FEHR PEERS

DRAFT MEMORANDUM

Date: December 16, 2020

To: Elizabeth Kanner, ESA

From: Rob Rees, Fehr & Peers

Subject: Emarcadero at Oak Street – Implimentation Timing

OK18-0295.00

This memorandum summarizes the improvement requirements for the Embarcadero intersection with Oak Street (Brooklyn Basin Condition of Approval #19) and recommends changes to the implementation timing which currently requires the constructed improvement to be in place at the Certificate of Occupancy for the 1,000 residential unit.

INTERSECTION IMPROVEMENT

Condition of Approval #19 includes installing a traffic signal system at the Embarcadero intersection with Oak Street. The traffic signal system will allow for future fiber optic cable connection when the corridor is upgraded to fiber. GPS antenna will be installed as a short-term alternative for signal interconnect. The traffic signal system will include railroad preemption and provide appropriate pedestrian and bicycle features. The traffic signal designer will be responsible for ensuring all the traffic signal features and timings required by the City and the CPUC are implemented.

STATUS OF CONDITION OF APPROVAL #19

The developer for the Brooklyn Basin Project retained BKF Engineers to prepare the plans, specifications, and estimates (PS&E) for the traffic signal system at the Embarcadero intersection with Oak Street. BKF Engineers coordinated the proposed improvements with California Public Utility Commission (CPUC), the affected railroads, and the City of Oakland to obtain the necessary permits / approvals including the GO 88-B Request (Authorization to Alter Highway Rail Crossings).

The design and approval work was completed by BKF Engineers but prior to the final PS&E being approved and permits issued the conditions changed that will require BKF Engineers to undertake a redesign and start the approval process over. The changed conditions are summarized below.

- The City of Oakland approved a pop-up restaurant adjacent to the Embarcadero intersection with Oak Street including a new crosswalk and property access. The PS&E package prepared by BKF Engineers does not consider this changed condition. As a result, they will be required to start the approval process over with the CPUC. Of specific concern is the new crosswalk at the intersection which could impact railroad operations. The CPUC and affected railroads are likely to request that the crosswalk be removed without additional analysis and negotiation. This changed condition could add two or more years to the design approval process.
- Alameda County Transportation Commission (Alameda CTC) recently completed the Countywide Rail Safety Study which analyzed all at-grade rail crossings in the county and identified the crossing adjacent to the Embarcadero intersection with Oak Street as a Tier 1 priority for safety improvements based on current levels of activity. Prior to reengaging with CPUC and affected railroads to address the changed condition BKF Engineers will need to coordinate the design concept with Alameda CTC and their consultants to ensure that it meets the design requirements established by Alameda CTC.

RECOMMENDED IMPLEMENTATION TIMING CHANGE

Given the changed conditions summarized above Fehr & Peers recommends that the implementation timing for Condition of Approval #19 be delayed so that BKF Engineers can undertake the additional work necessary to obtain design approvals from the CPUC, affected railroads, and Alameda CTC. Currently, the timing requires the improvement to be implemented at the Certificate of Occupancy of the 1,000 residential unit, and associated commercial development, which as shown in **Table 1** equates to 383 AM peak hour trips and 639 PM peak hour trips based on the *Oak to Ninth Avenue Project Draft Environmental Impact Report State Clearinghouse No. 2004062013* dated August 2005 (2005 DEIR).

There have been several changes since the 2005 DEIR that affect the project's calculated trip generation. These include:

- The City of Oakland developed Transportation Impact Report Guidelines (TIRG) which altered the methodology used to calculate a project's vehicle trip generation to represent development vehicle trips more accurately in Oakland. The methods used in the 2005 DEIR relied on suburban vehicle trip generation rates which did not account for transit, bike, and pedestrian trips that urban areas generate. The TIRG methodology adjusts the suburban trip generation rates to reflect urban trip making characteristics.
- The 2005 DEIR used trip generation rates from the Institute of Transportation Engineers publication titled, Trip Generation, 7th Edition. That publication has been updated several times with the most recent version being *Trip Generation 10th Edition*. The City's TIRG requires that a project's trip generation be calculated using the most current version of the trip generation manual.

- The 2005 DEIR assumed that the residential uses would be multifamily without special designations. The Project being constructed includes both affordable and senior housing units which generate less vehicle trips than multifamily housing.

Table 1 summarizes vehicle trip generation for the Phase 1 Project using the TIRG methodologies and illustrates that the Phase 1 Project is expected to generate fewer daily as well as AM, and PM peak hour trips compared to the 1,000 residential units with associated commercial under the methodologies in the 2005 DEIR. Specifically, using the new methodologies the Phase 1 Project would generate 864 fewer daily trips, 30 fewer AM peak hour trips and 65 fewer PM peak hour trips.

Fehr & Peers recommends that the Condition of Approval #19 be modified so that it be required after full occupancy of Phase 1 Project or prior to occupancy certificates for the Phase 2 Project.

If you have any questions, please call Rob Rees at (510) 834-3200.

Table 1: Project Trip Generation Calculations

Land Use	Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
2005 DEIR Project								
Multi-Family Housing (2005 DEIR)	1,000 DU	5,449	83	236	319	235	151	386
General Commercial	60.6 ksf	3,073	52	32	84	138	149	287
Internalization (5%)		-426	-7	-13	-20	-19	-15	-34
Sub Total 2005 DEIR Project		*8,096*	*128*	*255*	*383*	*354*	*285*	*639*
Phase 1 Project								
Multi-Family Housing	853 units	4,648	71	202	273	201	129	329
Senior Housing (Affordable)	110 units	314	8	10	19	15	10	24
Multi-Family Housing (Affordable)	355 units	1,644	25	71	96	71	45	117
General Commercial	38.8 ksf	1,970	34	21	54	88	96	184
Supermarket	14.8 ksf	1,645	34	23	57	80	77	157
Marina	0	0	0	0	0	0	0	0
Phase 1 Buildout Subtotal		*10,223*	*172*	*327*	*499*	*455*	*356*	*811*
Trip Reduction Adjustment per TIRG (23.1%)		-2,361	-40	-75	-115	-105	-82	-187
Phase 1 Buildout (No TDM)		*7,861*	*132*	*251*	*383*	*350*	*274*	*624*
TDM Reductions (8%)		-629	-11	-20	-31	-28	-22	-50
Phase 1 Buildout Net New Trips (With TDM)		*7,232*	*122*	*231*	*353*	*322*	*252*	*574*
Phase 1 Project versus 2005 DEIR Project		***-864***	***-6***	***-24***	***-30***	***-32***	***-33***	***-65***

Source: Fehr & Peers, 2020