

## MEMORANDUM

Date: January 29, 2019  
To: Rebecca Auld, Lamphier-Gregory  
From: Sam Tabibnia and Jordan Brooks, Fehr & Peers  
Subject: **West Oakland BART TOD – Transportation and Parking Demand Management Plan**

OK18-0294

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The proposed West Oakland BART TOD project is required to prepare a Transportation and Parking Demand Management (TDM) Plan per the *City of Oakland's Transportation Impact Review Guidelines* and the City's Standard Conditions of Approval because the project would generate more than 50 net new peak hour trips. Since the project would generate more than 100 net new peak hour trips, the goal of the TDM Plan is to achieve a 20 percent vehicle trip reduction (VTR). This memorandum describes the project and its setting, lists the mandatory TDM strategies that the project shall implement to achieve the 20 percent VTR, provides the additional strategies that should be considered if the 20 percent VTR is not achieved, and describes the monitoring, evaluation, and enforcement of the TDM Plan.

### PROJECT DESCRIPTION

The proposed project would be located adjacent to the West Oakland BART station, bounded by 7th Street to the north, Mandela Parkway to the east, 5th Street to the south, and Chester Street to the west. The project would consist of four buildings that would include:

- 762 multi-family dwelling units
- approximately 382,000 square feet of office space
- approximately 75,000 square feet of ground-level commercial space

The project would also include 400 automobile parking spaces in a garage accessible via a driveway on Chester Street.



The project site is currently occupied by surface parking lots that provide 413 parking spaces for the West Oakland BART station, which the project would eliminate.

The following infrastructure improvements in the project vicinity are assumed to be part of the project because they are shown on the project site plan:

- Raised one-way Class 4 separated bikeways on both sides of 7th Street between Chester Street and Mandela Parkway.
- One-way Class 4 separated bikeways on both sides of Mandela Parkway between 7th and 5th Streets.
- A bike station on the east side of the existing BART station under the BART tracks and adjacent to a mid-block crossing on Mandela Parkway. The bike station is estimated to accommodate at least 500 bicycles, and would provide a repair station.
- The project proposes a 19-foot sidewalk along the project frontage on 5th Street, between Chester Street and Mandela Parkway. The sidewalk would have a minimum eight-foot pedestrian through zone, and the sidewalk width would accommodate the needs of pedestrians, bus passengers, and curbside passenger loading.
- The project proposes a sidewalk along the project frontage on 7th Street with a minimum eight-foot pedestrian through zone between Chester Street and Mandela Parkway. The sidewalk would provide adequate width to accommodate the high level of pedestrians with pedestrian amenities such as seating, real-time bus arrival information, trash receptacles, and pedestrian-lighting.
- The project proposes an 11 to 15-foot sidewalk along the project frontage on Chester Street and a 15-foot sidewalk along Mandela Parkway between 5th and 7th Street. All sidewalks would have a minimum eight-foot pedestrian through zone.
- As part of implementing a Class 4 cycletrack along westbound 7th Street, the project would eliminate the second receiving lane west of Mandela Parkway and shorten the pedestrian crossing distance for the west crosswalk at the 7th Street/Mandela Parkway intersection.
- The sidewalks along the project frontage and the internal pedestrian plazas would provide pedestrian-scale lighting and street trees/plantings.
- At the intersections of 5th Street with Chester Street, Center Street and Mandela Parkway, the project would provide high-visibility crosswalks, and directional ramps along all approaches.
- At the 5th Street/Center Street intersection, project would provide curb extensions (bulb-outs) at all four intersection corners.



- High-visibility, mid-block pedestrian crossing would be provided on Mandela Parkway between 5th and 7th Streets to align with the east-west pedestrian path within the project site. The midblock crossing would also allow access between the bike station and the northbound Class 4 cycletrack on Mandela Parkway.
- The project would provide a bus stop/layover zone along the project frontage on 5th Street just west of Mandela Parkway. The bus zone would be at least 170 feet long and a concrete bus pad would also be installed in the roadway. The bus stop and layover for AC Transit Lines 36 and 62 could be relocated to this location.
- The existing bus stop on eastbound 7th Street west of Mandel Parkway would be retained and extended for an approximate length of 270 feet. This stop could serve AC Transit Lines 29, 36, and 62 and could serve as both a stop and layover space for AC Transit Line 14. The bus stop would be located on a 10-foot bus island that separates the Class 4 cycletrack along this segment of 7th Street.
- A new bus stop would be installed on westbound 7th Street just west of Center Street that could serve AC Transit Line 29. The bus stop would be about 130 feet long. The bus stop would be located on a 10-foot bus island that separates the Class 4 cycletrack along this segment of 7th Street.
- The sidewalks along project frontage on 5th and 7th Street would have adequate width and would accommodate a high level of passenger amenities, including shelters with seating, maps and other information, and real-time bus arrival information; trash receptacles; and lighting. In addition, the roadway pavement would be upgraded to provide concrete pads for the bus stops.
- To facilitate buses turning from northbound Chester Street to eastbound 7th Street, Chester Street is redesigned so that buses are positioned closer to the center line of Chester Street, which would improve current conditions for buses. Due to the tight turning radius of the corner, buses cannot make the turn from Chester Street to 7th Street when positioned close to the curb on northbound Chester Street.
- The following would be designated for passenger loading and unloading:
  - Approximately 100 feet of linear curb along the north side of 5th street east of Center Street and about 200 feet west of Center Street
  - Approximately 250 feet of linear curb along the south side of 7th Street between Chester and Center Streets, with about 50 feet of curb on eastbound 7th Street just west of Center Street designated as a blue accessible loading zone.
- Parking would be prohibited at the following locations:
  - On the west side of Mandela Parkway between 5th and 7th Street



- On the east side of Chester Street between 5th and 7th Streets and on the west side of Chester Street between the mid-block crossing and 7th Street.

## PROJECT LOCATION

The project is located in a moderately dense area with streets generally laid out in a grid and sidewalks on most streets. It is located near some existing neighborhood-serving retail and industrial uses, and there are several proposed projects in the area that would increase residential density and provide neighborhood-serving retail uses. Additionally, the project is located within two miles of Downtown Oakland, a dense employment center.

The project is adjacent to the West Oakland BART Station, which is served by four BART lines and four AC Transit local bus lines. AC Transit Lines 14 and 62 have 15-minute peak headways, while Line 29 has 20-minute peak headways, and Line 36 has 30-minute peak headways. The Line 800 overnight bus also operates adjacent to the project site. No major changes to the bus routes operating near the project site are planned, though the project would involve relocating the bus stops within the site to the adjacent streets.

The project's proximity to regional transit and dense employment centers is likely to result in relatively high rates of walking, bicycling and transit use by residents and visitors. This is evidenced in part by the travel patterns of the area's existing residents. Based on US Census data, **Table 1** summarizes the transportation mode split for employed residents' journey to work for the census tracts in the project vicinity. About 46 percent of employed residents report driving alone to work. A high proportion of residents, approximately 29 percent, used public transportation to travel to work. The proportion of residents who walk or bike to work was also relatively high, with 12 percent reporting walking or biking to work. **Table 2** summarizes vehicle ownership for renter households for the census tracts in the project vicinity. About 38 percent of renter households near the project do not own vehicles, and the average automobile ownership is about 0.8 vehicles per renter household.

The number of automobile trips generated by the project is estimated to be slightly more than half the trips generated by a typical suburban residential development, as shown in **Table 3**. The project would also be expected to generate a vehicle-miles traveled (VMT) per resident that is about 83 percent of the regional VMT per worker, as the residential VMT per capita in the project TAZ is 12.5, compared to the regional average of 15.0, as documented in the Project CEQA Analysis document.



**TABLE 1**  
**JOURNEY TO WORK FOR EMPLOYED RESIDENTS**

<b>Transportation Mode</b>	<b>Percent of Households with Employed Residents</b>
Drove Alone	46%
Carpooled	5%
Public transportation	29%
Motorcycle	2%
Bicycle	7%
Walked	5%
Other	6%
<b>Total</b>	<b>100%</b>

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, Census Tracts 4018, 4022, 4024, 4025, and 4105, Table B08006.

**TABLE 2**  
**VEHICLE OWNERSHIP FOR EMPLOYED RESIDENTS**

<b>Vehicles Available</b>	<b>Percent of Renter Households with Employed Residents</b>
No vehicle available	38%
1 vehicle available	46%
2 vehicles available	14%
3+ vehicles available	2%
<b>Total</b>	<b>100%</b>

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, Census Tracts 4018, 4022, 4024, 4025, and 4105, Table B08203.



**TABLE 3**  
**WEST OAKLAND BART TOD PROJECT TRIP GENERATION BY TRAVEL MODE<sup>1</sup>**

Mode	Mode Share Adjustment Factors <sup>2</sup>	Daily	AM Peak Hour	PM Peak Hour
Automobile	53.1%	6,650	472	628
Transit	29.7%	3,720	264	351
Bike	5.1%	640	45	60
Walk	10.5%	1,310	93	124
<b>Total Trips</b>		<b>12,320</b>	<b>874</b>	<b>1,163</b>

Notes:

1. See West Oakland BART TOD – Transportation Assessment (non-CEQA) Memorandum for detailed assumptions and calculations.
2. Based on *City of Oakland Transportation Impact Study Guidelines* assuming project site is in an urban environment less than 0.5 miles from a BART station.

Source: Fehr & Peers, 2019.

## MANDATORY TDM STRATEGIES

This section describes the mandatory strategies that shall be implemented as part of the project. These strategies shall be directly implemented by the project applicant and building management. **Table 4** describes all mandatory TDM strategies that apply to the project, as well as the effectiveness of each strategy based on research compiled in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association (CAPCOA), August 2010). The CAPCOA report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies.

The City of Oakland Standard Conditions of Approval lists infrastructure and operational strategies that must be incorporated into a TDM plan based on project location and other characteristics. **Appendix A** presents these strategies and indicates if and how they apply to the proposed project.



**TABLE 4  
 MANDATORY TDM PROGRAM COMPONENTS**

TDM Strategy	Description	Estimated Vehicle Trip Reduction <sup>1</sup>	
		Residents	Workers
Infrastructure Improvements	Various improvements	-- <sup>3</sup>	-- <sup>3</sup>
Limited Residential Parking Supply	Project would provide a maximum of 0.5 parking spaces per unit, compared to average vehicle ownership of 0.8 in the surrounding neighborhood	8 – 15% <sup>2</sup>	N/A
Unbundled Parking	Parking spaces leased separately from unit rent		
No or Minimal Parking for Office/Commercial Uses	No or minimal parking is provided for the office or commercial uses	N/A	10 – 15%
Commercial Parking Management	No monthly permits and market-rate parking rates		
Carshare Parking Spaces	Dedicated on-site carshare parking spaces	<1%	<1%
Guaranteed Ride Home	Promotion of and enrollment of employees in Alameda County's Guaranteed Ride Home program	N/A	-- <sup>3</sup>
Bicycle Parking Supply and Monitoring	Provide bicycle parking above the minimum requirement and monitor usage of the bicycle parking facilities	<1%	<1%
Transit Operations	Contribute to AC Transit service enhancement	N/A	N/A
Transit Fare Subsidy	Provide transit subsidy to residents and employees <sup>4</sup>	5 – 10%	10 – 15%
Pre-Tax Commuter Benefit	Enroll in a service to assist with employees deducting transit passes using pre-tax income	N/A	-- <sup>3</sup>
TDM Marketing and Education	Active marketing of carpooling, BART, AC Transit, bikesharing, and other non-auto modes	-- <sup>3</sup>	1%
On-Site TDM Coordinator	Coordinator responsible for implementing and managing the TDM Plan		
<b>Component Estimated Vehicle Trip Reduction</b>		13 – 25%	21 – 31%
Percent of Total Trip Generation		44%	56%



**Total Estimated Vehicle Trip Generation**

**17 – 28%**

Notes:

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. CAPCOA document suggest that limited parking supply combined with unbundled parking can result in up to 20% VTR. However, the CAPCOA results assume minimal other parking facilities in the area. Thus, the CAPCOA-based results are adjusted because some free unrestricted on-street parking is available in the project area.
3. 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.
4. Assuming a subsidy of about \$1.50 per unit and per employee per day available to all residents and employees.

Source: Fehr & Peers, 2019.

The mandatory operational strategies in Table 4 are generally targeted at project residents and employees. While some of the mandatory operational strategies would also affect the travel behavior of retail customers and residential and office visitors, these groups are not directly targeted with TDM programs. The majority of the retail customers would likely be local residents and workers who would walk or bike to the site, and most residential and office visitors would visit the project too infrequently to be aware of the TDM benefits or to make them cost effective. The TDM program also includes infrastructure improvements that would benefit all site residents, employees, and visitors, as well residents, employees, and visitors in the surrounding areas, and BART riders at the West Oakland BART Station.

The VTR estimates in Table 4 represent conservative assumptions about potential trip reduction at the low end of the range. Due to the project's location in an area with very good transit, bicycle, and pedestrian access, it is expected that the high end of the VTR range would be achieved with this TDM program.

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 are therefore anticipated to 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. A more detailed description of the TDM measures that comprise the mandatory TDM program is provided below:



- *Infrastructure Improvements* – the following infrastructure improvements in the project vicinity were identified as part of the Site Plan Review for the project, and improve the bicycling, walking, and transit systems in the area and further encourage the use of these mode:
  - Review the final site plans for the project to ensure that the garage driveway on Chester Street and the loading docks for each project building would provide adequate sight distance between vehicles exiting the garage and pedestrians on the adjacent sidewalk.
  - Implement the following at the 7th Street/Mandela Parkway intersection:
    - Convert the existing through/right-turn lane on the westbound 7th Street approach to a right-turn/bus only lane, and remove the merge lane on westbound 7th Street west of the intersection
    - Modify the signal timings at the intersection to provide a bus only phase for the westbound approach, and reduce the signal cycle length to 90 seconds
  - After the completion of the first phase of the project, conduct a signal warrant analysis at the 7th Street/Chester Street intersection to determine if and when the intersection should be signalized. If signalization is warranted, the project shall signalize the intersection with protected left-turn phasing for the east/west 7th Street approaches. In addition and as determined by the City of Oakland staff, the signal may be interconnected with existing adjacent signals along 7th Street. If signalization is not warranted, the project shall conduct an analysis to determine if other control devices, such as all-way stop controls, or rectangular rapid flash beacon (RRFB) should be installed at the intersection. The project shall implement the recommended improvement at the intersection as approved by the City of Oakland.
  - Ensure that the Ford GoBike station currently located in-street on 7th Street just east of Center Street is relocated on the BART Station Plaza to provide close and convenient access to the West Oakland BART station and the bicycle facilities adjacent to the project site.
  - Explore the feasibility of (and implement, if feasible) installing curb extensions (bulb-outs) and directional curb ramps with truncated domes at the following locations:
    - Southwest corner of the 7th Street/Chester Street intersection.
    - All four corners of the 5th Street/Mandela Parkway intersection and curb extensions (bulb-outs) across the 5th Street approaches of the southwest and northeast corners.
  - Provide all-way stop control at the 5th Street/Center Street and 5th Street/Chester Street intersection.



- If reviewed and approved by BART and Oakland Fire Department, provide rolled curb instead of curb cuts for emergency vehicle access points on Chester Street and Mandela Parkway.
- Install a pedestrian scramble at the 7th Street/Center Street intersection.
- Install improvement measures at the proposed mid-block crossing on Mandela Parkway, such as raised crosswalk, RRFB, or other measures as approved by the City of Oakland.
- Coordinate with the City of Oakland and the appropriate property owners to determine the feasibility of and if deemed feasible, complete the sidewalk gap on the south side of 5th Street just east of Center Street.
- Consider designating a bus stop for intercity coaches (e.g., Megabus and Bolt) and other shuttles on 7th Street between Henry and Chester Streets.
- *Limited Residential Parking Supply* – The project would provide up to 400 off-street automobile parking spaces for the residential component of the project, which corresponds to a maximum of 0.5 spaces per unit. This is less than the current average auto ownership of 0.8 vehicles per household in the project area, as shown in Table 1, and would attract households with no vehicles.
- *Unbundled Parking* – Unbundle parking costs from housing costs (as required by Oakland Municipal Code, Section 17.116.310). This would result in residents paying one price for the residential unit and a separate price for parking, should they opt for a space. The price of a parking space can be adjusted so that resident parking demand matches the building's parking supply.
- *No or Minimal Parking for Office/Commercial Uses* – The project would provide none or minimal automobile parking for the office/commercial component.
- *Commercial Parking Management* – If the project provides parking for the commercial and retail components of the project, or parking for the general public, the following shall also be implemented:
  - *No monthly permits and establish minimum price floor for any public parking* — required by the City of Oakland if proposed parking ratio exceeds 1:1,000 square feet (commercial) but should be implemented regardless.
  - *Price parking to achieve desired usage goals* - parking should be priced at the market rate at a minimum and ideally set at a level that makes driving more expensive than non-automobile modes of transportation



- *Carshare Parking Spaces* – Offer to dedicate for free at least six on-site parking spaces available for carsharing. Monitor the usage of the carsharing spaces and adjust if necessary.
- *Guaranteed Ride Home* – Encourage project commercial tenants to register their employees and promote the Alameda County Transportation Commission 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 County Transportation Commission 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.
- *Bicycle Parking Supply and Monitoring* – The project would include long-term on-site parking for project residents and employees, a bike station at the BART station, and short-term parking in the form of bike racks along the project frontages, exceeding the City's minimum requirements for bicycle parking. Building management shall monitor the usage of these facilities and provide additional bicycle parking, if necessary.
- *Transit Operations* – The project applicant shall, if feasible, contribute its fair share to AC Transit service enhancements to meet access goals outlined in the City of Oakland West Oakland Specific Plan and AC Transit's ACgo expanded service plan and improve connections to local goods and services. Alternatively, the project applicant may explore and propose other TDM measure(s), including those already set forth in the TDM plan, in lieu of this fair share contribution. The City may approve the substitute TDM measure(s) if the City, in its discretion, deems the measure(s) more feasible, reasonably related and roughly proportional to the transportation impacts of the development.
- *Transit Fare Subsidy (Residents)* – Provide a monthly transit benefit to each dwelling unit. Options include providing discounted Adult 31-Day AC Transit Pass (valued at \$84.60 as of January 2019), AC Transit EasyPass, or monthly Clipper Card contributions.
- *Transit Fare Subsidy (Workers)* – Building management shall either offer to provide or require project tenants to provide free or reduced cost transit in order to increase transit mode share. This analysis assumes that a subsidy of \$1.50 per weekday per worker (value to worker) would be available to all site workers. Options include:
  - Building management or employers can 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 2018, IRS allows up to \$260 per employee per month.



- Building management or employers can participate in 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](http://www.actransit.org/rider-info/easypass).
- *Pre-tax Commuter Benefits* – Building management shall encourage project tenants to enroll in a service (such as WageWorks) 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.
- *TDM Marketing and Resident Education* – Site management shall provide residents and employees information about transportation options. This information would also be posted at central location(s) and be updated as necessary. 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 and are particularly useful for those without access to portable mapping applications. The project should consider installing real-time transit information, such as TransitScreen, in a visible location to provide residents with up-to-date transit arrival and departure times.
  - *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 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 taxi cab 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.
  - *Walking and Biking Events* – Provide information about local biking and walking events, such as Oaklavia, as events are planned.
  - *Bikeshare* – Educate residents and employees about nearby bike sharing station locations and membership information.
- *On-Site TDM Coordinator* – The project shall provide an on-site TDM coordinator 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 for hotel guests and employees regarding TDM programs.

## ADDITIONAL OPERATIONAL STRATEGIES

If the mandatory measures do not meet the required goal of 20 percent VTR, and additional vehicle trip reduction is needed, the project shall consider the implementation of some or all of the following additional strategies to limit automobile use and encourage non-automotive travel.

- *Residential Parking Management* – Restrict parking to one parking space per unit or less, thereby discouraging multiple car ownership and/or use. 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. Additionally, if a residential parking permit (RPP) program is implemented in the project vicinity, project residents shall not be eligible for parking permits.
- *Bikeshare/Scooter Membership* – Provide tenants and residents a subsidy to offset the cost of bikeshare and/or scooter membership and encourage the use of non-automobile modes.
- *Carshare Memberships* – Provide residents with free or discounted carshare membership to offset the cost of car sharing programs and reduce the demand for private vehicle ownership.
- *Increased Transit Fare Subsidy* – Increase the transit fare subsidy for project residents and employees.
- *Personalized Trip Planning* – In the form of in-person assistance or as a web tool, provides residents and employees with a customized menu of options for commuting. Trip planning reduces the barriers the residents and employees see to making a walk, bike, or transit trip to the site. Transit trip making tools, such as those available from Google or 511.org, could be promoted to inform residents and employees of transit options to/from work. Providing a preferred walking map routes to residents and employees living within one mile of the site and a bicycling route map to all residents and employees living within five miles of the site would be a proactive strategy to encourage those employees to use alternatives to driving.

## TDM MONITORING, EVALUATION AND ENFORCEMENT

Consistent with the requirements of the City's Standard Conditions of Approval, this TDM program requires regular periodic evaluation to determine if the program goal of reducing automobile trips has been satisfied and to assess the effectiveness of the implemented strategies. Beginning the first



year after the development and occupancy of the project, building management must prepare an annual TDM monitoring report consisting of the following:

- Summary of implemented TDM measures and their effectiveness (e.g. bicycle parking occupancy, number of transit passes issued, etc.)
- Results of project resident and employee transportation surveys to monitor the vehicle trip generation and mode share for project residents and employees
- Weekday AM and PM peak period and daily traffic volume counts at the garage driveway on Chester Street

As previously discussed, the goal of the TDM program is to reduce the number of vehicle trips generated by the project by 20 percent. This level would correspond to a total project vehicle trip generation of no more than 378 trips during the AM peak hour and 467 in the PM peak hour.

Based on the results of the surveys, TDM programs shall be increased if these goals are not met. This program ensures the implementation of the mandatory TDM measures and related requirements through compliance with the Mitigation Monitoring and Reporting Program, as implemented through the Conditions of Approval adopted for the project.

The first monitoring report must be prepared one year after full occupancy of the first phase of the project, and subsequent monitoring reports must be prepared annually. If following the annual monitoring the TDM goals are not satisfied, additional measures shall be implemented, with consultation with City staff, until the goal is met.

If in two successive years the project's TDM goals are not satisfied, site management shall prepare and submit for City approval a Corrective Action Plan. The Corrective Action Plan shall detail the additional TDM measures to be implemented on site and their expected modal split reduction.

If, one year after the Corrective Action Plan is implemented, the required automobile mode share reduction target is still not being achieved, or if site management fails to submit a report as described above, or if the reports do not meet City requirements outlined above, the City may, in addition to its other remedies, (a) assess the project a financial penalty based on the observed reduction in the automobile mode share compared to the target; or (b) refer the matter to the City Planning Commission for scheduling of a compliance hearing to determine whether the project's approvals should be revoked, altered or additional conditions of approval imposed.



The penalty as described in (a) above shall be determined by assigning a cost to the number of additional automobile trips to be reduced in order to meet the required goal. Assuming the cost per new alternative commuter is \$26/day and that there are 261 workdays per year, the annual cost per new alternative commuter is \$6,790. The project shall therefore pay a penalty of \$6,790 per year for each trip that should have been using an alternative mode if the 20 percent reduction after completion of the Project had been achieved.

In determining if a financial penalty or other remedy is appropriate, the City shall not impose a penalty if the project has made a good faith effort to comply with the TDM program. The City would only have the ability to impose a monetary penalty after a reasonable cure period and in accordance with the enforcement process outlined in the City's Planning Code Chapter 17.152. If a financial penalty is imposed, such penalty sums shall be used by the City solely toward the implementation of the TDM plan.

If in five successive years the project is found to meet the stated TDM goal, additional surveys and monitoring shall be suspended until such a time as the City deems they are needed.

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



**APPENDIX A  
 TDM PROGRAM CONSISTENCY WITH CITY REQUIREMENTS**

TDM Strategy	Required When	Required for Proposed Project?
Bus boarding bulbs or islands	<ul style="list-style-type: none"> <li>• A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or</li> <li>• A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb</li> </ul>	<p><b>Yes</b>, the project would relocate several bus stops from within the BART station to adjacent streets, including bus boarding islands on both directions of 7th Street.</p>
Bus shelter	<ul style="list-style-type: none"> <li>• A stop with no shelter is located within the project frontage, or</li> <li>• The project is located within 0.10 miles of a flag stop with 25 or more boardings per day</li> </ul>	<p><b>Yes</b>, bus shelters would be provided at all bus stops along the project frontage.</p>
Concrete bus pad	<ul style="list-style-type: none"> <li>• A bus stop is located along the project frontage and a concrete bus pad does not already exist</li> </ul>	<p><b>Yes</b>, concrete bus pads would be provided at all the bus stops relocated to the project frontage.</p>
Curb extensions or bulb-outs	<ul style="list-style-type: none"> <li>• Identified as an improvement within site analysis</li> </ul>	<p><b>Yes</b>, the project would provide curb extensions at intersections along the project frontage</p>
Implementation of a corridor-level bikeway improvement	<ul style="list-style-type: none"> <li>• A buffered Class 2 or Class 4 bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and</li> <li>• The project would generate 500 or more daily bicycle trips</li> </ul>	<p><b>Yes</b>, the project would provide Class 4 bikeways on both directions of 7th Street and Mandela Parkway along the project frontage.</p>
Implementation of a corridor-level transit capital improvement	<ul style="list-style-type: none"> <li>• A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and</li> <li>• The project would generate 400 or more peak period transit trips</li> </ul>	<p><b>Yes</b>, while the project is estimated to generate fewer than 400 peak hour transit trips, the project would implement a bus queue jump Lane on westbound 7th Street at Mandela Parkway.</p>
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	<ul style="list-style-type: none"> <li>• Always required</li> </ul>	<p><b>Yes</b>, the project would upgrade the pedestrian amenities within the site and on the adjacent sidewalks.</p>



**APPENDIX A  
 TDM PROGRAM CONSISTENCY WITH CITY REQUIREMENTS**

TDM Strategy	Required When	Required for Proposed Project?
<p>Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)</p>	<ul style="list-style-type: none"> <li>When improvements are identified in the Pedestrian Master Plan (PMP) along project frontage or at an adjacent intersection</li> </ul>	<p><b>Yes</b>, although the PMP does not identify any specific improvements near the project, the project would provide high-visibility crosswalk striping and directional curb ramps at intersection adjacent to the project.</p>
<p>In-street bicycle corral</p>	<ul style="list-style-type: none"> <li>A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages.</li> </ul>	<p>No, the project would not provide on-street vehicle parking along the project frontage. Short-term bicycle parking will be accommodated within the project site.</p>
<p>Intersection improvements, including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.</p>	<ul style="list-style-type: none"> <li>Identified as an improvement within site analysis</li> </ul>	<p><b>Yes</b>, the project would provide curb extensions at intersections along the project frontage.</p>
<p>New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards</p>	<ul style="list-style-type: none"> <li>Always required</li> </ul>	<p><b>Yes</b>, the project would upgrade the sidewalks along the project frontage.</p>
<p>No monthly permits and establish minimum price floor for public parking</p>	<ul style="list-style-type: none"> <li>If proposed parking ratio exceeds 1:1,000 sf (commercial)</li> </ul>	<p><b>Yes</b>, if commercial parking is provided, no monthly permit would be provided and a minimum price floor for public parking would be established. Although, off-street commercial parking would be at less than 1:1,000 sf, if provided.</p>
<p>Parking garage is designed with retrofit capability</p>	<ul style="list-style-type: none"> <li>Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1,000 sf (commercial)</li> </ul>	<p>Not applicable, the residential parking ratio would be less than 1.25; if off-street commercial parking is provided, it would be at less than 1:1,000 sf.</p>



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TDM Strategy	Required When	Required for Proposed Project?
Parking space reserved for car share	<ul style="list-style-type: none"> <li>A project is located within downtown (CBD and D-LM zones). One car share space preserved for buildings between 50 – 200 units, then one car share space per 200 units.</li> </ul>	<p><b>Yes</b>, although the project is not located in a downtown zone, the project would offer to dedicate up to six spaces in the garage for car share.</p>
Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	<ul style="list-style-type: none"> <li>Typically required</li> </ul>	<p><b>Yes</b>, provided.</p>
Pedestrian crossing improvements, pedestrian-supportive signal changes, including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a “scramble” signal phase where appropriate.	<ul style="list-style-type: none"> <li>Identified as an improvement within site analysis</li> <li>Identified as an improvement within operations analysis</li> </ul>	<p><b>Yes</b>, cycle lengths adjacent to the project would be reduced to 90 seconds and a pedestrian scramble would be provided at the 7th Street/ Center Street intersection.</p>
Real-time transit information system	<ul style="list-style-type: none"> <li>A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better</li> </ul>	<p><b>Yes</b>, project would provide real-time transit information.</p>
Relocating bus stops to far side	<ul style="list-style-type: none"> <li>A project is located within 0.10 mile of any active bus stop that is currently near-side</li> </ul>	<p><b>Yes</b>, project would relocate bus stops from within the BART Station to adjacent streets, including the far sides of westbound 7th Street at Center Street and eastbound 5th Street at Mandela Parkway.</p>
Signal upgrades, including typical traffic lights, pedestrian signals, bike actuated signals, transit only signals	<ul style="list-style-type: none"> <li>Project size exceeds 100 residential units, 80,000 sf of retail, or 100,000 sf of commercial; and</li> <li>Project frontage abuts an intersection with signal infrastructure older than 15 years</li> </ul>	<p><b>Yes</b>, a new traffic signal may be installed at the 7th Street/ Chester Street intersection.</p>
Transit queue jumps	<ul style="list-style-type: none"> <li>Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better</li> </ul>	<p><b>Yes</b>, the project would provide a bus queue jump Lane on westbound 7th Street at Mandela Parkway.</p>



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TDM Strategy	Required When	Required for Proposed Project?
Trenching and placement of conduit for providing traffic signal interconnect	<ul style="list-style-type: none"> <li>• Project size exceeds 100 units, 80,000 sf of retail, or 100,000 sf of commercial; and</li> <li>• Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and</li> <li>• A major transit improvement is identified within operations analysis requiring traffic signal interconnect</li> </ul>	<p><b>Yes</b>, a new traffic signal may be installed at the 7th Street/ Chester Street intersection and be interconnected with existing signals along 7th Street.</p>
Unbundled parking	<ul style="list-style-type: none"> <li>• New multifamily dwelling residential facilities of ten (10) or more units, with the exception of affordable housing</li> </ul>	<p><b>Yes</b>, the residential component of the project would provide unbundled parking.</p>

Sources: City of Oakland Transportation Impact Review Guidelines, 2017 and City of Oakland Municipal Code, 2018