E+00	21	.5200E+00	22	.5200E+00	23	.5200E+00	24	.0000E+00
SEASON = SPRING; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.5200E+00	10	.5200E+00	11	.5200E+00	12	.5200E+00	13	.5200E+00	14	.5200E+00	15	.5200E+00	16	.5200E+00
17	.5200E+00	18	.5200E+00	19	.5200E+00	20	.5200E+00	21	.5200E+00	22	.5200E+00	23	.5200E+00	24	.0000E+00
SEASON = SUMMER; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.5200E+00	10	.5200E+00	11	.5200E+00	12	.5200E+00	13	.5200E+00	14	.5200E+00	15	.5200E+00	16	.5200E+00
17	.5200E+00	18	.5200E+00	19	.5200E+00	20	.5200E+00	21	.5200E+00	22	.5200E+00	23	.5200E+00	24	.0000E+00
SEASON = FALL ; DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.5200E+00	10	.5200E+00	11	.5200E+00	12	.5200E+00	13	.5200E+00	14	.5200E+00	15	.5200E+00	16	.5200E+00
17	.5200E+00	18	.5200E+00	19	.5200E+00	20	.5200E+00	21	.5200E+00	22	.5200E+00	23	.5200E+00	24	.0000E+00

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CONC

RURAL ELEV

DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(563595.1, 4183387.2, 3.5, 0.0);	(563614.2, 4183379.5, 3.0,
0.0);	
(563635.2, 4183371.8, 2.0, 0.0);	(563590.3, 4183374.8, 3.9,
0.0);	
(563607.7, 4183367.0, 3.2, 0.0);	(563628.0, 4183356.8, 2.4,
0.0);	
(563584.3, 4183360.5, 4.0, 0.0);	(563601.7, 4183351.5, 3.8,
0.0);	
(563621.4, 4183339.5, 2.2, 0.0);	(563578.4, 4183341.8, 4.0,
0.0);	
(563593.9, 4183332.3, 3.8, 0.0);	(563612.4, 4183324.5, 3.9,
0.0);	
(564031.9, 4183151.5, -0.2, 0.0);	(564043.9, 4183146.8, -0.4,
0.0);	
(564054.1, 4183143.2, 0.3, 0.0);	(564022.9, 4183137.8, -1.9,
0.0);	
(564037.9, 4183133.0, -1.1, 0.0);	(564048.1, 4183126.5, 0.1,
0.0);	
(564016.4, 4183125.8, -1.0, 0.0);	(564027.8, 4183121.0, -1.4,
0.0);	
(564040.9, 4183114.5, -0.9, 0.0);	(564009.2, 4183113.2, -1.6,
0.0);	
(564022.9, 4183108.5, -1.3, 0.0);	(564036.1, 4183103.8, -0.8,
0.0);	

```
( 564002.6, 4183103.8,      -2.0,      0.0);      ( 564013.9, 4183097.8,      -1.5,  
0.0);  
  ( 564028.3, 4183092.2,      -0.8,      0.0);
```


*** WIND PROFILE EXPONENTS ***

6	STABILITY CATEGORY	WIND SPEED CATEGORY				
		1	2	3	4	5
	A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
.70000E-01	B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
.70000E-01	C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
.10000E+00	D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
.15000E+00	E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
.35000E+00	F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00
.55000E+00						

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

6	STABILITY CATEGORY	WIND SPEED CATEGORY				
		1	2	3	4	5
	A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
.00000E+00	E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
.20000E-01						

.35000E-01	F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01
------------	---	------------	------------	------------	------------	------------

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CONC

RURAL ELEV

DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: POK98600.ASC

FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)

SURFACE STATION NO.: 1805

UPPER AIR STATION NO.: 1805

NAME: UNKNOWN

NAME: UNKNOWN

YEAR: 1998

YEAR: 1998

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING RURAL	HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
98	01	01	01	282.0	1.88	293.0	5	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	02	320.0	1.79	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	03	326.0	1.16	293.0	5	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	04	321.0	1.25	293.0	5	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	05	341.0	1.00	293.0	6	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	06	335.0	1.00	293.0	6	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	07	71.0	1.00	293.0	6	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	08	152.0	1.79	293.0	5	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	09	157.0	1.00	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	10	4.0	1.03	293.0	3	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	11	338.0	2.19	293.0	3	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	12	339.0	3.13	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	13	327.0	2.95	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	14	8.0	1.43	293.0	3	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	15	347.0	2.01	293.0	3	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	16	2.0	3.84	293.0	3	600.0	600.0	0.0000	0.0	0.0000	0	0.00

98	01	01	17	6.0	4.74	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	18	5.0	5.59	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	19	325.0	3.04	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	20	311.0	2.77	293.0	5	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	21	315.0	3.13	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	22	327.0	3.17	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	23	332.0	4.38	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00
98	01	01	24	321.0	4.56	293.0	4	600.0	600.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

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CONC

RURAL ELEV

DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP1 ***
INCLUDING SOURCE(S): L0000001, L0000002, L0000003, L0000004,
L0000005, L0000006, L0000007,
L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016,
L0000017, L0000018, L0000019,
L0000020, L0000021, L0000022, L0000023, L0000024, L0000025, L0000026, L0000027, L0000028,
L0000029, L0000030, . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
CONC					
0.05850	563595.12	4183387.25	0.06073	563614.25	4183379.50
0.05393	563635.19	4183371.75	0.05438	563590.31	4183374.75
0.04669	563607.69	4183367.00	0.05064	563628.00	4183356.75
0.04635	563584.31	4183360.50	0.04686	563601.69	4183351.50
0.03968	563621.44	4183339.50	0.03830	563578.38	4183341.75
0.04049	563593.94	4183332.25	0.03909	563612.44	4183324.50

0.03915	564031.94	4183151.50	0.03961	564043.88	4183146.75
0.02909	564054.06	4183143.25	0.04318	564022.94	4183137.75
0.03678	564037.88	4183133.00	0.03207	564048.06	4183126.50
0.02826	564016.38	4183125.75	0.02949	564027.75	4183121.00
0.02561	564040.88	4183114.50	0.03009	564009.19	4183113.25
0.02827	564022.94	4183108.50	0.02659	564036.13	4183103.75
0.02430	564002.56	4183103.75	0.02315	564013.94	4183097.75
	564028.31	4183092.25	0.02637		

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CONC RURAL ELEV DFAULT

 *** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
 GROUP: SRCGP2 ***
 INCLUDING SOURCE(S): STCK1 ,

 *** DISCRETE CARTESIAN RECEPTOR POINTS ***

 ** CONC OF CO IN MICROGRAMS/M**3

**

	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
CONC					
-----	-----	-----	-----	-----	-----
	563595.12	4183387.25	0.02067	563614.25	4183379.50
0.02300					
	563635.19	4183371.75	0.02338	563590.31	4183374.75
0.02473					
	563607.69	4183367.00	0.02652	563628.00	4183356.75
0.02639					
	563584.31	4183360.50	0.02968	563601.69	4183351.50
0.03143					
	563621.44	4183339.50	0.02822	563578.38	4183341.75
0.03551					
	563593.94	4183332.25	0.03516	563612.44	4183324.50
0.03337					
	564031.94	4183151.50	0.00514	564043.88	4183146.75
0.00498					
	564054.06	4183143.25	0.00496	564022.94	4183137.75
0.00495					

0.00496	564037.88	4183133.00	0.00490	564048.06	4183126.50
0.00494	564016.38	4183125.75	0.00512	564027.75	4183121.00
0.00509	564040.88	4183114.50	0.00488	564009.19	4183113.25
0.00493	564022.94	4183108.50	0.00499	564036.13	4183103.75
0.00505	564002.56	4183103.75	0.00509	564013.94	4183097.75
	564028.31	4183092.25	0.00501		

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CONC

RURAL ELEV

DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: ALL ***
INCLUDING SOURCE(S): L0000001, L0000002, L0000003, L0000004,
L0000005, L0000006, L0000007,
L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016,
L0000017, L0000018, L0000019,
L0000020, L0000021, L0000022, L0000023, L0000024, L0000025, L0000026, L0000027, L0000028,
L0000029, L0000030, . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)
0.08128	563595.12	4183387.25	0.08123	563614.25	4183379.50
0.07854	563635.19	4183371.75	0.07753	563590.31	4183374.75
0.07296	563607.69	4183367.00	0.07704	563628.00	4183356.75
0.07762	563584.31	4183360.50	0.07639	563601.69	4183351.50
0.07504	563621.44	4183339.50	0.06641	563578.38	4183341.75
0.07371	563593.94	4183332.25	0.07410	563612.44	4183324.50

0.04406	564031.94	4183151.50	0.04468	564043.88	4183146.75
0.03396	564054.06	4183143.25	0.04810	564022.94	4183137.75
0.04169	564037.88	4183133.00	0.03690	564048.06	4183126.50
0.03312	564016.38	4183125.75	0.03454	564027.75	4183121.00
0.03066	564040.88	4183114.50	0.03490	564009.19	4183113.25
0.03314	564022.94	4183108.50	0.03155	564036.13	4183103.75
0.02933	564002.56	4183103.75	0.02822	564013.94	4183097.75
	564028.31	4183092.25	0.03134		

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CONC

RURAL ELEV

DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP1 ***
INCLUDING SOURCE(S): L0000001, L0000002, L0000003, L0000004,
L0000005, L0000006, L0000007,
L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016,
L0000017, L0000018, L0000019,
L0000020, L0000021, L0000022, L0000023, L0000024, L0000025, L0000026, L0000027, L0000028,
L0000029, L0000030, . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

CONC	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)
2.21017	563595.12	4183387.25	2.29319	(98091221)	563614.25	4183379.50
1.89945	(98091221)	563635.19	2.16122	(98012123)	563590.31	4183374.75
1.70901	(98091221)	563607.69	1.83588	(98091221)	563628.00	4183356.75
1.53155	(98021722)	563584.31	1.56106	(98021722)	563601.69	4183351.50
1.23463	(98032522)	563621.44	1.32284	(98021722)	563578.38	4183341.75
1.20933	(98032201)	563593.94	1.19432	(98032201)	563612.44	4183324.50

564031.94	4183151.50	1.09494	(98111304)	564043.88	4183146.75
1.11855	(98111304)				
564054.06	4183143.25	1.24565	(98111304)	564022.94	4183137.75
0.77310	(98042723)				
564037.88	4183133.00	0.84373	(98042723)	564048.06	4183126.50
0.96862	(98042723)				
564016.38	4183125.75	0.78071	(98042723)	564027.75	4183121.00
0.76450	(98042723)				
564040.88	4183114.50	0.81557	(98042723)	564009.19	4183113.25
0.64891	(98022701)				
564022.94	4183108.50	0.67471	(98022701)	564036.13	4183103.75
0.71855	(98042723)				
564002.56	4183103.75	0.59428	(98022701)	564013.94	4183097.75
0.62513	(98022701)				
564028.31	4183092.25	0.67851	(98022701)		

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CONC

RURAL ELEV

DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: SRCGP2 ***
INCLUDING SOURCE(S): STCK1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

CONC	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)
0.57887	563595.12	4183387.25	0.60346	(98091620)	563614.25	4183379.50
	(98062420)					
0.66314	563635.19	4183371.75	0.50604	(98100107)	563590.31	4183374.75
	(98113020)					
0.53537	563607.69	4183367.00	0.60374	(98111706)	563628.00	4183356.75
	(98052619)					
0.66169	563584.31	4183360.50	0.69705	(98112322)	563601.69	4183351.50
	(98080620)					
0.71269	563621.44	4183339.50	0.53300	(98092522)	563578.38	4183341.75
	(98070920)					
0.67147	563593.94	4183332.25	0.68574	(98082521)	563612.44	4183324.50
	(98050720)					
0.26388	564031.94	4183151.50	0.27171	(98041621)	564043.88	4183146.75
	(98041621)					
0.25471	564054.06	4183143.25	0.26699	(98111721)	564022.94	4183137.75
	(98111721)					

564037.88	4183133.00	0.26220	(98111721)	564048.06	4183126.50
0.27582	(98111721)				
564016.38	4183125.75	0.26857	(98111117)	564027.75	4183121.00
0.26028	(98111117)				
564040.88	4183114.50	0.26338	(98111117)	564009.19	4183113.25
0.25773	(98082809)				
564022.94	4183108.50	0.25958	(98082809)	564036.13	4183103.75
0.26359	(98082809)				
564002.56	4183103.75	0.25601	(98112418)	564013.94	4183097.75
0.25950	(98112617)				
564028.31	4183092.25	0.26532	(98112617)		

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CONC

RURAL ELEV

DFAULT

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE
GROUP: ALL ***
INCLUDING SOURCE(S): L0000001, L0000002, L0000003, L0000004,
L0000005, L0000006, L0000007,
L0000008, L0000009, L0000010, L0000011, L0000012, L0000013, L0000014, L0000015, L0000016,
L0000017, L0000018, L0000019,
L0000020, L0000021, L0000022, L0000023, L0000024, L0000025, L0000026, L0000027, L0000028,
L0000029, L0000030, . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

CONC	X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)
2.21017	563595.12 (98091221)	4183387.25	2.29319	(98091221)	563614.25	4183379.50
1.89945	563635.19 (98091221)	4183371.75	2.16122	(98012123)	563590.31	4183374.75
1.70901	563607.69 (98091221)	4183367.00	1.83588	(98091221)	563628.00	4183356.75
1.53155	563584.31 (98021722)	4183360.50	1.56106	(98021722)	563601.69	4183351.50
1.23463	563621.44 (98032522)	4183339.50	1.32284	(98021722)	563578.38	4183341.75
1.20933	563593.94 (98032201)	4183332.25	1.19432	(98032201)	563612.44	4183324.50

564031.94	4183151.50	1.09494	(98111304)	564043.88	4183146.75
1.11855	(98111304)				
564054.06	4183143.25	1.24565	(98111304)	564022.94	4183137.75
0.77310	(98042723)				
564037.88	4183133.00	0.84373	(98042723)	564048.06	4183126.50
0.96862	(98042723)				
564016.38	4183125.75	0.78071	(98042723)	564027.75	4183121.00
0.76450	(98042723)				
564040.88	4183114.50	0.81557	(98042723)	564009.19	4183113.25
0.64891	(98022701)				
564022.94	4183108.50	0.67471	(98022701)	564036.13	4183103.75
0.71855	(98042723)				
564002.56	4183103.75	0.59428	(98022701)	564013.94	4183097.75
0.62513	(98022701)				
564028.31	4183092.25	0.67851	(98022701)		

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CONC

RURAL ELEV

DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

NETWORK
GROUP ID
GRID-ID

AVERAGE CONC

RECEPTOR (XR, YR, ZELEV, ZFLAG) OF TYPE

SRCGP1	1ST HIGHEST VALUE IS	0.06073 AT (	563595.12,	4183387.25,	3.53,	0.00)	DC
NA	2ND HIGHEST VALUE IS	0.05850 AT (	563614.25,	4183379.50,	2.99,	0.00)	DC
NA	3RD HIGHEST VALUE IS	0.05438 AT (	563635.19,	4183371.75,	1.99,	0.00)	DC
NA	4TH HIGHEST VALUE IS	0.05393 AT (	563590.31,	4183374.75,	3.89,	0.00)	DC
NA	5TH HIGHEST VALUE IS	0.05064 AT (	563607.69,	4183367.00,	3.20,	0.00)	DC
NA	6TH HIGHEST VALUE IS	0.04686 AT (	563584.31,	4183360.50,	4.00,	0.00)	DC
NA	7TH HIGHEST VALUE IS	0.04669 AT (	563628.00,	4183356.75,	2.37,	0.00)	DC
NA	8TH HIGHEST VALUE IS	0.04635 AT (	563601.69,	4183351.50,	3.81,	0.00)	DC

NA	9TH HIGHEST VALUE IS	0.04318 AT (	564054.06,	4183143.25,	0.30,	0.00)	DC
NA	10TH HIGHEST VALUE IS	0.04049 AT (	563612.44,	4183324.50,	3.94,	0.00)	DC
SRCGP2	1ST HIGHEST VALUE IS	0.03551 AT (	563578.38,	4183341.75,	3.96,	0.00)	DC
NA	2ND HIGHEST VALUE IS	0.03516 AT (	563593.94,	4183332.25,	3.83,	0.00)	DC
NA	3RD HIGHEST VALUE IS	0.03337 AT (	563612.44,	4183324.50,	3.94,	0.00)	DC
NA	4TH HIGHEST VALUE IS	0.03143 AT (	563601.69,	4183351.50,	3.81,	0.00)	DC
NA	5TH HIGHEST VALUE IS	0.02968 AT (	563584.31,	4183360.50,	4.00,	0.00)	DC
NA	6TH HIGHEST VALUE IS	0.02822 AT (	563621.44,	4183339.50,	2.21,	0.00)	DC
NA	7TH HIGHEST VALUE IS	0.02652 AT (	563607.69,	4183367.00,	3.20,	0.00)	DC
NA	8TH HIGHEST VALUE IS	0.02639 AT (	563628.00,	4183356.75,	2.37,	0.00)	DC
NA	9TH HIGHEST VALUE IS	0.02473 AT (	563590.31,	4183374.75,	3.89,	0.00)	DC
NA	10TH HIGHEST VALUE IS	0.02338 AT (	563635.19,	4183371.75,	1.99,	0.00)	DC
ALL	1ST HIGHEST VALUE IS	0.08128 AT (	563614.25,	4183379.50,	2.99,	0.00)	DC
NA	2ND HIGHEST VALUE IS	0.08123 AT (	563595.12,	4183387.25,	3.53,	0.00)	DC
NA	3RD HIGHEST VALUE IS	0.07854 AT (	563590.31,	4183374.75,	3.89,	0.00)	DC
NA	4TH HIGHEST VALUE IS	0.07762 AT (	563601.69,	4183351.50,	3.81,	0.00)	DC
NA	5TH HIGHEST VALUE IS	0.07753 AT (	563635.19,	4183371.75,	1.99,	0.00)	DC
NA	6TH HIGHEST VALUE IS	0.07704 AT (	563607.69,	4183367.00,	3.20,	0.00)	DC

NA	7TH HIGHEST VALUE IS	0.07639 AT (	563584.31,	4183360.50,	4.00,	0.00)	DC
NA	8TH HIGHEST VALUE IS	0.07504 AT (	563578.38,	4183341.75,	3.96,	0.00)	DC
NA	9TH HIGHEST VALUE IS	0.07410 AT (	563593.94,	4183332.25,	3.83,	0.00)	DC
NA	10TH HIGHEST VALUE IS	0.07371 AT (	563612.44,	4183324.50,	3.94,	0.00)	DC

*** RECEPTOR TYPES:

- GC = GRIDCART
- GP = GRIDPOLR
- DC = DISCCART
- DP = DISCPOLR
- BD = BOUNDARY

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CONC

RURAL ELEV

DFAULT

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3

**

NETWORK	GROUP ID	OF TYPE	GRID-ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV,
ZFLAG)						
SRCGP1	HIGH	1ST HIGH VALUE IS		2.29319	ON 98091221: AT (	563595.12, 4183387.25, 3.53,
0.00)	DC	NA				
SRCGP2	HIGH	1ST HIGH VALUE IS		0.71269	ON 98070920: AT (	563578.38, 4183341.75, 3.96,
0.00)	DC	NA				
ALL	HIGH	1ST HIGH VALUE IS		2.29319	ON 98091221: AT (	563595.12, 4183387.25, 3.53,
0.00)	DC	NA				

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

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**MODELOPTs:

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CONC

RURAL ELEV

DFAULT

*** Message Summary : ISCST3 Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 5 Informational Message(s)
A Total of 5 Calm Hours Identified

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
RE W282 11358 CHK_EL:RecElev < SrcBase; See non-DFAULT HE>ZI option in MCB#9

*** ISCST3 Finishes Successfully ***

APPENDIX E

Sewer Flow Demand

Table 1: Jack London Square, Existing Sewer Demands

Area	Average Day Dry Weather Flow (gpd)	Average Day Wet Weather Flow (gpd)	Peak Hour Dry Weather Flow (gph)	Peak Hour Wet Weather Flow (gph)
Site C	0	0	0	0
Site D	4,800	5,280	1,000	1,050
Pavillion 2	6,000	6,600	1,250	1,313
Water Expansion	2,800	3,080	583	613
66 Franklin	18,800	20,680	3,917	4,113
Site F1	0	0	0	0
Site F2	0	0	0	0
Site F3	0	0	0	0
Site G	0	0	0	0
Total	32,400	35,640	6,750	7,088

Note:

Based on existing development as shown on spreadsheet titled Jack London Square CEQA Project Description GSF, dated 12/16/02.

Table 2: Jack London Square, Net Sewer Demand Increase

Area	Average Day Dry Weather Flow (gpd)	Average Day Wet Weather Flow (gpd)	Peak Hour Dry Weather Flow (gph)	Peak Hour Wet Weather Flow (gph)
Site C	4,900	5,390	1,021	1,072
Site D	35,100	38,610	7,313	7,678
Pavillion 2	1,500	1,650	313	328
Water Expansion	2,600	2,860	542	569
66 Franklin	17,300	19,030	3,604	3,784
Site F1	32,200	35,420	6,708	7,044
Site F2	79,220	87,142	16,504	17,329
Site F3	40,000	44,000	8,333	8,750
Site G	4,000	4,400	833	875
Total	216,820	238,502	45,171	47,429

Note:

Based on '04 Approved Project with May '13 maximum residential development (666 units) considered

WATER DEMAND SOURCES

(Based on Sewer Design Standards 2008 Table 1)

Use	Units	Unit Demand	Units	Source
Office	sf	0.2	gpd/sf	
Specialty Retail	sf	0.1	gpd/sf	
Restaurant	sf	0.1	gpd/sf	
Supermarket	sf	0.1	gpd/sf	
Theater	seats	5	gpd/seat	
Health Club	sf	0.3	gpd/sf	
Hotel	rooms	150	gpd/room	
Hotel Restaurant	sf	0.1	gpd/sf	
Conference/Banquet	sf	0.1	gpd/sf	
Residential Units	units	170	gpd/unit	Assumes 10% studios, 45% one bed, 40% two bed, 5% three bed
Peaking Factor		2.5		Peaking factor based on Port of Oakland and Redwood City
Average Day I/I factor		1.1		
Peak hour I/I factor		1.05		
Peaking hours		12	hours	Hours for average day to determine peak.

EXISTING

WATER DEMAND (AVERAGE DAILY FLOW)

			Site C		Site D		Pavillion 2		Water Expansion		66 Franklin		Site F1		Site F2		Site F3		Site G	
Use	units	Unit Dema	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand
Office	sf		0.2		12,000	2,400					61,200	12,240								
Specialty Retail	sf		0.1		12,000	2,400	30,000	6,000	14,000	2,800	32,600	6,520								
Restaurant	sf		0.1																	
Supermarket	sf		0.1																	
Theater	seats		5																	
Health Club	sf		0.3																	
Hotel	rooms		150																	
Hotel Restaurant	sf		0.1																	
Conference/Banquet	sf		0.1																	
Residential Units	units		170																	
Total Existing Flow			32,400				4,800	6,000		2,800		18,800								

SITE C

WATER DEMAND (AVERAGE DAILY FLOW)

Use	units	Variant 0		Variant 1	
		Unit Dema	Quantity	Quantity	Demand
Office	sf	0.2		16,000	3,200
Specialty Retail	sf	0.1	33,000	17,000	1,700
Restaurant	sf	0.1			
Supermarket	sf	0.1			
Theater	seats	5			
Health Club	sf	0.3			
Hotel	rooms	150			
Hotel Restaurant	sf	0.1			
Conference/Banquet	sf	0.1			
Residential Units	units	170			
Total Flow New Development				3,300	4,900
		4,900			

WATER DEMAND (AVERAGE DAILY FLOW)

[illegible]

PAVILLION 2

WATER DEMAND (AVERAGE DAILY FLOW)

Variant 0				
Use	units	Unit Dema	Quantity	Demand
Office	sf	0.2		
Specialty Retail	sf	0.1	15,000	1,500
Restaurant	sf	0.1		
Supermarket	sf	0.1		
Theater	seats	5		
Health Club	sf	0.3		
Hotel	rooms	150		
Hotel Restaurant	sf	0.1		
Conference/Banquet	sf	0.1		
Residential Units	units	170		
Total Flow New Development				1,500
		1,500		

WATER EXPANSION

WATER DEMAND (AVERAGE DAILY FLOW)

Variant 0				
Use	units	Unit Dema	Quantity	Demand
Office	sf	0.2		
Specialty Retail	sf	0.1	6,000	600
Restaurant	sf	0.1	8,000	800
Supermarket	sf	0.1		
Theater	seats	5		
Health Club	sf	0.3		
Hotel	rooms	150		
Hotel Restaurant	sf	0.1		
Conference/Banquet	sf	0.1	12,000	1,200
Residential Units	units	170		
Total Flow New Development				2,600
		2,600		

66 FRANKLIN

WATER DEMAND (AVERAGE DAILY FLOW)

Use	units	Unit Dema	Variant 0		Variant 1		Variant 1b		Variant 2	
			Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand
Office	sf	0.2	85,300	17,060	48,300	9,660	(35,700)	(7,140)	84,700	16,940
Specialty Retail	sf	0.1			39,400	3,940	26,400	2,640		
Restaurant	sf	0.1	2,400	240						
Supermarket	sf	0.1								
Theater	seats	5								
Health Club	sf	0.3								
Hotel	rooms	150								
Hotel Restaurant	sf	0.1								
Conference/Banquet	sf	0.1								
Residential Units	units	170								
Total Flow New Development				17,300		13,600		(4,500)		16,940
				17,300						

SITE F1

WATER DEMAND (AVERAGE DAILY FLOW)

Use	units	Variant 0		Variant 1	
		Unit Dema	Quantity	Demand	Quantity
Office	sf	0.2	141,000	28,200	77,000
Specialty Retail	sf	0.1	40,000	4,000	123,000
Restaurant	sf	0.1			
Supermarket	sf	0.1			
Theater	seats	5			
Health Club	sf	0.3			
Hotel	rooms	150			
Hotel Restaurant	sf	0.1			
Conference/Banquet	sf	0.1			
Residential Units	units	170			
Total Flow New Development				32,200	27,700
		32,200			

SITE F2

WATER DEMAND (AVERAGE DAILY FLOW)

		Variant 0		Variant 1		Variant 3		Variant 4		Max Residential		
Use	units	Unit Dema	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand	Quantity	Demand
Office	sf	0.2					30,000	6,000	134,000	26,800		
Specialty Retail	sf	0.1	10,000	1,000	10,000	1,000	10,000	1,000	15,000	1,500		
Restaurant	sf	0.1										
Supermarket	sf	0.1										
Theater	seats	5										
Health Club	sf	0.3	40,000	12,000								
Hotel	rooms	150										
Hotel Restaurant	sf	0.1										
Conference/Banquet	sf	0.1										
Residential Units	units	170									466	79,220
Total Flow New Development				13,000		1,000		7,000		28,300		79,220
		79,220										

SITE F3

WATER DEMAND (AVERAGE DAILY FLOW)

Variant 0				
Use	units	Unit Dema	Quantity	Demand
Office	sf	0.2		
Specialty Retail	sf	0.1	10,000	1,000
Restaurant	sf	0.1		
Supermarket	sf	0.1		
Theater	seats	5		
Health Club	sf	0.3		
Hotel	rooms	150	250	37,500
Hotel Restaurant	sf	0.1		
Conference/Banquet	sf	0.1	15,000	1,500
Residential Units	units	170		
Total Flow New Development				40,000
		40,000		

SITE G

WATER DEMAND (AVERAGE DAILY FLOW)

Use	units	Variant 0		Variant 2	
		Unit Dema	Quantity	Quantity	Demand
Office	sf	0.2			
Specialty Retail	sf	0.1			
Restaurant	sf	0.1			
Supermarket	sf	0.1	40,000		4,000
Theater	seats	5			
Health Club	sf	0.3			
Hotel	rooms	150			
Hotel Restaurant	sf	0.1			
Conference/Banquet	sf	0.1			
Residential Units	units	170			
Total Flow New Development					4,000
		4,000			