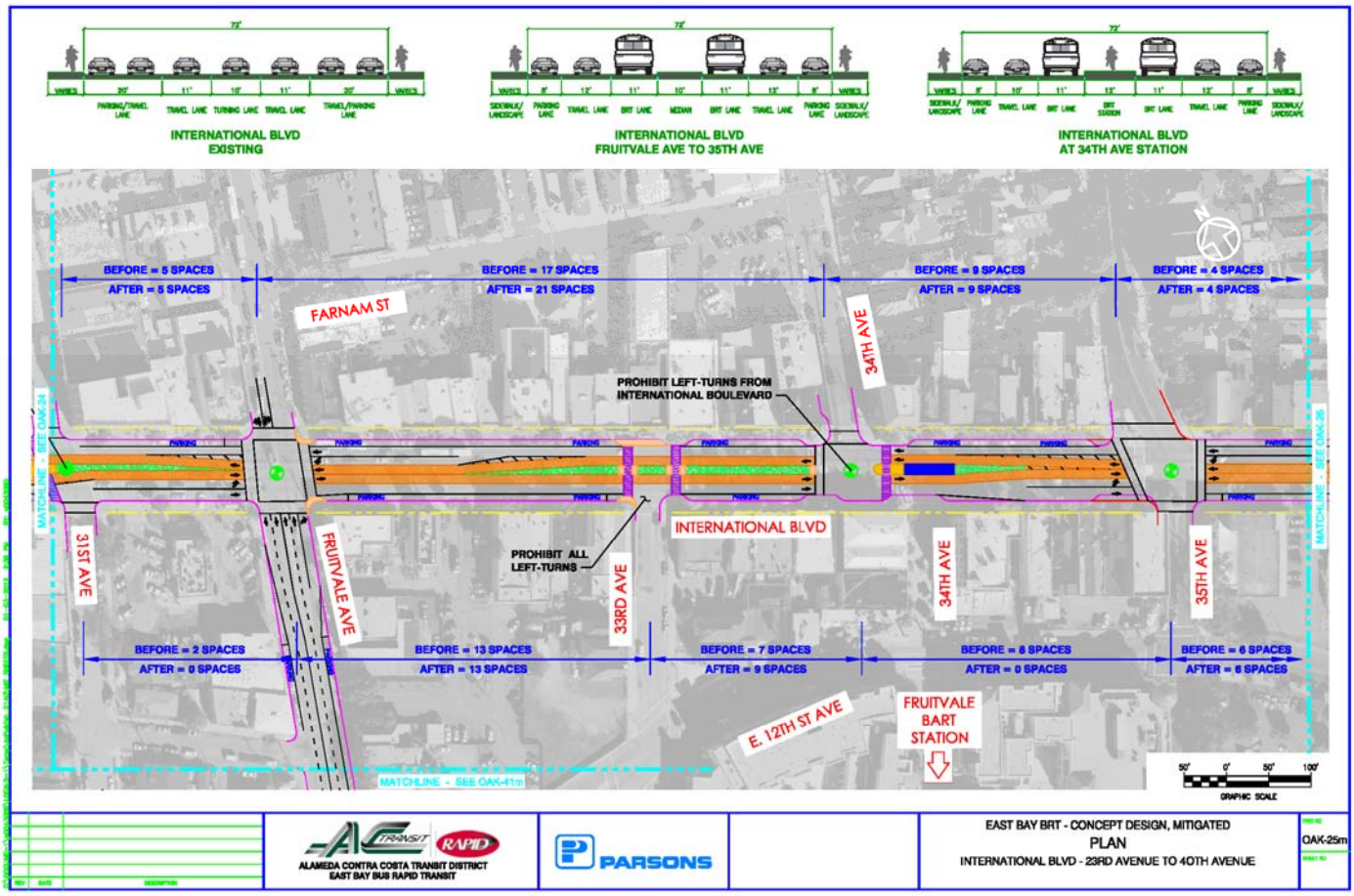
AC Transit East Bay Bus Rapid Transit (BRT) Project in Alameda County (International Boulevard Corridor portion)

The AC Transit East Bay Bus Rapid Transit (BRT) project includes the development of a BRT system from downtown Oakland to San Leandro along the Broadway, International and East 14th Street corridors. The BRT system would incorporate improvements intended to enhance bus reliability and reduce travel time. Within the vicinity of the CEIG traffic study area, the BRT would travel along International Boulevard (East 14th Street). Implementation of the BRT project would require the conversion of one travel lane in each direction to BRT-only operations on International Boulevard, east of 14th Avenue. The conversion of travel lanes to dedicated BRT lanes would reduce private automobile capacity at the CEIG traffic study intersections along International Boulevard. Figure D-1 below shows the proposed BRT design concept for one segment within the CEIG traffic study area between 31st Avenue and 35th Avenue.

Figure D-1: BRT Design Concept



Source: AC Transit

CEIG Project with BRT Traffic Impact Analysis

The impact analysis in the Draft Supplemental EIR for the CEIG does not assume BRT in either the 2020 or 2035 future baseline because, at the time the CEIG Notice of Preparation (NOP) was published in 2011 the BRT project was not approved or funded. Therefore, the traffic impact analysis proceeded without the BRT project included in the future baseline.

However, on April 25, 2012 AC Transit approved the BRT project and on July 17, 2012, the City of Oakland also approved the BRT project. Although not fully funded, the City has decided that some level of analysis should be conducted in this EIR to address potential CEIG impacts with BRT constructed and ensure the consistency of recommendations between the two projects. The analysis presented below with BRT on International Boulevard conservatively assumes the following:

- The same CEIG project vehicle trip generation, distribution, and assignment assumptions as stipulated in the Draft Supplemental EIR
- No reductions in vehicle trips for the higher ridership that the higher quality BRT service will likely generate[1]
- No assumption that traffic diverts from International Boulevard to avoid the increased congestion along the BRT corridor[2]

Tables D-1 and D-2 below present the peak hour LOS analysis for the five study intersections along International Boulevard, assuming the implementation of the CEIG (project) with operation of the BRT system.

In both 2020 and 2035 plus project conditions with the BRT system, the addition of project-related trips would result in significant traffic impacts at all five of the study area intersections along International Boulevard (the location of the proposed dedicated BRT travel lanes near the CEIG project area). By comparison, the Draft Supplemental EIR traffic impact analysis (Section 4.4) indicates that future development under the CEIG would trigger a significant impact at one intersection (42nd Ave./International Blvd.) under 2020 plus project conditions and at two intersections (42nd Ave. /International Blvd. and High St./International Blvd.) under 2035 plus project conditions.

Table D-1: Interim Year 2020 plus CEIG Project Traffic Impact Analysis <u>with</u> International BRT Project

Intersection	Traffic Control[1]	Peak Hour	LOS/Delay (sec/veh)[2]		Impact[3]
			Interim Year 2020 No CIEG Project	Interim Year 2020 plus CIEG Project	
2. International and 22nd Ave	Signal	AM PM	C / 29 F / 96	D / 38 F / 108	Yes
7. International and 29th Ave	Signal	AM PM	F / 106 E / 61	F / 109 E / 72	Yes

[1] This assumption differs from the AC Transit BRT Traffic Impact Analysis (which accounted for modal shifts)
[2] This assumption differs from the AC Transit BRT Traffic Impact Analysis (which accounted for traffic diversion).

Intersection	Traffic Control[1]	Peak Hour	LOS/Delay (sec/veh)[2]		Impact[3]
			Interim Year 2020 No CIEG Project	Interim Year 2020 plus CIEG Project	
15. International and Fruitvale Blvd	Signal	AM PM	F / 89 E / 59	F / 102 E / 66	Yes
22. International and 42nd Ave	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes
23. International and High St	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes

Notes:
[1] Traffic Control: SSSC = side-street stop control, AWSC = all-way stop control, Uncontrolled (no approach is controlled), Signal = traffic signal. The critical stop controlled movement with the worst delay is used to identify LOS (per HCM 2000 methodologies).
[2] LOS / Delay (seconds per vehicle) based on HCM 2000 methodologies. BOLD results indicate that the LOS exceeds the city's LOS D operating standard.
[3] Significant Impact: Yes, if a significant impact occurs using the City's CEQA thresholds.
Source: Arup, 2012.

Table D-2: Cumulative Year 2035 plus CEIG Project Traffic Impact Analysis <u>with</u> International BRT Project

Intersection	Traffic Control[1]	Peak Hour	LOS/Delay (sec/veh)[2]		Impact
			Interim Year 2035 No CIEG Project	Interim Year 2035 plus CIEG Project	
2. International and 22nd Ave	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes
7. International and 29th Ave	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes
15. International and Fruitvale Blvd	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes
22. International and 42nd Ave	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes
23. International and High St	Signal	AM PM	F / >120 F / >120	F / >120 F / >120	Yes

Notes:
[1] Traffic Control: SSSC = side-street stop control, AWSC = all-way stop control, Uncontrolled (no approach is controlled), Signal = traffic signal. The critical stop controlled movement with the worst delay is used to identify LOS (per HCM 2000 methodologies).
[2] LOS / Delay (seconds per vehicle) based on HCM 2000 methodologies. BOLD results indicate that the LOS exceeds the city's LOS D operating standard.
[3] Significant Impact: Yes, if a significant impact occurs using the City's CEQA thresholds.
Source: Arup, 2012.

The traffic mitigations identified in the CEIG EIR along International Boulevard relate to widening the roadway from two lanes (the existing configuration) in each direction to three lanes. However, these mitigation measures are considered infeasible due to the secondary impacts associated with either parking removal or right-of-way acquisition and because they are inconsistent with the City's Transit First policy as it would increase capacity for vehicles. The City's Transit First policy provides strong direction for supporting public transit (including creating dedicated bus lanes, identifying transit preferential streets, and making improvements to public transit infrastructure) and improving pedestrian facilities. See Table D-4: Comparison of Mitigations for Overlapping Intersections below for a comparison of mitigation measures proposed for the CEIG EIR and the AC Transit BRT Final Environmental Impact Statement/Report (FEIS/R)**.**

AC Transit BRT Traffic Impact Analysis

The BRT FEIS/R identified potential adverse traffic effects related to implementation of the proposed BRT Project and feasible mitigations. The FEIS/R used a sophisticated analysis process to capture and assess modal shifts, short-distance traffic diversion, long-distance traffic diversion, and changes in operating conditions at intersections and along major roadways. A travel demand model, using population and employment estimates, and a simplified representation of the highway and transit systems, was used to derive estimates of roadway traffic and transit volumes during various times of day at various points in time throughout project build out (2035).

The BRT FEIS/R assumes that the number of travel lanes is reduced from two to one to accommodate the BRT. The mitigation measures then reinstate those through lanes by removing on-street parking and removing or reconfiguring the bus lane in spot locations as required by local impacts. For instance, the BRT FEIS/R project does not require any reduction in travel lanes along International Boulevard between High Street and 42nd Avenue in order to preserve sufficient roadway capacity.

Comparison of Mitigations for Overlapping Intersections

Table D-4 presents the mitigation measures for those study intersections that overlap between the BRT EIS/R and the CEIG EIR. Mitigation measures for impacts to International Blvd. were considered feasible in the BRT FEIS/R and infeasible in the CEIG EIR. The mitigation to remove on-street parking and eliminate one BRT lane is considered feasible in the BRT FEIR/S because creating dedicated bus lanes is specifically included in the City's Transit First policy, and no additional auto capacity is added compared to the existing street configuration. The mitigation to eliminate on-street parking to accommodate an additional vehicle travel lane is considered infeasible in the CIEG EIR because adding single-occupancy vehicle capacity conflicts with the City's Transit First policy. While the CEIG EIR-identified potential mitigations conflict with the Transit First policy (and are therefore infeasible), the development program proposed in the CEIG would add a variety of residential, commercial, employment and recreational uses within close proximity to regional and local transit systems thereby supporting City policy. Additionally, recommended streetscape improvements would improve the pedestrian and bicycling environment.

The BRT FEIS/R mitigations are assumed to be constructed and used to mitigate the potential impacts identified in Table D-2, upon completion of the BRT project. If the BRT project is abandoned, then the impacts would remain significant and avoidable as discussed in Section 4.4 of the CEIG EIR.

Table D-4: Comparison of Mitigations for Overlapping Intersections

Intersection	CEIG EIR				BRT FEIS		
	LOS w/o BRT (2035)	LOS w/ BRT (2035)	Proposed Mitigation	Result	LOS w/ BRT (2035)	Proposed Mitigation	Result
2. Intl Blvd/22nd Ave	D	F	No mitigations developed	N/A	C	None (no significant impact)	N/A
7. Intl Blvd/29th Ave	D	F	No mitigations developed	N/A	F	Signal coordination and timing between 15th Ave and 29th Ave	LTS
15. Intl Blvd/Fruitvale Ave	D	F	No mitigations developed	N/A	D	Construct EB right turn lane on Fruitvale (associated with secondary impacts from Fruitvale/San Leandro realignment)	LTS
22. Intl Blvd/42nd Ave	F	F	Identifies accommodating a third through lane on International as infeasible due to ROW constraints	SU	E	Maintain 2 through lanes on International through removal of on-street parking and elimination of one BRT lane.	LTS
23.Intl Blvd/High St	F	F	Identifies accommodating a third through lane on International as infeasible due to ROW constraints	SU	F	Maintain 2 through lanes on International through removal of on-street parking and elimination of one BRT lane.	LTS
16. Fruitvale Ave/E. 12th St	E	E	Identifies capacity increases as infeasible due to ROW constraints	SU	F	Restriping to provide second dedicated left-turn lane on EB Fruitvale, and second through lane on NB 12th St. Signal coordination and timing.	LTS
25. High St/San Leandro St	F	F	Identifies capacity increases as infeasible due to ROW constraints	SU	F*	None (no significant impact)	N/A
17. Fruitvale Ave/San Leandro St	F	F	Identifies capacity increases as infeasible due to ROW constraints	SU	F	Reconstructed to provide more capacity and make San Leandro a more attractive alternative to International	LTS

*LOS F in “No Build”; project does not cause significant deterioration from No Build condition.