

APPENDIX E
TRAFFIC INFORMATION



MEMORANDUM

Date: October 28, 2019
To: Judith Malamut, Baseline Environmental Consulting
From: Sam Tabibnia
Subject: GE Site Remediation and Redevelopment Project – Transportation and Parking Management Plan

OK18-0274

The proposed GE Site Redevelopment (project) is required to prepare a Transportation and Parking Demand Management (TDM) Plan per the City of Oakland Standard Condition of Approval (SCA) 79 (Department of Planning and Building, Bureau of Planning, November 5, 2018). According to the SCA, the TDM Plan goal is to achieve a 10 percent vehicle trip reduction (VTR) because the project would generate between 50 and 100 net new peak hour trips.

This memorandum describes the project and its setting, lists the mandatory TDM strategies that the project shall implement to achieve the 10 percent VTR, and describes the compliance for the TDM Plan.

PROJECT DESCRIPTION

The proposed project is located on the west side of International Boulevard between 54th and 57th Avenues in Oakland. The 24-acre project site, is occupied by vacant buildings, which used to be a General Electric manufacturing facility, and will be demolished as part of the proposed project. The proposed project would construct a single building providing 525,000 square feet of warehouse space and about 10,000 square feet of accessory office.

Automobile access would be provided through four driveways: three driveways on International Boulevard and one driveway at the end of East 12th Street, just south of 54th Avenue. Since trucks are prohibited on East 12th Street, 54th Avenue, and other adjacent streets, the driveway on East



12th Street would only be used by passenger vehicles. All trucks would use the driveways on International Boulevard to drive to and from the site. A project variant under consideration would add a truck-only driveway on the northwest corner of the project just east of the railroad tracks on 54th Avenue to facilitate truck access between the site and San Leandro Street.

The project would provide 219 parking spaces and accommodate 85 loading docks.

PROJECT LOCATION

Located in East Oakland, the project is in a medium to high density area with streets generally in a grid and sidewalks on the majority of the streets. It is located near residential areas, a few existing neighborhood-serving retail sites, and other industrial uses.

The project is about 1.3 miles from both the Fruitvale and Coliseum BART stations, and is currently served by AC Transit bus service along International Boulevard (Line 1, with 10-minute peak headways). AC Transit is currently constructing the East Bay Bus Rapid Transit (BRT) Project along International Boulevard, where buses would operate in exclusive bus lanes between downtown Oakland and San Leandro. The nearest BRT stations will be located on International Boulevard just north of 54th Avenue, about 500 feet north of the project, and on International Boulevard just north of 58th Avenue, about 750 feet south of the project.

Minimal bicycle facilities currently serve the project vicinity. Planned bicycle facilities include the East Bay Greenway project which would provide a continuous bikeway between the Lake Merritt BART Station in Oakland and Fremont and would between the project site and San Leandro Street, Class 2 bicycle lanes along International Boulevard and East 12th Street, and neighborhood bike routes along 54th and 55th Avenues.

Table 1 summarizes the commute mode split for workers in the project census tracts. Based on the Census data, about 78 percent of the workers in the project census tract drive alone and about 13 percent carpool to and from work. However, the proposed project is estimated to have a lower driving mode split than workers in the project census tract because the project census tract (Tract 4073) is one of the larger census tracts in the City of Oakland. It is about 620 acres and extends between International Boulevard which is served by frequent bus service and is located near somewhat dense residential areas and retail uses, to the Bay which has minimal transit service and minimal land use diversity. In addition, BRT service along International Boulevard, currently under construction, would farther encourage project employees to use transit.



TABLE 1
JOURNEY TO WORK FOR WORKERS IN PROJECT CENSUS TRACT

Transportation Mode	Percent of Workers in Project Census Tract
Drove Alone	78%
Carpooled	13%
Public transportation	3%
Bicycle	3%
Walked	2%
Other	1%
Total	100%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, Census Transportation Planning Products Program, Census Tracts 4073.

Table 2 summarizes the automobile trip generation for the project. The automobile trips generated by the project is estimated to be 23 percent less than the trips generated by a typical suburban development. The trip generation accounts for the reduction in trips due to the project location and access to frequent transit service. The project is estimated to generate about 520 daily, 66 AM peak hour, and 71 PM peak hour passenger car trips, which are targeted by this TDM program. Similar to the automobile trip generation, the project is also estimated to generate a vehicle-miles traveled (VMT) per worker that is less than the regional average, as documented in the project EIR.



**TABLE 2
 AUTOMOBILE TRIP GENERATION SUMMARY**

Land Use	Units ¹	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Warehouse	525 KSF	150 ²	910	69	20	89	27	73	100
<i>Truck Trips³</i>			340	12	4	16	6	15	21
Passenger Cars, unadjusted			570	57	16	73	21	58	79
<i>Non-Auto Reduction (23%)⁴</i>			-130	-13	-4	-17	-5	-13	-18
Passenger Cars, adjusted			440	44	12	56	16	45	61
Office	10 KSF	710 ⁵	100	10	2	12	2	10	12
<i>Non-Auto Reduction (23%)⁴</i>			-20	-2	0	-2	0	-2	-2
Passenger Cars, adjusted			80	8	2	10	2	8	10
Net New Project Trips			860	64	18	82	24	68	92
<i>Truck Trips</i>			340	12	4	16	6	15	21
<i>Passenger Car Trips</i>			520	52	14	66	18	53	71

1. KSF = 1,000 square feet.
 2. ITE Trip Generation (10th Edition) land use category 150 (Warehousing):
 Daily: $T = 1.74 * X$, AM Peak Hour: $T = 0.17 * X$ (77% in, 23% out), PM Peak Hour: $T = 0.19 * X$ (27% in, 73% out)
 3. Based on truck trip generation data in ITE Trip Generation Handbook (3rd Edition), Appendix I.
 4. Reduction of 23.1% assumed, based on City of Oakland Transportation Impact Review Guidelines using Census data for urban environments over one mile of a BART Station.
 5. ITE Trip Generation (10th Edition) land use category 710 (General Office Building):
 Daily: $T = 9.74 * X$, AM Peak Hour: $T = 1.16 * X$ (86% in, 14% out), PM Peak Hour: $T = 1.15 * X$ (16% in, 84% out)
- Source: Fehr & Peers, 2019.

MANDATORY TDM STRATEGIES

This section describes the mandatory strategies that shall be implemented at the project. These strategies shall be directly implemented by the project. **Table 3** lists these mandatory TDM strategies, and the effectiveness of each strategy primarily based on research compiled in Quantifying Greenhouse Gas Mitigation Measures (California Air Pollution Control Officers Association (CAPCOA), August 2010). This report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies.

Operational TDM strategies are most effective for workers that commute to and from a site on a regular basis, especially during weekday peak commute periods when transit service peaks and is most conveniently available. Thus, the mandatory strategies in Table 3 are generally targeted at project employees. Other site visitors are not directly targeted because they would visit the project too infrequently to be aware of the TDM benefits or to make them cost effective. However, some of the mandatory strategies, especially the ones that would improve the infrastructure, would also benefit the site visitors.



TABLE 3: MANDATORY TDM PROGRAM COMPONENTS

TDM Strategy	Description	Estimated Trip Reduction ¹
A. Infrastructure Improvements	Various Improvements	NA ²
B. Pre-tax Commuter Benefit	allow employees to deduct transit costs using pre-tax dollars	9-12% ³
C. Transit Fare Subsidy	Provide transit subsidy to project employees	
D. Carpool and Ride-Matching Assistance	Offer personalized ride-matching assistance	0-1%
E. Preferential Parking for Carpoolers	Provide preferential parking for eligible carpoolers	
F. Car-Share Spaces	Offer to dedicate at least two on-site carshare parking spaces	0-1%
G. <i>Bicycle Parking and Amenities</i>	monitor usage of the bicycle parking facilities and increase supply if necessary	0-1%
H. Guaranteed Ride Home	Promotion of and enrollment of employees in Alameda County's Guaranteed Ride Home program	NA ²
I. TDM Coordinator	Coordinator responsible for implementing and managing the TDM Plan	NA ²
J. TDM Marketing and Employee Education	Active marketing of carpooling, BART, AC Transit, bikesharing, and other non-auto modes	1-2%
Total Estimated Vehicle Trip Reduction		10-17%

1. The focus of the CAPCOA document is reductions to VMT but the research used to generate the reductions also indicates vehicle trip reductions are applicable as well. For the purposes of this analysis the VTR is assumed to equal the VMT reduction. See the cited CAPCOA research for more information and related information on page 8 of the BAAQMD *Transportation Demand Management Tool User's Guide* (June 2012)
2. The effectiveness of this strategy cannot be quantified at this time. This does not necessarily imply that the strategy is ineffective. It only demonstrates that at the time of the CAPCOA report development, existing literature did not provide a robust methodology for calculating its effectiveness. In addition, many strategies are complementary to each other and isolating their specific effectiveness may not be feasible.
3. This strategy assumes that all employees would be eligible for a transit subsidy of \$3.00 per day.

Sources: Fehr & Peers, 2019.

The TDM strategies include both one-time physical infrastructure improvements and on-going operational strategies. Physical improvements will be implemented as part of the project and thus are anticipated to have a one-time capital cost. Some level of ongoing maintenance cost may also be required for certain measures. Operational strategies provide on-going incentives and support for the use of non-auto transportation modes. These TDM measures have monthly or annual costs and will require on-going management.



A more detailed description of the TDM measures that comprise the mandatory TDM program is provided below:

- A. *Infrastructure Improvements* – Implement the following infrastructure improvements in the project vicinity, which were identified in the project site plan evaluation or required by the City's TIRG, would improve the bicycling, walking, and transit systems in the area and further encourage the use of these modes:
1. Explore the feasibility and if determined feasible by City of Oakland staff, consider implementing or contributing to the Class 3B Bicycle Boulevard Neighborhood Bike Route proposed along 54th Avenue between San Leandro Street and International Boulevard.
 2. Explore the feasibility and if determined feasible by City of Oakland staff, consider implementing or contributing to the segment of the East Bay Greenway Class I path proposed just west of the project adjacent to San Leandro Street.
 3. If the existing railroad tracks adjacent to the west of the project are abandoned, consider providing direct pedestrian/bicycle connection between the project site and the proposed East Bay Greenway.
 4. Upgrade the pedestrian amenities on International Boulevard adjacent to the project, including the installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.
- B. *Pre-tax Commuter Benefits* – Enroll in WageWorks or other services to help with pre-tax commuter savings. This strategy allows employees to deduct monthly transit passes or other amount using pre-tax dollars. This can help to lower payroll taxes and allows employees to save on transit.
- C. *Transit Fare Subsidy* – Provide free or reduced cost transit for employees. Options include:
1. Offer a monthly commuter check (or alternatively Clipper Card, which is accepted by BART, AC Transit, and other major transit providers in the Bay Area) to employees to use public transit. Note that as of 2019, IRS allows up to \$265 per employee per month.
 2. AC Transit's EasyPass program, which enables employers to purchase annual bus passes for their employees in bulk at a deep discount. The passes allow unlimited rides on all AC Transit buses for all employees. For more information, see www.actransit.org/rider-info/easypass.

Based on the CAPCOA report, a transit fare subsidy of about \$3.00 per employee per day (value to rider and not necessarily the cost) available to all employees would translate to an approximately nine to 12 percent reduction in driving trips generated by the project employees.



- D. *Carpool and Ride-Matching Assistance Program* – Offer personalized ride-matching assistance to pair employees interested in forming commute carpools. As an enhancement, the project may consider using specific services such as ZimRide, ComoVee, or 511.org RideShare.
- E. *Preferential Parking for Carpoolers* – Offer designated preferential carpool parking for eligible commuters. To be eligible for carpool parking, the carpool shall consist of two or more people. project shall monitor and provide adequate carpool spaces to meet and exceed potential demand.
- F. *Car-Share Spaces* – Offer to designate at least two on-site parking spaces for car-sharing (such as Getaround, Zip Car, etc.) for free. Monitor the usage of the car sharing spaces and adjust if necessary. As an additional strategy, consider providing free/subsidized car-share membership to employees.
- G. *Bicycle Parking and Amenities* – Monitor the usage of short-term and long-term bicycle parking, and provide additional bicycle parking if necessary. Project will provide short-term and long-term bicycle parking exceeding City requirements, as well as shower and locker facilities
- H. *Guaranteed Ride Home* – Encourage project employees to register for the Guaranteed Ride Home (GRH) program. Employees may be hesitant to commute by any other means, besides driving alone, since they lose the flexibility of leaving work in case of an emergency. GRH programs encourage alternative modes of transportation by offering free rides home in the case of an illness or crisis, if the employee is required to work unscheduled overtime, if a carpool or vanpool is unexpectedly unavailable, or if a bicycle problem arises. The Alameda County Transportation Commission offers a GRH service for all registered permanent employees who are employed within Alameda County, live within 100 miles of their worksite, and do not drive alone to work. The GRH program is offered at no cost to the employer, and employers are not required to register in order for their employees to enroll and use the program.
- I. *TDM Coordinator* – Designate a staff person as TDM coordinator to coordinate, monitor and publicize TDM activities.
- J. *TDM Marketing and Employee Education*- Provide employees information about various transportation options in the project area and the TDM strategies provided by the project. This information shall include:
 - 1. *Transit Routes* – Promote the use of transit by providing user-focused maps. These maps provide wayfinding to nearby transit stops and transit-accessible destinations, and are particularly useful for those without access to portable mapping applications.
 - 2. *Transit Fare Discounts* – Provide information about local discounted fare options offered by BART and AC Transit, including discounts for youth, elderly, persons with disabilities, and Medicare cardholders.



3. *Car Sharing* – Promote accessible car sharing programs, such as Zipcar and Getaround, by informing employees of on-site and nearby car sharing locations and applicable membership information.
4. *Ridesharing* – Provide employees with phone numbers and contact information for ride sharing options including Uber, Lyft, and Oakland taxi cab services.
5. *Carpooling* – Provide employees with phone numbers and contact information for carpool matching services such as the Metropolitan Transportation Commission's 511 RideMatching.
6. *Walking and Biking Events* – Provide information about local biking and walking events, such as Oaklavia, as events are planned.
7. *Bike-share/electronic scooter share* – Educate employees about docked and dockless bike-share and electronic scooter share. The nearest docked BayWheers Bike Station is on Foothill Boulevard at 42nd Avenue.

TDM COMPLIANCE

Since the proposed project would generate fewer than 100 net peak hour automobile trips, the project applicant is not required to submit annual compliance reports.

In addition, the TDM Plan in this memorandum is compliant with the Bay Area Commuter Benefits Program. As of September 30, 2014, Bay Area employers with 50 or more full-time employees within the Bay Area Air Quality Management District (Air District) geographic boundaries are required to register and offer commuter benefits to their employees in order to comply with Air District Regulation 14, Rule 1, also known as the Bay Area Commuter Benefits Program. Employers must select one of four Commuter Benefit options to offer their employees: (1) a pre-tax benefit, (2) an employer-provided subsidy, (3) employer-provided transit, or (4) an alternative commute benefit. (Information about Commute Benefits Program is at 511.org/employers/commuter/overview.)

Please contact Sam (stabibnia@fehrnadpeers.com or 510.835.1943) with questions or comments.