



## DRAFT MEMORANDUM

Date: January 24, 2020  
To: Sean Murphy, Alameda Marina  
From: Sam Tabibnia, Fehr & Peers  
Subject: **Alameda Marina Project – Transportation Demand Management Plan**

OK16-0144.01

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The Alameda Marina Project is required to prepare a Transportation Demand Management (TDM) Plan per Mitigation Measure TRA-1 in the project EIR, as well as the City of Alameda General Plan requirements. The goal of the TDM Plan is to reduce the vehicle miles traveled (VMT) and vehicle trips, particularly single-occupant vehicle trips, by project residents, workers, and visitors. This memorandum provides a background on the TDM Plan, describes the project, lists the TDM strategies that the project shall implement, quantifies their effectiveness, and describes the monitoring and evaluation process for the TDM Plan.

### 1. BACKGROUND

The Alameda Marina Master Plan EIR identified Impact TRA-1 as a significant impact on VMT, which can be mitigated to a less-than-significant level by implementing a TDM Plan. According to the EIR, the TDM Plan would need to reduce the project generated VMT by about three percent in order to mitigate the impact.

The EIR also identified a significant impact at two intersections. Although, the TDM Plan would reduce the project trip generation and the magnitude of the impact at the two intersections, the TDM Plan would not reduce the project contribution at these intersections sufficiently to reduce this impact to a less-than-significant level.

In addition, the City of Alameda General Plan Policy 4.1.6a requires new residential developments to implement TDM Plans that reduce peak hour automobile trips by 10 percent. This TDM Plan satisfies both the project EIR and the City's General Plan requirements. The TDM Plan will be reviewed and approved by the City's Planning Board.



## 2. PROJECT DESCRIPTION

The project is in the Northern Waterfront area of the City of Alameda. The project site is bounded on the north by the Oakland-Alameda Estuary, to the east by a northern extension of Willow Street, to the south by Clement Avenue, and to the west by Alameda Marina Drive. Access to the site would be primarily provided through Clement Avenue.

The project would consist of the following:

- 760 residential units in the following configuration:
  - Wrap A, located on the west side of the project between Alameda Marina Drive and Schiller Street would consist of 360 multi-family units, and provide 416 parking spaces. Eight work/live units will also be provided, but they are not counted as residential units.
  - Wrap B, located in the center of the project between Lafayette Street and just west of Chestnut Street would consist of 218 multi-family units and 362 parking spaces. Eight work/live units will also be provided, but they are not counted as residential units.
  - 182 townhouses located on the east side of the project between Wrap B and Willow Street. Each townhouse would have its own private garage accommodating one or two vehicles.
- About 160,000 square feet of commercial space, mostly located in the center of the project area between the Wrap A and Wrap B buildings. It is expected that most of the commercial space would be used by maritime uses, consistent with the current uses at the site. The commercial and maritime uses would provide about 348 parking spaces, which would be used by commercial and maritime tenants and visitors, marina tenants and visitors, and the general public. A portion of these parking spaces will also be dedicated for public access consistent with BCDC policies and regulations. Residents of the project will not be allowed to use the commercial and maritime parking spaces; all residential parking is confined to the residential buildings consistent with the Master Plan.

## 3. TDM STRATEGIES

The project EIR included a preliminary list of TDM strategies that the project would implement. This section expands on these preliminary strategies and describes all strategies in more detail and quantifies their effectiveness to the extent possible.



The strategies in this TDM Plan shall be directly implemented by the project applicant, project management, or indirectly through the Alameda Transportation Management Agency (TMA). **Table 1** lists the TDM strategies and their effectiveness based on research primarily compiled in Quantifying Greenhouse Gas Mitigation Measures (California Air Pollution Control Officers Association [CAPCOA], August 2010) and other available sources. The CAPCOA report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies. Each strategy is described in detail in the following pages.

The strategies in Table 1 are generally targeted at project residents and workers. While some of the strategies would also affect the travel behavior of residential visitors and commercial visitors and customers, these groups are not directly targeted with TDM programs. Visitors and customers would likely not be aware of TDM programs or visit frequently enough to make them cost effective.

The TDM strategies include both one-time physical improvements and on-going operational strategies. Physical improvements will be constructed as part of the project and therefore have a one-time capital cost. Some level of ongoing maintenance cost may also be required for certain improvements. 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.

The project residents and employers will be members of the Alameda Transportation Management Agency (TMA), which will pool resources with other developments in Alameda to provide transportation information services to all the residents and workers through a TMA website and other sources, implement many of the operational strategies outlined below, and conduct annual commute surveys of residents and employees.

All residents and employers at Alameda Marina will pay annual fees to fund the TMA activities and support supplemental transit services and trip reduction services for the residents and employees. Resident annual assessments in the Northern Waterfront area currently fund supplemental commute hour service on the AC Transit Line 19, which provides direct service to Fruitvale and 12th Street BART stations. Future assessments received from project residents and employers will allow for additional transit services and future water shuttle services designed to serve the waterfront developments along the Estuary in Alameda and Oakland and connect the project sites to the regional ferry services provided from Jack London Square in Oakland and the Main Street Terminal in Alameda.



**TABLE 1  
TDM PLAN COMPONENTS**

<b>TDM Strategy</b>	<b>Description</b>	<b>Estimated VMT and Vehicle Trip Reduction<sup>1</sup></b>
A. Infrastructure Improvements	Various improvements (detailed description follows Table 1)	N/A <sup>2</sup>
B. Transit Passes	provide one AC Transit EasyPass per residential unit and per employee	3-5%
C. Limited Parking Supply	Project provides about 1.3 off-street parking spaces per unit, less than auto ownership in the project area.	1 – 4%
D. Unbundled Parking	Residents of Wraps A and B are required to pay for a parking space separately from their monthly rent	
E. Residential Parking Management	Restrict on-site parking to a maximum of two parking space per unit, thereby discouraging multiple car ownership	
F. Maritime and Commercial Parking Management	Prohibit the use of the maritime and commercial parking facilities by project residents	
G. Carshare Parking Spaces	Offer to dedicate on-site carshare parking spaces	<1%
H. Water Taxi Dock	Offer to dedicate for free a dock for a public water taxi	N/A <sup>2</sup>
I. Carpool and Ride-Matching Assistance	Assist project residents and employees in forming carpools	<1%
J. Bicycle Parking Supply Monitoring	Monitor usage of the bicycle parking facilities and increase supply if necessary	<1%
K. Guaranteed Ride Home	residents and tenants to register for the free program	N/A <sup>2</sup>
L. TDM Coordinator	Coordinator responsible for implementing and managing the TDM Plan	N/A <sup>2</sup>
M. Marketing and Education	Active marketing of all non-automobile travel choices	
<b>Estimated Vehicle Trip Reduction</b>		<b>6% – 11%</b>



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 vehicle trip reduction 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 existing literature does 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.

Source: Fehr & Peers, 2020.

A more detailed description of the TDM measures is provided below. All on-going operational strategies, such as providing transit passes and unbundling residential parking, shall be in place before the completion of the first phase of the project, unless noted:

- A. *Infrastructure Improvements* – The following infrastructure improvements implemented by the project during the different phases of construction would improve the bicycling and walking in the project vicinity and would further encourage the use of these modes:
  - Completion of the San Francisco Bay Trail along the north boundary of the site, which would provide a pedestrian and bicycle connection to the points east and west of the project site
  - Pedestrian and bicycle connections through the site connecting the Bay Trail to Clement Avenue and the neighborhoods to the south
  - Secure bicycle rooms within the Wrap buildings to provide for long-term bicycle parking
  - Improved landscaping and street furniture, including bike-racks along the project frontage
- B. *Transit Passes* – All households and employees will be provided with one AC Transit Easy Pass, which will provide access to all of AC Transit's services including the San Francisco express commuter buses. The cost of the passes will be included in the mandatory assessments on each unit, which dis-incentives future residents who prefer to drive alone and do not want to use transit.
- C. *Limited Parking Supply* (Wrap A and Wrap B Only) – Wrap A and Wrap B buildings combined propose to provide parking at about 1.3 spaces per residential unit. This is less than the current average automobile ownership of 1.7 vehicles per household in the City of Alameda.<sup>1</sup>
- D. *Unbundle Parking* (Wrap A and Wrap B Only) – Require the residents of the non-townhome units who wish to have cars, to lease parking spaces on a monthly basis in a parking structure. This would result in residents paying one price for the residential unit and a

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<sup>1</sup> U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates, Table B08203



separate price for parking, should they opt for a space. The cost of the parking will be “unbundled” from the cost of the residential unit, which provides a financial incentive for residents to reduce car ownership and take advantage of the AC Transit passes, which are “bundled” into the cost of their residential units. (The 182 townhomes will have private parking and are exempt from this strategy.)

- E. *Residential Parking Management* (Wrap A and Wrap B Only) – Restrict parking to one parking space per unit for studios and two spaces per unit for other units, thereby discouraging multiple car ownership. Exceptions will only be made for residents with management approved Reasonable Accommodation Requests. A Reasonable Accommodation Request shall need to demonstrate a hardship wherein a household requires more than one vehicle per unit. Examples could include households with multiple disabled residents requiring vehicles or households with multiple residents with places of work inaccessible via transit.
- F. *Maritime and Commercial Parking Management* – develop a parking management plan for the 348 non-residential parking spaces in the project area to prohibit the use of these parking spaces by project residents and ensure the availability of parking for the commercial, maritime, marina, and public uses. All on-site non-residential surface parking spaces shall be shared spaces where they will not be assigned to specific tenants or people and will be available to all employees, marina tenants, visitors or general public. Potential parking management measures may include requiring parking permits for maritime and commercial employees, designating parking spaces for visitors and customers with maximum time limits, and/or requiring parking permit for overnight parking in order to prohibit the use of the public parking spaces by the project residents.
- G. *Carshare Parking Spaces* – Offer to dedicate for free at least three on-site parking spaces to carsharing operators, such as Zipcar. Monitor the usage of the carsharing spaces and adjust if necessary. Also, consider providing discounted parking for residents who sign-up their vehicles for peer-to-peer carshare services, such as Getaround.
- H. *Water Taxi Dock* – Offer to dedicate for free a dock for use by a public water shuttle/taxi that can provide service between the Northern Waterfront area and Alameda Ferry Terminal, Jack London Square, or other nearby destinations along the Estuary.
- I. *Carpool and Ride-Matching Assistance Program* – Offer personalized ride-matching assistance to pair residents and employees interested in forming commute carpools. The project could use services such as 511.org RideShare, ZimRide, Scoop, or Enterprise RideShare.
- J. *Bicycle Parking Supply Monitoring* – Monitor the usage of both long-term and short-term bicycle parking throughout the project area and provide additional bicycle parking, if necessary.



- K. *Guaranteed Ride Home* – Encourage project residents who work in Alameda County and commercial tenants to register for and promote the Alameda County Transportation Commission (CTC) Guaranteed Ride Home (GRH) program. GRH programs encourage the use of alternative modes of transportation by offering free rides home if an illness or crisis occurs, 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 CTC offers their 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.
- L. *On-Site TDM Coordinator* – Designate a TDM coordinator either through the TMA or a dedicated on-site person responsible for implementing and managing the TDM Plan. The TDM coordinator would also be responsible for ensuring that all residents, employees, and visitors are aware of their transportation options and would serve as a point of contact regarding the TDM programs.
- M. *Marketing and Education* – Provide residents and employees information about transportation options. This information would also be posted at central location(s) and provided on a project website and be updated as necessary. In addition, new residents and employees would receive this information as part of a “Welcome Packet” upon moving in or getting hired. This information shall include:
- *Transit Routes* – Promote the use of transit by providing user-focused maps. These maps provide residents with wayfinding to nearby transit stops and transit-accessible destinations.
  - *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.
  - *Car Sharing* – Promote accessible car sharing programs, such as GIG, Zipcar, and Getaround by informing residents and employees of on-site and nearby car sharing locations and applicable membership information.
  - *Ridesharing* – Provide residents and employees with phone numbers and contact information for ride sharing options including Uber, Lyft, and Oakland taxicab services.
  - *Carpooling* – Provide residents and employees with phone numbers and contact information for carpool matching services such as the Metropolitan Transportation Commission’s 511 RideMatching.



- *Bikeshare/Scooters* – Educate residents and employees about bikeshare/scooters if they become available in Alameda.

As shown in Table 1, it is estimated that the TDM strategies described above would reduce the VMT and vehicle trips by between 6 and 11 percent, which would mitigate the VMT impact caused by the project, because the VMT reduction would be more than the three percent required to reduce the impact to a less-than-significant level. The TDM strategies may not meet the City's General Plan goal to reduce the peak hour trips generated by the project by 10 percent. Thus, additional measures may be needed to meet the General Plan goal.

#### 4. MONITORING AND EVALUATION

Consistent with the requirements of the mitigation measure in the project EIR, this TDM Plan includes an annual monitoring component to determine if the Plan goal of reducing automobile trips has been satisfied and to assess the effectiveness of each implemented strategy.

The monitoring shall be conducted annually beginning the first year after the first phase of the project has been occupied.

The annual monitoring shall consist of the following:

- A. *Commute Surveys* – All project residents and employees will be asked to participate in an anonymous survey. The survey shall include the following:
  - Resident or employee
  - Modes of travel to/from work
  - Location of residence or employment
  - If resident, number of vehicles owned and where they are typically parked
  - If transit rider, bus or shuttle route used
  - Awareness and levels of use and satisfaction with the transportation services and programs provided

The survey can be conducted online through SurveyMonkey or similar tools. The survey shall have a minimum response rate of 30 percent. If the minimum response rate is not met through the online survey, other methods, such as mail-in or intercept surveys, shall be used. The survey shall be conducted during the school year and at the same time each year.

- B. *Traffic and Parking Data Collection* – At the same time as the surveys, conduct the following:





- Hourly counts of vehicles entering and leaving the active project driveways on a mid-weekday (Tuesday through Thursday) from 7:00 AM to 9:00 PM
  - Parking occupancy counts of the active parking lots and structures during a mid-afternoon period (2:00 PM) and at night (10:00 PM) on a mid-weekday
- C. *Annual Report* – Prepare an annual report, that in addition to summarizing the results of the commute survey and the traffic and parking data collection, will provide the following:
- Status of all the TDM strategies implemented, including costs and measures of effectiveness/use where available
  - Based on the level of development completed and occupied, determine if the project has satisfied the trip reduction goal set by the General Plan to reduce the peak hour trip generation by 10 percent
  - If the above goal is not attained, outline the next steps that the project would take within the following year to meet the required goal
  - Other changes to refine, eliminate, or add TDM strategies due to ineffectiveness of current measures, introduction of new technologies, or other reasons to ensure the overall effectiveness of the TDM Plan in reducing the automobile trips generated by the project

The project and the TMA will be responsible for managing the successful implementation of this TDM Plan with annual reporting to the City of Alameda. Due to continuing changes in traffic patterns, transit services, emerging technologies and project demographics, it is expected that the TDM strategies presented in this document would evolve and be modified to meet the changing needs of the project. Thus, the project and the TMA have the discretion to refine the TDM Plan, eliminate ineffective strategies, and add new TDM strategies, which may require increasing the TMA assessments. If the project does not meet the trip reduction goals within five years of implementing the TDM Plan, the Planning Board shall review the TDM Plan to determine if the trip reduction goals should be modified or if any financial penalties should be assessed. At any time, the project can request Planning Board approval for any major modifications to the TDM Plan, such as changing the trip reduction goals or changes to the reporting requirements.

Please contact Sam Tabibnia ([s.tabibnia@fehrandpeers.com](mailto:s.tabibnia@fehrandpeers.com) or 510-835-1943) with questions or comments.