

EXHIBIT A - FINDINGS OF FACT REGARDING IMPACTS AND MITIGATION MEASURES

I. PROJECT DESCRIPTION:

Based on input received from the Planning Commission, community meetings and planning staff requesting replacement of more surface parking lots, urban neighborhood design and the creation of a more urban street grid, the applicant has agreed to redevelop portions of the existing Marketplace with the "Reduced Main Street Alternative" described in the Final EIR. The Reduced Main Street Alternative is assumed to be "the Project" or "the Proposed Project" in this Exhibit A. Under the Reduced Main Street alternative, the 15-acre project site would be substantially redeveloped to replace surface level parking; realign Shellmound Street directly in front of the Marketplace Tower and Public Market buildings; add two new street segments with on-street parking (63rd and 62nd Streets); and add nine new buildings within the site and enlarge City Park.

The existing Marketplace would be redeveloped with a phased mixed-use planned unit development to accommodate up to 674 multi-family residential units, 180,000 square feet of retail, 120,000 square feet of office, including City Code-required parking spaces, infrastructure and landscaping improvements. The development of this alternative is proposed to occur in four phases as described below.

Phase I would include the development of five buildings including the two buildings proposed east of Shellmound, just north of the Woodfin Suites Hotel; a retail and residential mixed use building at 64th & Christie (and demolition of the two existing light industrial buildings currently at this location); a small retail building southwest of the intersection of Shellmound Way and Shellmound Street, and a retail kiosk adjacent to Borders. A new 4-way stop would be installed at the relocated 63rd Street driveway to Marketplace at Christie Avenue to provide a controlled driveway for the project site. The development of 63rd as a City street would occur in a later phase.

In response to comments from neighboring residents concerned with view impacts, the most southern portion of the Shellmound site would be developed with low-rise retail space, townhome units and structured parking. The portion of the site just north of the pedestrian bridge would be occupied by a residential tower, low-rise retail and structured parking. The building developed on the southern half of this site would be approximately 40 feet tall where it abuts Shellmound Street and pedestrian activity areas. The front (west) portion of this building would provide 8,525 square feet of retail space and 10 townhome units. The rear (east) portion of the building's base would provide four levels plus roof level structured parking (541 spaces). The only surface parking area that would remain in this area of the site would be located south of the project site, adjacent to the Woodfin Hotel.

In response to resident comments, density has been consolidated away from resident view sheds to the east of the Railroad tracts with development of the northern portion of the Shellmound site that would entail construction of a high-rise (14 levels, 175 feet maximum height) mixed use building immediately north of the Amtrak pedestrian bridge that would include 6,200 square feet of ground-floor retail, 196 residential units, and 127 structured parking spaces.

Phase I would also include the development of a 3,500 square-foot retail pad northwest of the intersection of Shellmound Street and Way and a 1,000 square-foot retail kiosk immediately south of Borders.

Phase IIA (Option 1) would the realignment of the portion Shellmound to the west to allow for the development of the northern portion of the Shellmound site with a 120,000 square feet of mid-rise office (5 levels, 120 feet), five levels of structured parking, and 29,150 square feet of low rise (2 levels) commercial between the structured parking and Shellmound Street.

Phase IIA (Option 2) would the redevelopment of the existing UA Theater to a new mixed use building between 63rd and 64th streets and will include a up to 100,000 square feet of retail (2 levels, 40 feet; a 130 units of mid-rise (11 levels, 150 feet) residential above parking at the southwest corner; a 68 townhomes (6-levels, 75 feet) above one level of commercial (14,500 square feet) adjacent to 64th Street; and a 4-level plus roof parking structure (538 spaces).

Either Phase IIA (Option 1) or IIA (Option 2) may occur first, depending on market conditions and parking phasing requirements of existing tenants.

Phase IIB would include the improvement of 63rd as a City street between Shellmound and Christie Avenue. A retail pad would also be located in the area currently occupied by City Park and the park would be shifted to the north and slightly enlarged.

Phase III would include development of a mid-rise (ground floor retail adjacent to 3 levels of parking, 5 levels of residential, maximum height of 85 feet) residential and retail building west of Shellmound Street between 63rd and 62nd streets. The building would include 86 residential units, 5,000 square feet of retail, and 150 parking spaces. A new segment of 62nd Street would be improved on the project site between the park and Shellmound Street. 62nd Street would extend to Christie Avenue through the park only as a pedestrian pathway.

Existing Uses. The Marketplace Tower and Public Market buildings would be retained, and the two light industrial buildings on the corner of 64th Street and Christie Avenue, and the UA Cinema buildings would be removed. Christie Avenue Park would be shifted north to provide for a larger park area and the construction of a retail building.

Amtrak Pedestrian Connection. The western tower of the Amtrak bridge would remain a stand-alone structure that would abut the parking structure to the south. The existing elevator in the western Amtrak tower would be retained but stair system would be redesigned and replaced. The Shellmound Buildings and surrounding landscaping and circulation improvements would provide a clear connection from Shellmound Street to the existing Amtrak bridge tower via a grand staircase.

Site Improvements. At full build-out, the project would substantially improve vehicular, bicycle and pedestrian circulation through the project site by removing a substantial portion of the surface parking spaces, realigning the portion of Shellmound Street adjacent to the Public Market and Tower building to the west, improving 63rd Street within the project site, adding a portion of 62nd

Street on the site between Shellmound Street and the eastern border of the park, and adding parallel, on-street parking throughout the site.

In addition, a four-way stop sign would be installed at the intersection of 63rd Street and Christie Avenue, which would slow traffic and increase pedestrian crossing safety and ease. Improvements to 64th Street and Christie Avenue proposed by the project would also occur, including narrowing of the roadway with bulb-outs to slow vehicular traffic and enhanced sidewalk landscaping and shade trees. These improvements would also be incorporated in the 62nd and 63rd Street areas in the site.

Pedestrian improvements on Shellmound Street would include a wide pedestrian street crossing and a new plaza at the site's connection with the Amtrak bridge. This plaza would provide a transit center with a bus lay-over area and transit information kiosk. An additional large plaza would be incorporated into this alternative, adjacent to the new intersection of 63rd Street and Shellmound Street. The location of the new plaza and enhanced street crossings would create pedestrian visual connections across the site from the existing Marketplace buildings to the new buildings at the northern end of the site. Bike lanes would be accommodated on Shellmound Street.

Compared to the proposed project described in the Final EIR, the Reduced Main Street Alternative would provide 334 more dwelling units, an additional 179,875 square feet of retail/restaurant space, 105,140 square feet of additional office space, and 40,000 fewer square feet of entertainment space (due to removal of UA Cinema movie theaters). The City Council finds that project achieves the City objectives of activating and replacing surface parking lots, creating an urban neighborhood, and establishing a more urban street grid. The City Council also finds that the overall analysis contained in the Final EIR, specifically Section V. - Reduced Main Street Alternative has adequately addressed all the potentially significant impacts that may result and moreover, provides sufficient analysis to compare adequately the proposed project with the project alternatives assessed in the Final EIR.

II. **THE FINAL EIR:** The Final EIR consists of the Draft EIR and the Response to Comments Document.

III. **THE RECORD:** The following information is incorporated by reference and made part of the record supporting these findings:

- Draft EIR, Response to Comments Document and all documents relied upon or incorporated by reference and all testimony, documentary evidence and correspondence submitted to or delivered to the Emeryville Planning Commission, Emeryville City Council in connection therewith.
- City of Emeryville Planning Commission Staff Report dated April 24, 2008 and May 22, 2008, 2008; City of Emeryville Planning Commission Resolution No. EIR 08-01; City of Emeryville Planning Commission Resolution No. PUD 08-01; and all testimony, documentary evidence and correspondence submitted to or delivered to the Emeryville Planning Commission.

- City of Emeryville City Council Staff Report dated July 15, 2008; City of Emeryville City Council Resolution No. 08-__ ; City of Emeryville City Council Resolution No. 08-__ ; City Council Ordinance No. 08-__ and all testimony, documentary evidence and correspondence submitted to or delivered to the Emeryville City Council.
- All testimony, documentary evidence and all correspondence submitted to or delivered to the Emeryville City Council in connection with the project.
- All staff reports, memoranda, maps, slides, letters, minutes of public meetings and other documents relied upon or prepared by City staff or consultants relating to this project.
- These Findings, the Findings of Fact Concerning Alternatives and the Statement of Overriding Considerations adopted in connection with this project.
- The Mitigation Monitoring and Reporting Program

IV. CUSTODIAN OF DOCUMENTS

The custodian of the record is the Director of Planning and Building, City of Emeryville, 1333 Park Avenue, Emeryville, CA 94608 Floor, City of Emeryville, CA 94608.

V. FINDINGS AND STATEMENT OF FACTS SUPPORTING THE FINDINGS

The Environmental Impact Report for the Marketplace Project, prepared in compliance with the California Environmental Quality Act, evaluates the potentially significant and adverse environmental impacts which could result from the adoption of the project.

Pursuant to Section 15091 of Title 14 of the California Code of Regulations, the City is required to make certain findings with respect to these impacts. This document lists all identified potentially significant and significant impacts of the project, which can be avoided and mitigated to less than a significant level. This document also lists all potentially significant and significant impacts of the project, which cannot be mitigated to a less than significant level but for which the magnitude of the impact can be reduced or for which there is no feasible mitigation. These impacts are considered acceptable by the City based upon a determination that the benefits of the project (listed in this document and in the Statement of Overriding Considerations, Exhibit D) outweigh the risks of the potentially significant impacts of the project.

A. POTENTIALLY SIGNIFICANT OR SIGNIFICANT IMPACTS THAT CAN BE AVOIDED AND MITIGATED TO LESS THAN SIGNIFICANT LEVEL

As authorized by California Public Resources Code Section 21081 and Sections 15091, 15092 and 15093 of Title 14 of the California Code of Regulations, the City finds that changes or alterations have been required in, or incorporated into, the Project, which mitigate or avoid the significant environmental impacts listed below.

These findings are supported by substantial evidence in the record of proceedings before the City as stated below. Each significant impact that can be reduced to a less-than-significant level is discussed below, and the appropriate mitigation measure stated, and adopted for implementation

by approval of these Findings of Fact. Additional information related to the facts in support of the findings with respect to each mitigation measure is set forth in the Mitigation Monitoring and Reporting Program.

TRANSPORTATION AND CIRCULATION

Impact TRAF -5: The Shellmound Street/65th Street and the Overland Street/65th Street intersections would operate as one intersection in 2010 and are projected to operate at an acceptable LOS D with an overall average delay of 46 seconds during the PM peak hour. The addition of project trips during the weekday PM peak hour would degrade the LOS to E and increase overall intersection delay to 56 seconds, an 11 second increase. Additionally the intersection would experience deficient operations when a train crosses over 65th Street.

Mitigation Measure: Implement Mitigation Measure TRAF-1b and modify signal operations to provide protected/permitted left-turns on the southbound Shellmound Street approach. Implementation of this improvement by the City would improve the overall intersection operations to LOS E in the PM peak hour in 2030, reducing the impact to a less-than-significant level.

This impact also occurs in the 2010 and 2030 scenarios and can be attributed to existing traffic in the area, as well as traffic from approved, planned, and potential developments in and around Emeryville. Therefore, it is recommended that the City update the Traffic Impact Fee Program to include this recommendation, and that the project applicant contribute their fair share to these improvements through the payment of fees.

Findings: The City finds that modification of the signal operations to provide protected/permitted left-turns on the southbound Shellmound Street approach would improve the overall intersection operations to LOS E in the PM peak hour in 2030, reducing the impact to a less-than-significant level. In addition, the implementation of the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits.

Impact TRAF-6: The 64th Street/Shellmound Street intersection, a side-street stop-controlled intersection, is projected to operate at an overall acceptable service level in 2010. The side-street is also expected to operate acceptably prior to the addition of project traffic in 2010. The addition of project traffic would result in unacceptable side-street operations in 2010, although the intersection would continue to operate at an overall acceptable service level.

Mitigation Measure: The applicant shall implement TRAF-1B and install a traffic signal at the intersection of 64th Street/Shellmound Street when warranted by actual conditions. Prior to the occupancy of each phase, the applicant shall provide a traffic report prepared by a licensed traffic engineer to determine whether conditions warrant a traffic signal at this intersection.

Findings: The City finds that the installation of a traffic signal at the intersection of 64th Street/Shellmound Street above is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact TRAF-9: The 40th Street/Hollis Street intersection is projected to operate at an acceptable LOS D with an overall average delay of 50 seconds during the PM peak hour in 2010. The addition of project trips during the weekday PM peak hour would degrade the intersection to LOS E with an overall intersection delay of 56 seconds, a six second increase.

Mitigation Measure: Retime the traffic signals on the 40th Street corridor to improve traffic flow and minimize delay and queuing. This impact can be attributed to traffic from approved, planned and potential developments in and around Emeryville. Therefore, it is recommended that the City update the Traffic Impact Fee Program to include the recommendation and the applicant contribute their fair share of these improvements through the payment of fees based on the Updated Traffic Impact Fee.

Findings: The City finds that the retiming of the traffic signals at 40th Street and Hollis Street is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact TRAF-15: The Shellmound Street/65th Street and the Overland Street/65th Street would operate as one intersection in 2030 and is projected to operate at an unacceptable service level F with an overall average delay of 96 seconds during the PM peak hour and at an acceptable service level D with an overall average delay of 43 seconds during the Saturday peak hour. The addition of project trips during the weekday PM peak hour would increase overall intersection delay to 119 seconds, a 23 second increase. The addition of project trips during the Saturday afternoon peak hour would degrade the intersection to LOS F and increase overall intersection delay to 156 seconds, a 113 second increase. The addition of project traffic would also increase the 95th percentile queue lengths for several approaches that currently exceed or are projected to exceed the available storage capacity during the weekday PM and Saturday afternoon peak hours.

Mitigation Measure: Implement Mitigation Measures TRAF-5 and 1b.

Findings: The City finds that modification of the signal operations to provide protected/permitted left-turns on the southbound Shellmound Street approach would improve the overall intersection operations to LOS E in the PM peak hour in 2030, reducing the impact to a less-than-significant level. In addition, the implementation of the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits.

Impact TRAF-16: The 65th Street/Hollis Street intersection is projected to operate at an acceptable LOS D with an overall average delay of 40 seconds during the PM peak hour in 2030. The addition of project trips during the weekday PM peak hour would degrade the intersection to LOS E with an overall intersection delay of 59 seconds, a 19 second increase.

Mitigation Measure: Retime the traffic signal on the 65th Street corridor to improve traffic flow and minimize delay and queuing. This impact can be attributed to traffic from approved, planned and potential developments in and around Emeryville. Therefore, it is recommended that the City update the Traffic Impact Fee Program to include the recommendation and the applicant contribute their fair share of these improvements through the payment of fees based on the Updated Traffic Impact Fee.

Findings: The City finds that the remaining of the traffic signal at 65th Street and Hollis Street is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact TRAF-17: The 64th Street/Shellmound Street intersection, a side-street stop-controlled intersection, is projected to operate at an overall acceptable service level in 2030. The side-street is also expected to operate acceptably prior to the addition of project traffic in 2030. The addition of project

traffic would result in unacceptable side-street operations in 2030, although the intersection would continue to operate at an overall acceptable service level.

Mitigation Measure: Implement Mitigation Measures TRAF-6 and 1b.

Findings: The City finds that installing a traffic signal at the intersection of 64th Street/Shellmound Street when warranted by actual conditions is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level. In addition, the implementation of the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits.

Impact TRAF-21: The 40th Street/Hollis Street intersection is projected to operate at an unacceptable service level F with an overall average delay of 82 seconds during the PM peak hour in 2030. The addition of project trips during the weekday PM peak hour would increase intersection delay to 90 seconds, an eight second increase. The addition of project traffic would also increase the 95th percentile queue lengths for several approaches that currently exceed or are projected to exceed the available storage capacity during the weekday PM peak hour.

Mitigation Measure: Implement Mitigation Measure TRAF-1b and 9. TRAF-9 includes retiming the traffic signals on the 40th Street corridor to improve traffic flow and minimize delay and queuing. The implementation of the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits.

Findings: This impact can be attributed to traffic from approved, planned, and potential developments in and around Emeryville. Therefore, it is recommended that the City update the Traffic Impact Fee Program to include the recommendation, and that the Project Applicant contribute their fair share to these improvements through the payment of fees. In addition, the City finds that retiming the traffic signals on the 40th Street corridor is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level. In addition, the implementation the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits.

Impact TRAF-27: The addition of project traffic would worsen side street operations at the Shellmound Street/Woodfin Hotel/ Marketplace Driveway intersection to LOS F with buildout of the project.

Mitigation Measure: The driveway serving the Woodfin Hotel cannot accommodate significant additional traffic flows. The parking area serving the new land uses on the Shellmound site shall be designed to orient the majority of outbound traffic, about 80 percent, away from the shared driveway. Alternatively, this driveway could be restricted to right-in/right out operation. When Phase IIA (option 1) is developed, an internal connection between the two garages would be constructed. Internal signage when the Phase II A (option 1) garage is built, shall direct vehicles to exit from the driveway aligned with 63rd Street. The Final Development Plan submittals shall be reviewed by the City Engineer prior to approval to ensure this is accomplished.

Findings: The City finds that the above stated mitigation measure addressing side street operations at the Shellmound Street/Woodfin Hotel/ Marketplace Driveway intersection is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact TRAF-29: The Reduced Main Street alternative could result in vehicle, pedestrian, and bicycle conflicts and inadequate pedestrian and bicycle access.

Mitigation Measure: TRAF-29a: The applicant shall prepare a detailed circulation plan that clearly depicts vehicle, pedestrian, and bicycle access and associated routes prior to obtaining a grading or building permit. The City shall review the plan for adequacy based on applicable pedestrian, bicycle, and parking safety standards prior to issuing a grading or building permit. Additional mitigation has been identified as a result of the Applicant submitting a detailed circulation plan depicting vehicle, pedestrian, and bicycle access.

Findings: The City finds that the above stated mitigation measure addressing potential vehicle, pedestrian, and bicycle conflicts and inadequate pedestrian and bicycle access is appropriate as conditions warrant and reasonable and will substantially lessen the impacts described above. In order to reduce the impact to less than significant impact, it is recommended that Shellmound Street and Christie Avenue be converted to one-way loop. However, the City considers that this recommendation needs to be further studied and be instituted only if actual conditions warrant its implementation. Therefore, the City will adopt a Statement of Overriding Consideration for this impact (See Appendix D)

AIR QUALITY

Impact AIR-1: Demolition and construction period activities could generate significant dust, exhaust, and organic emissions.

Mitigation Measure: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for the project.

Demolition. The following controls shall be implemented during demolition:

- Water during demolition of structures and break-up of pavement to control dust generation;
- Cover all trucks hauling demolition debris from the site; and
- Use dust-proof chutes to load debris into trucks whenever feasible.

Construction. The following controls shall be implemented at all construction sites:

- Water all active construction areas at least twice daily and more often during windy periods; active areas adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers to control dust;
- Cover all trucks hauling soil, sand, and other loose materials;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites;
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites; water sweepers shall vacuum up excess water to avoid runoff-related impacts to water quality;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;
- Apply non-toxic soil stabilizers to inactive construction areas;
- Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.); Limit traffic speeds on unpaved roads to 15 mph; leaving the site; and
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways;

- Replant vegetation in disturbed areas as quickly as possible;
- Install baserock at entryways for all exiting trucks, and wash off the tires or tracks of all trucks and equipment in designated areas before

Findings: The City finds that the above stated mitigation measure to address potential dust, exhaust, and organic emissions during demolition and construction period activities is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

NOISE AND VIBRATION

Impact NOISE-1: Local traffic will generate long-term exterior noise exceeding Normally Acceptable levels on the project site and could expose site users to unacceptable noise levels.

Mitigation Measure: Mechanical ventilation, such as air conditioning systems or passive ventilation, shall be included in the design for all units in the Shellmound building and units of the mixed use 64th & Christie building that face 64th Street or Christie Avenue to ensure that windows can remain closed for prolonged periods of time to meet the interior noise standard and Uniform Building Code Requirements.

Findings: The City finds that the above stated mitigation measure regarding mechanical ventilation is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact NOISE-2: Train activity from tracks adjacent to the proposed Shellmound building site would generate long-term exterior noise exceeding Normally Acceptable levels on the project site.

Mitigation Measure: NOISE-2a: Mitigation Measure Noise-1 shall be implemented. NOISE-2b: Windows with a minimum rating of STC-32 shall be installed for all units within the Shellmound building directly exposed to the railroad tracks at all heights.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact NOISE-3: The proposed project could expose future residents of the Shellmound building to excessive ground-borne vibration levels.

Mitigation Measure: An acoustical engineer shall prepare a detailed ground-borne noise assessment for the proposed project. The assessment shall include an analysis of the vibration isolation provided in the proposed construction design and provide future calculations for the vibration levels on each of the floors to be used for residential dwellings. The assessment shall include recommendations if necessary to reduce vibration levels to 72 VdB or less. Any vibration isolation and reduction design features provided by the acoustical engineer shall be incorporated in the final engineering plans for the project. The assessment shall be submitted and accepted by the City prior to the issuance of building permits for the Shellmound building.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is

appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact NOISE-4: On-site construction activities would potentially result in short-term noise impacts on adjacent residential uses

Mitigation Measure: The project construction contractors shall comply with the following noise reduction measures:

- All heavy construction equipment used on the project site shall be maintained in good operating condition, with all internal combustion, engine-driven equipment equipped with intake and exhaust mufflers that are in good condition.
- All stationary noise-generating equipment shall be located as far away as possible from neighboring property lines, especially residential uses.
- Prohibit and post signs prohibiting unnecessary idling of internal combustion engines.
- Designate a “noise disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (e.g., beginning work too early, bad muffler) and institute reasonable measures warranted to correct the problem. A telephone number for the disturbance coordinator would be conspicuously posted at the construction site.
- Utilize “quiet” models of air compressors and other stationary noise sources where such technology exists.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact NOISE-5: Based on the upper range of predicted construction vibration levels, pile driving on the project site has the potential to generate ground-borne vibration levels in excess of 0.2 inches per second at structures adjacent to and within the site.

Mitigation Measure: Based on the construction vibration damage criteria for specific building categories established by the FTA as shown in Table IV.E-13, the project applicant shall prepare a vibration impact assessment to determine potential vibration impacts to structures located within 75 feet of new construction based on the types of construction activities proposed on the project site. Recommendations shall be made for impacts that exceed the vibration damage criteria for adjacent building types (as indicated in Table IV.E-13) to ensure construction activities would not damage adjacent buildings. All recommendations in the impact assessment shall be incorporated into construction plans for the project.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

HAZARDOUS MATERIALS/PUBLIC HEALTH AND SAFETY

Impact HAZ-1: Exposure of construction workers and the public to existing contamination in soil, soil gas, and/or groundwater could result in adverse health effects.

Mitigation Measure: HAZ-1a: Prior to any excavation or subsurface work in the areas subject to the two Covenants to Restrict Use of Property for the Emeryville Marketplace and the Bay Street Extension, the property owner/developer shall submit to DTSC a site health and safety plan in accordance with the requirements of the covenants. The owner shall address all DTSC requirements in the preparation of the plan. In addition to these requirements, the health and safety plan shall include health and safety procedures for workers to follow during potential contact with dewatered groundwater and exposure to methane gas. The health and safety plan shall be prepared by a qualified environmental professional and approved by DTSC prior to implementation. For areas not within the covenant areas (i.e., Retail Pad 1 and 2, 64th & Christie building), a health and safety plan shall also be prepared, as described above with regulatory agency oversight and implemented during excavation or subsurface work at these locations.

HAZ-1b: A soil management plan shall be developed by the property owner/developer and approved by the City Engineer and DTSC for the proposed project (including the proposed location of the 64th & Christie building). The plan shall be submitted prior to issuance of demolition, grading, or building permits by the City. The plan shall include provisions for management of potentially contaminated excavated soil and dewatered groundwater, requirements for clean imported fill material, inspection of areas for gross contamination prior to backfilling by a qualified environmental professional, and requirements for immediate reporting to DTSC and the City Engineer in the event that previously unidentified contamination is encountered during construction/redevelopment activities. The soil management plan shall also include a contingency plan for sampling and analysis of previously unknown hazardous substances contamination in coordination with, and with oversight from, DTSC (See also Mitigation Measure HYD-2 from the Hydrology and Storm Drainage section). For areas not within the covenant areas (i.e., Retail Pads 1 and 2, and 64th & Christie building), a soil management plan shall also be prepared, as described above, with approval by the City Engineer.

HAZ-1c: The property owner/developer shall satisfy all requirements of the Alameda County Department of Environmental Health to obtain closure for the former leaking underground storage tank located at 6340 Christie Avenue. The requirements shall be satisfied prior to issuance of demolition, grading or building permits by the City for this property. If a deed restriction is required as a condition of closure, the restriction shall be recorded in Alameda County and all conditions of the deed restriction shall be met during and following construction by the property owner/developer.

HAZ-1d: The property owner/developer shall ensure that appropriate design elements are incorporated into the building design for proposed on-site structures to address the potential for methane gas venting (e.g., installation of a vapor barrier, passive soil venting system or active soil venting systems). The design shall comply with California Title 27 Section 20919 et seq, including the requirement that the concentration of methane in facility structures not exceed 25 percent of the lower explosive limit¹ for methane in facility structures (excluding gas control or recovery system components). The design shall be submitted to the City Engineer, Emeryville Fire Department, and DTSC for review. The Emeryville Fire Department, the local enforcement agency for methane, shall provide final approval of the methane mitigation design prior to issuance of building permits and shall inspect the system(s) implemented annually or as otherwise required.

HAZ-1e: All cracks/cap damage in the existing capped areas of the Emeryville Marketplace site shall be sealed at the time of site redevelopment activities by the contractor(s) in accordance with DTSC's recommendations in the five-year review. All existing and areas proposed for capping under the proposed project shall also be maintained by the site owner/developer to prevent exposures to contaminants in soil and groundwater.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions

¹ The Lower Explosive Limit (LEL) is the lowest percent by volume of explosive gases in air that will propagate a flame at 25 degrees Celsius and atmospheric pressure.

required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact HAZ-2: Demolition of structures containing lead-based paint, asbestos-containing building materials, or other hazardous materials could release airborne particles of hazardous materials, which may affect construction workers and the general public.

Mitigation Measure: HAZ-2a: As a condition of approval for a demolition permit for the buildings located at 6340 and 6390 Christie Avenue, a lead-based paint and asbestos survey shall be performed by a qualified environmental professional. Based on the findings of the survey, all loose and peeling lead-based paint and identified asbestos hazards shall be abated by a certified contractor in accordance with local, state, and federal requirements, including the requirements of the Bay Area Air Quality Management District (Regulation 11, Rule 2). The findings of the survey shall be documented by the qualified environmental professional and submitted to the City. **HAZ-2b:** Other hazardous materials and wastes generated during demolition activities, such as fluorescent light tubes and mercury switches, shall be managed and disposed of by the demolition contractor(s) in accordance with applicable universal and hazardous waste regulations. Federal, State and local worker health and safety regulations shall apply to demolition activities, and required worker health and safety procedures shall be incorporated into the contractor's specifications for the project.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact HAZ-3: Use and potential accidental spills of hazardous materials during the construction of the proposed project could result in soil and/or groundwater contamination and adverse health effects to construction workers, the public, and the environment.

Mitigation Measure: HAZ-3a: The Storm Water Pollution Prevention Plan (SWPPP) required for the project (See Mitigation Measure HYD-1 in the Hydrology and Storm Drainage Section) shall include emergency procedures for incidental hazardous materials releases. **HAZ-3b:** Best Management Practices for the project include requirements for hazardous materials storage during construction to minimize the potential for releases to occur (See Mitigation Measure HYD-1 in the Hydrology and Storm Drainage Section). All use, storage, transport, and disposal of hazardous materials during construction activities shall be performed in accordance with existing local, state, and federal hazardous materials regulations. **HAZ-3c:** The Health and Safety plan required under Mitigation Measure HAZ-1b requires the inclusion of an emergency response plan for safe and effective responses to emergencies, including the necessary personal protective equipment and other equipment, and spill containment procedures.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact HAZ-4: The proposed project is identified on a hazardous materials release site database compiled pursuant to Government Code Section 65962.5 and could result in a safety hazard for people residing or working in the area.

Mitigation Measure: See Mitigation Measures HAZ-1a through HAZ-1f, above, for mitigation.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact HAZ-1 (Main Street and Reduced Main Street alternatives): The Mixed Use Building located north of the Marketplace Tower and Public Market would be within the Covenant Area, which does not currently allow residential use because existing contamination may present an unacceptable risk to future residents.

Mitigation Measure: The property owner/developer shall work with the City and DTSC to determine whether contaminants in soil vapor or other media in the area north of the Marketplace Tower and Public Market present an unacceptable risk to future residents. Environmental samples shall be collected and analyzed to determine whether chemicals present in environmental media, including vapors in air, are present in concentrations that would potentially harm future residents. If sample concentrations exceed California Human Health Screening Levels (CHHSLs), risk management measures that would prevent harm to future residents and that are acceptable to the DTSC shall be implemented.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

GEOLOGY, SOILS, AND SEISMICITY

Impact GEO-1: Seismically-induced ground shaking at the project site could result in damage to life and/or property.

Mitigation Measure: GEO-1: Prior to the issuance of any site-specific grading or building permits, a design-level geotechnical investigation shall be prepared and submitted to the City of Emeryville Planning and Building Department for review and confirmation that the proposed development fully complies with the California Building Code (Seismic Zone 4). The report shall determine the project site's geotechnical conditions and address potential seismic hazards such as liquefaction. The report shall identify building techniques appropriate to minimize seismic damage. In addition, the geotechnical investigation shall conform to the California Division of Mines and Geology (CDMG) recommendations presented in the *Guidelines for Evaluating Seismic Hazards in California*, CDMG Special Publication 117. All mitigation measures, design criteria, and specifications set forth in the geotechnical and soils report shall be followed. It is acknowledged that seismic hazards cannot be completely eliminated even with site-specific geotechnical investigation and advanced building practices (as provided in the mitigation measure above). However, exposure to seismic hazards is a generally accepted part of living in the San Francisco Bay Area and therefore the mitigation measure described above would reduce the potential hazards associated with seismic activity to a less-than-significant level

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact GEO-2: Structures or property at the project site could be adversely affected by expansive soils or by settlement of project soils.

Mitigation Measure: In locations underlain by expansive soils and/or non-engineered fill, the designers of building foundations and other improvements (including sidewalks, roads, and underground utilities) shall consider these conditions. The design-level geotechnical investigation, to be prepared by licensed professionals and approved by the Emeryville Planning and Building Department, shall include measures to ensure potential damages related to expansive soils and non-uniformly compacted fill are minimized. Mitigation options may range from removal of the problematic soils and replacement, as needed, with properly conditioned and compacted fill to design and construction of improvements to withstand the forces exerted during the expected shrink-swell cycles and settlements. All mitigation measures, design criteria, and specifications set forth in the geotechnical investigation shall be followed to reduce impacts associated with shrink-swell soils and settlement to a less-than-significant level.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact GEO-3: Differential settlement at the project site could result in damage to project buildings and other improvements.

Mitigation Measure: Prior to issuance of a grading permit, a site-specific grading plan shall be prepared by a licensed professional and submitted to the Emeryville Planning and Building Department for review and approval. The plan shall include specific recommendations for mitigating potential differential settlement associated with Bay Mud, fill placement and areas of different fill thickness.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

Impact GEO-4: Liquefaction at the project site could result in damage to buildings and other improvements.

Mitigation Measure: The Emeryville Planning and Building Department shall approve all final design and engineering plans. Project design and construction shall be in conformance with current best standards for earthquake resistant construction in accordance with the California Building Code (Seismic Zone 4), applicable local codes and in accordance with the generally accepted standard of geotechnical practice for seismic design in Northern California. The design-level geotechnical investigation shall include measures to minimize that potential damage related to liquefaction.

Findings: The City finds that the approved remediation plans for the Project site and existing regulations governing identification of contaminated locations and remediation of those locations and actions required prior to site development are appropriate and reasonable and will substantially lessen or avoid the impacts discussed above, such that they will be mitigated to a less than significant level.

HYDROLOGY AND WATER QUALITY

Impact HYD-1: Construction activities could result in degradation of water quality in the Bay by reducing the quality of storm water runoff.

Mitigation Measure: The project contractor shall comply with the City of Emeryville Municipal Code relating to grading projects and erosion control (Section 6-13.204):

Any person engaged in activities which will or may result in pollutants entering the City storm sewer system shall undertake all practicable measures to reduce such pollutants.

Best Management Practices for New Developments and Redevelopments. Any construction contractor performing work in the City shall endeavor, whenever possible, to provide filter materials at the catchbasin to retain any debris and dirt flowing into the City's storm sewer system. The Director of Public Works may establish controls on the volume and rate of storm water runoff from new developments and redevelopments as may be appropriate to minimize the discharge and transport of pollutants.

In addition, the project proponent shall prepare a SWPPP designed to reduce potential impacts to surface water quality through the construction period of the project. The SWPPP must be maintained on-site and made available to City inspectors and/or RWQCB staff upon request. The SWPPP shall include specific and detailed BMPs designed to mitigate construction-related pollutants. At a minimum, BMPs shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.

BMPs designed to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased if grading is performed during the rainy season as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control that is, keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Entry and egress from the construction site shall be carefully controlled to minimize off-site tracking of sediment. Vehicle and equipment wash-down facilities shall be designed to be accessible and functional during both dry and wet conditions.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact HYD-2: Dewatering effluent may contain contaminants and if not properly managed could cause impacts to construction workers and the environment.

Mitigation Measure: The construction-period SWPPP shall include provisions for the proper management of construction-period dewatering effluent. At minimum, all dewatering effluent shall be contained prior to discharge to allow the sediment to settle out, and filtered, if necessary, to ensure that only clear water is discharged to the storm or sanitary sewer system, as appropriate. In areas of suspected groundwater contamination (i.e., underlain by fill or near sites where chemical releases are known or suspected to have occurred), groundwater shall be analyzed by a State-certified laboratory for the suspected pollutants prior to discharge. Based on the results of the analytical testing, the project proponent shall acquire the appropriate permit(s) prior to discharge of the effluent. Discharge of the

dewatering effluent would require a permit from the RWQCB (for discharge to the storm sewer system or to San Francisco Bay) and/or East Bay Municipal Utility District (EBMUD) (for discharge to the sanitary sewer system).

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact HYD-3: Operation-phase use of the site could result in degradation of water quality in the Bay by reducing the quality of storm water runoff.

Mitigation Measure: HYD-3: The City shall ensure that the proposed project drainage design meets all the requirements of the current Countywide NPDES Permit (NPDES Permit No. CAS0029831). The drainage plan shall include features and operational Best Management Practices to reduce potential impacts to surface water quality associated with operation of the project. These features shall be included in the project drainage plan and final development drawings. Specifically, the final design shall include measures designed to mitigate potential water quality degradation of runoff from all applicable portions of the completed development. In general, “passive,” low-maintenance BMPs (e.g., storm water planters, rain gardens, grassy swales, and porous pavements) are preferred over active filtering or treatment systems. As required by the City of Emeryville’s 2005 *Storm Water Guidelines for Green, Dense Redevelopment*, *Storm Water Quality Solutions: The storm water treatment design consultant shall make a good faith effort to meet the entire treatment requirement using vegetative solutions. If the storm water treatment design consultant concludes that vegetative solutions are not feasible due to site characteristics, building uses or other legitimate reasons, and the City concurs, the City will consider allowing on-site mechanical solutions. In some cases, upon recommendation of the storm water treatment design consultant, a combination of vegetative and mechanical solutions may be allowed. If mechanical solutions are utilized, the mechanism must be approved by the City, and the developer must demonstrate that the mechanical design will remove fine sediments and dissolved metals as well as trash and oil.* An operations and maintenance plan shall be developed and implemented to inspect and maintain BMPs in perpetuity. If paved surfaces within covered parking areas are washed with water, this water shall not be directed to the storm drainage system. This wash water effluent shall either be directed to the sanitary sewer or contained and transported off-site for proper disposal.

The project would not be required to evaluate or mitigate potential impacts associated with hydromodification of downstream creeks because the downstream receiving waters between the site and the Bay are concrete lined and not subject to erosion. The final design team for the project shall review and incorporate as many concepts as practicable from *Start at the Source, Design Guidance Manual for Storm water Quality Protection*² and the California Storm water Quality Association’s *Storm water Best Management Practice Handbook, Development and Redevelopment*, the City of Emeryville 2005 *Storm Water Guidelines for Green, Dense Redevelopment*, and forthcoming Alameda County Clean Water Program (ACCWP) technical guidelines.

The City Public Works Department shall review and approve the drainage plan prior to approval of the grading plan.

² Bay Area Storm water Management Agencies Association, 1999. *Start at the Source, Design Guidance Manual for Storm water Quality Protection*.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Impact CULT-1: The proposed project may result in the destruction of possibly significant archaeological deposits.

Mitigation Measure: CULT-1a: Prior to project construction, a qualified professional archaeologist³ shall prepare a monitoring plan to address potentially significant cultural resources encountered during construction. Preparing the plan may require subsurface examination to determine the presence, nature, extent, and potential significance of archaeological deposits that may be encountered by project activities. At a minimum, the monitoring plan should (1) refine the understanding of the project site's archaeological sensitivity; (2) determine the likelihood that archaeological deposits have retained integrity; (3) identify the types of artifacts and features that may be encountered during project construction; (4) determine during which phases of construction subsurface deposits may be encountered; and (5) provide guidelines for in-field assessment of archaeological deposits identified during monitoring. Based on the information noted above, the monitoring plan should determine the appropriate level of construction monitoring necessary to avoid significant impacts to archaeological resources, and provide guidance for the implementation of such monitoring. CULT-1b: A qualified professional archaeologist shall monitor all ground-disturbing activities that occur at depths within the project area determined to be archaeologically sensitive in the archaeological monitoring plan. Monitoring shall continue until the archaeologist determines that impacts to archaeological deposits are unlikely to occur. In the event that archaeological deposits are identified during monitoring, the monitor must be empowered to redirect all work within 25 feet of the find. Any such archaeological deposits identified during monitoring shall be recorded and, if possible, avoided by project activities. If avoidance is not feasible, as determined by the City after consultation with the project engineer, these deposits shall be evaluated by a qualified archaeologist to determine their eligibility for listing on the California Register. If the deposits are not eligible for the California Register, then no further study or protection is necessary. If the deposits are eligible for the California Register, they shall be avoided by project activities. If avoidance is not feasible, project impacts shall be mitigated in a manner consistent with CEQA Guidelines PRC Section 15126.4 (b)(3)(C) and the recommendations of the evaluating archaeologist. Human remains shall be handled in accordance with Health and Safety Code Section 705055. Following the completion of the archaeological monitoring, a report shall be prepared to document the methods and findings of the monitoring archaeologist. The report shall be submitted to the City, the project applicant, and the Northwest Information Center (NWIC) at Sonoma State University in Rohnert Park, California. CULT-1c: In the event that archaeological deposits are identified during project activities not monitored by an archaeologist, it is recommended that project impacts to such deposits be avoided. If impact avoidance is not feasible, work within 25 feet of the finds shall be redirected and a qualified professional archaeologist shall be contracted to record the find and evaluate its California Register eligibility. If the deposits are not eligible for the California Register, then no further study or protection is necessary. If the deposits are eligible for the California Register, they shall be avoided by project activities. If avoidance is not feasible, project impacts shall be mitigated in a manner consistent with CEQA Guidelines PRC Section 15126.4 (b)(3)(C) and treatment of human remains in accordance

³ "Qualified" is defined as meeting the professional standards established by the Secretary of the Interior. These standards can be found at: <<http://www.cr.nps.gov/local-law/archstnds9.html>>.

with Health and Safety Code Section 70505. Following the completion of the archaeological monitoring, a report shall be prepared to document the methods and findings of the monitoring archaeologist. The report shall be submitted to the City, the project applicant, and the NWIC. Prehistoric materials can include flaked-stone tools (e.g. projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, hand stones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse. Implementation of Mitigation Measures CULT-1a, -1b, and -1c would reduce this impact to less-than-significant level.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact CULT-2: Ground disturbance associated with the proposed project may disturb human remains, including those interred outside of formal cemeteries.

Mitigation Measure: If human remains are encountered, work within 25 feet of the discovery shall be redirected, and the County Coroner shall be notified immediately. At the same time, an archaeologist shall be contacted to assess the situation. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the City, the project applicant, and the NWIC.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact CULT-3: Ground disturbing activities within the proposed project site could adversely impact paleontological resources.

Mitigation Measure: CULT 3a: A qualified paleontologist shall be present during initial project ground-disturbance at or below 5 feet from original ground surface. The paleontologist will then determine if further monitoring, periodic site inspections, or if no further monitoring is necessary. Prior to project ground-disturbing construction, pre-field preparation by a qualified paleontologist shall take into account specific details of project construction plans for the project area, as well as information from available paleontological, geological, and geotechnical studies. Limited subsurface investigations may be appropriate for defining areas of paleontological sensitivity prior to ground disturbance. CULT-3b: A qualified paleontologist shall monitor ground-disturbing activities at and below 5 feet from the original ground surface in accordance with the initial monitoring needs assessment. The monitoring shall continue until the paleontologist determines that impacts to paleontological resources are unlikely to occur.

If paleontological resources are encountered during project activities, all work within 25 feet of the discovery shall be redirected until the paleontological monitor can evaluate the resources and make recommendations. If paleontological deposits are identified, it is recommended that such deposits be avoided by project activities. Paleontological monitors must be empowered to halt construction activities within 25 feet of the discovery to review the possible paleontological material and to protect the resource while it is being evaluated. If avoidance is not feasible, as determined by the City after consultation with the project engineer, adverse effects to such resources shall be mitigated in accordance with the recommendations of a qualified paleontologist. At a minimum, mitigation shall include data recovery and analysis, preparation of a data recovery report or other reports as appropriate, and accessioning fossil material recovered to an accredited paleontological repository, such as the University of California Museum of Paleontology (UCMP). Upon project completion, a report shall be prepared documenting the methods and results of monitoring, and copies of this report shall be submitted to the City, project applicant, and to the repository at which any fossils are accessioned. CULT-3c: In the event that paleontological resources are identified in the soil layer for which paleontological monitoring is *not* recommended, all work within 25 feet of the discovery shall be redirected until a qualified paleontologist has evaluated the discoveries, prepared a fossil locality form documenting the discovery and made recommendations regarding the treatment of the resources. If the paleontological resources are found to be significant, adverse effects to such resources shall be avoided by project activities. If project activities cannot avoid the resources, adverse effects should be mitigated. At a minimum, mitigation shall include data recovery and analysis, preparation of a data recovery report or other reports, as appropriate, and accessioning fossil material recovered to an accredited paleontological repository, such as the University of California Museum of Paleontology (UCMP). Upon completion of project activities, a report that documents the methods and findings of the mitigation shall be prepared and copies submitted to the City, project applicant, and to the repository at which any fossils are accessioned.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

AESTHETICS RESOURCES

Impact AES-1: The proposed project would alter the intrinsic architectural character of the project site and its surroundings.

Mitigation Measure: AES-1: Each of the following four measures shall be incorporated into the final project design:

- The proposed structures shall adequately reference, and be visually compatible with and not detract from the surrounding industrial buildings.
- Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, vertical walls broken up with architectural detailing, protruded and recessed tower elements, stepped-back upper floors to provide appropriate building height transitions to adjacent buildings, and through the use of carefully chosen building materials, texture, and color. Design of building facades shall include sufficient articulation and detail to avoid the appearance of blank walls or box-like forms.
- Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality

- and for their long term durability, and their compatibility with the design motif of surrounding buildings.
- Detailed designs for the public plazas shall be developed. The plaza designs shall emphasize the public nature of the space and pedestrian comfort and sun/shade patterns during mid-day hours throughout the year. The plaza designs shall be sensitively integrated with the streetscape.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact AES-2: The proposed development would provide additional sources of day and nighttime light and glare in Emeryville.

Mitigation Measure: AES-2a: The specific reflective properties of project building materials shall be assessed by the City during review of the Final Development Plans for the proposed project. Final Development Plan review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare. AES-2b: Specific lighting proposals shall be submitted and reviewed as part of each Final Development Plan for each new building on the project site and approved by the City prior to issuance of building permit. This review shall ensure that any outdoor night lighting for the project is downward facing and shielded so as not to create additional nighttime glare and shall conform with light and glare performance standards established by Zoning Ordinance Article 59 and the Maximum Intensity of Light Sources table.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

PUBLIC SERVICES AND UTILITIES

Impact PS-1: This impact is considered significant.

Demolition and construction waste generated by the project could conflict with Measure D requirements.

Mitigation Measure: The project applicant shall recycle 75 percent of the waste materials generated by project construction. The applicant shall submit a pre-construction recycling management plan to the City Public Works Department for review and approval prior to the issuance of a grading permit. Prior to issuance of the Certificate of Occupancy, the project applicant shall post a construction report with weight tags stating where construction materials were recycled, and demonstrating that the 75 percent recycling rate of Measure D has been achieved.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact PS-2: The waste generated by the on-going operation of the project could conflict with Measure D requirements.

Mitigation Measure: The project applicant shall install an internal system designed to increase recycling and composting. The recycling and composting system shall include dedicated chutes for garbage, recycling and green waste (including food scraps). Final design plans shall include areas for the storage and loading of recycling materials and containers in accordance with Emeryville Municipal Code Title 6, Chapter 4, Collection of Solid Waste and Recyclables and Title 6, Chapter 14, Food Service Waste Reduction.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact PS-1 (Reduced Main Street alternative): Implementation of the Reduced Main Street alternative could increase demand for fire and police services, requiring the construction of new facilities.

Mitigation Measure: The Emeryville Police and Fire Departments shall review proposed development plans for the Reduced Main Street alternative to determine whether existing police and fire facilities would be able to accommodate increased demand for emergency services. If existing facilities would be inadequate, the project sponsor shall contribute a pro rata share of the cost to construct new facilities.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact PS-2 (Reduced Main Street alternative): Implementation of the Reduced Main Street alternative would substantially increase demand for water.

Mitigation Measure: A Water Supply Assessment shall be prepared for the Reduced Main Street alternative. If the Water Supply Assessment shows that existing water supplies would be inadequate to serve the proposed alternative, the alternative shall be modified to reduce water demand (e.g., through the reduction of water-intensive commercial or residential uses, water conservation measures, and/or recycling of rain and graywater) such that existing water entitlements would be adequate to serve the site.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact PS-3 (Reduced Main Street alternative): Wastewater conveyance pipes may have inadequate capacity to accommodate additional wastewater flows from the Reduced Main Street alternative.

Mitigation Measure: The applicant shall prepare a sewer capacity study to determine if there is adequate sanitary sewer conveyance capacity to accommodate the proposed alternative, as shown in the utility plan. If it is determined that there is inadequate capacity for additional flows from the Reduced Main Street alternative, either of the following actions shall occur: **PS-3a:** The utility plan shall be designed to convey all sewage flows on the site to the 30-inch TC pipe in the northern portion of the site. If the topography of the site is such that sanitary sewer flows would not be able to gravity feed into the 30-inch TC pipe, a

sewage lift pump shall be included in the utility plan to convey wastewater to the northern basin; or PS-3b: The project applicant shall design and fund its fair share of construction of additional downstream improvements to accommodate the increased flows from the project in the southern system which drains to the EBMUD interceptor via the existing system in Powell Street. If downstream improvements to the existing system in Powell Street are required to accommodate additional flows draining to the south, additional environmental review may be required if construction would occur outside of the existing right-of-way or involve construction beyond the scope of standard construction methods evaluated in this EIR.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

WIND

Impact WIND-1: The proposed massing and shape of the Shellmound building could create accelerated wind areas in roof deck terraces and within the fourth floor pedestrian crossing connection with the Amtrak bridge that could substantially affect pedestrian comfort.

Mitigation Measure: WIND-1a: Final design of the roof deck open space terraces on the Shellmound building shall be heavily landscaped to reduce wind and improve usability and shall incorporate porous materials or structures (e.g., vegetation, hedges, screens, latticework, perforated or expanded metal) which offer superior wind shelter compared to solid surfaces. Outdoor furnishings, such as tables, shall either be either weighted or attached to the deck. **WIND-1b:** Scale model wind tunnel or computerized computational fluid dynamics testing shall be conducted to determine how strong winds will be through the fourth floor breezeway between the Amtrak pedestrian bridge to the west side of the building. If winds through the breezeway exceed 36 mph, the breezeways design shall be altered to reduce wind speeds below this threshold. Alternatively, to avoid testing, the design of the breezeway could be altered with the addition of glazing at the west side opening. Testing or design modifications would reduce this impact to a less-than-significant level.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

Impact WIND-1 (Reduced Main Street alternative): The construction of the Shellmound mixed use and high-rise tower buildings and UA Cinema site could substantially increase ground-level winds.

Mitigation Measure: WIND-1 (Reduced Main Street alternative): Final design of the buildings constructed on the Shellmound and UA Cinema building sites shall be subject to review by a qualified wind consultant. The design review shall evaluate the architect's employment of one or more of the following design guidelines to reduce wind impacts to a less-than-significant level:

- West or southeasterly building faces shall be articulated and modulated through the use of architectural devices such as surface articulation, variation, variation of planes, wall surfaces and heights, as well as the placement of step-backs and other features.

- Utilize properly-located landscaping to mitigate winds. Porous materials (vegetation, hedges, screens, latticework, perforated or expanded metal) offer superior wind shelter compared to a solid surface. Avoid narrow gaps between buildings where westerly or southeasterly winds could be accelerated.
- Avoid “breezeways” or notches at the upwind corners of the building.

Wind tunnel or computerized computational fluid dynamics testing shall be required if a review of the final architectural design of the proposed mid-rise buildings is insufficient to determine whether the buildings would result in adverse wind impacts. Testing shall be used to determine if wind accelerations generated by the structure could reach hazardous levels and to develop design modifications that would reduce impacts to a less-than-significant level.

Findings: The City finds that the above stated mitigation measure is incorporated into the project through the conditions of approval for the Project. The City further finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above, such that they will be mitigated to a less than significant level.

B. FINDINGS ON SIGNIFICANT AND POTENTIALLY SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS OF THE PROJECT AND FACTS IN SUPPORT OF FINDINGS

The Marketplace Redevelopment Project EIR identifies the following significant and potentially significant unavoidable impacts associated with the proposed for the Project. The proposed project would result in twenty one (21) potentially significant and unavoidable impacts, including TRAF-1, TRAF-2, TRAF-3, TRAF-4, TRAF-7, TRAF-8, TRAF-10, TRAF-11, TRAF-12, TRAF-13, TRAF-14, , TRAF-18, TRAF-19, TRAF-20, TRAF-22, TRAF-23, TRAF-24, TRAF-25, TRAF-26, TRAF-28, TRAF -29, AIR-1 (Reduced Main Street alternative), and SHADE-1 (Reduced Main Street alternative).

To the extent these mitigation measures will not mitigate or avoid the twenty three (23) significant impacts on the environment, it is hereby determined that the remaining significant unavoidable adverse impacts are acceptable for the reasons specified in the Statement of Overriding Considerations, below.

The impacts and related mitigation measures identified below are presented in summary form. For a detailed description of impacts and mitigation measures, see the appropriate text in the EIR. The EIR is hereby incorporated into these Findings in its entirety.

A. TRANSPORTATION AND PARKING

Impact TRAF-1: The I-80 EB Ramps/Powell Street intersection currently operates at LOS E during the PM peak hour and Saturday peak hour. Under the Existing Plus Project scenario, the intersection operation would degrade to LOS F during the PM peak hour and delay would increase by 10 seconds. On Saturday, the addition of project traffic would increase delay by 8 seconds. The addition of project traffic would also increase the 95th percentile queue lengths to four approaches that currently exceed or are projected to exceed the available storage capacity.

Mitigation Measures:

TRAF-1a: The following improvements to the I-80 EB Ramps/Powell Street intersection shall be implemented: 1) Reconstruct the off-ramp to provide dual left-turn and dual right-turn lanes. The additional lane should be about 900 feet. 2) Reconstruct the southeast corner of the Powell Street/I-80 Eastbound Ramps intersection improving the curb radii to 40 feet. 3) Relocate the north side of Powell

Street 12 to 14 feet between Christie Avenue and Eastbound I-80 Ramps to align westbound Powell Street through lanes across the intersection with Eastbound I-80 Ramps. This improvement will also allow the widening of the eastbound right-turn lane at the Powell Street/Christie Avenue intersection to 14 feet and construction of a pedestrian median refuge on the west side of the Powell Street/Christie Avenue intersection. This change requires right-of-way along the north side of Powell Street between Christie Avenue and the I-80 Eastbound On-Ramp. This recommendation should be implemented with Mitigation Measure TRAF-2 to provide corridor benefits. These changes must be implemented in a manner that safety is enhanced for Bay Trail crossing for pedestrians and bicyclists and shall be implemented as part of a comprehensive streetscape designs for the area where travel by all modes is optimized.

This impact also occurs in the 2010 and 2030 scenarios and can be attributed to existing traffic in the area, as well as traffic from approved, planned, and potential developments in and around Emeryville. Therefore the City shall update its Traffic Impact Fee Program to include this improvement, and the Project Applicant shall pay their fair share cost of the improvements. Each of the changes to the I-80 EB ramps requires right-of-way acquisition and an encroachment permit from Caltrans to implement. Thus, the impact would remain significant and unavoidable until sufficient right-of-way can be acquired and Caltrans approves an encroachment permit.

TRAF-1b: Implementation of the following mitigation measure will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level.

- The project applicant shall prepare and implement a comprehensive TDM program that includes the following elements to encourage and enhance alternate modes of travel: Transit amenities, including bus pull-outs, transit information and ticket kiosks, and discounted transit passes for employees and residents.
- Carpool/vanpool support, including preferential parking spaces and ride-matching programs.
- Carshare support, including free parking spaces, on-site information and advertising, and discounted rates/long-term contracts.

Bicycle amenities, including bicycle parking racks, pilot bicycle rental program, new bicycle paths, and shower/locker facilities. In addition, the TDM plan should discourage automobile use by incorporating the following elements:

- Residential parking spaces should be unbundled from the units.
- All non-residential parking should be paid parking.
- Monthly parking permits should not be provided for employees.

Provision of car sharing facilities on-site could help reduce auto ownership amongst future residents/tenants of the building and encourage alternative modes for trips generated by the site. The TDM program shall be submitted to City staff for review and acceptance prior to approval of any Final Development Plans.

Findings: This development, in conjunction with other planned/approved developments in the area, would contribute to over capacity conditions at several intersections, including I-80EB Ramps/Powell Street intersection, in the near future. While it is beyond the ability of any one project to mitigate the impacts to the transportation network, measures that aim to (1) improve intersection operation with physical improvements; and (2) reduce dependence on automobile trips, and increase transit, walking and bicycling trips are recommended in mitigation measure TRAF-1a above. In addition, mitigation measure

TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-2: TRAF-2(a): The Powell Street/Christie Avenue intersection would operate at an acceptable service level under the Existing Plus Project scenario. However, vehicle queue spillback affects overall intersection and system operations. The addition of project traffic would exacerbate existing queuing problems, contributing poor operations on three intersection approaches (See Table V.C-11).

Mitigation Measure: The following improvements made to the intersection of Powell/Christie Avenue shall be implemented:

- 1) Reconstruct the westbound approach to provide a second left turn lane. The resulting two left turn lanes should be 250 feet in length. The south side of the Powell Street bridge would need to be widened by about 12 feet to accommodate the second left turn lane.
- 2) Reconstruct the southbound approach to provide a southbound left-turn lane (in addition to the shared left-through lane and a central median). The lane would extend from Powell Street back to Shellmound Way. This change would require widening the west side of Christie Avenue by about 20 feet. This change requires right-of-way along the west side of Christie Avenue.
- 3) Reconstruct the south side of Powell Street, west of the intersection, to provide two dedicated eastbound right turn lanes. The lanes would extend from the Christie Avenue intersection back to the I-80 Eastbound Off-Ramp intersection. This lane requires additional right-of-way of about 12 feet on the south side of Powell Street between Christie Avenue and the I-80 Eastbound Off-Ramp.
- 4) Re-time the Powell/Christie Loop signalized intersections to coordinate the critical movements through the intersection.

These changes shall be implemented as part of a comprehensive streetscape designs for the area where travel by all modes is optimized. These recommendations should be implemented with Mitigation Measure TRAF-1a to provide corridor benefits.

This impact also occurs in the 2010 and 2030 scenarios and can be attributed to existing traffic in the area, as well as traffic from approved, planned, and potential developments in and around Emeryville. Therefore, improvement the City shall update its Traffic Impact Fee Program to include this recommendation, and that the Project Applicant shall pay their fair share cost of the improvements.

TRAF-2b: Mitigation Measure 1b, which requires a TDM Plan, shall also be implemented to further minimize the project's impacts on intersection operations.

Findings: Implementation of mitigation measure TRAF-2a by the City would reduce this impact to a less-than-significant level. However, each of the changes requires right-of-way acquisition to implement. Thus, the impact could remain significant and unavoidable until sufficient right-of-way can be acquired.

Impact TRAF-3: Under the Existing Plus Project scenario, the Powell Street/Hollis Street intersection is projected to degrade from a LOS D to LOS E. The addition of project trips during the weekday PM peak hour would increase overall intersection delay to 56 seconds, a 5-second increase.

Mitigation Measure: Implement Mitigation Measure 1b and protected-permitted signal phasing for the north/south left turn movements. This will require a 5- to 6-foot lane shift for northbound Hollis Street traffic approaching Powell Street and reconstruction of the southwest corner of the intersection to accommodate tractor-trailer trucks making a right-turn from Powell Street to Hollis Street. The lane shift will require right-of-way along the west side of Hollis Street. Implementation of this measure by the City would reduce the project impact to a less-than-significant level.

Findings: This impact can be attributed to traffic from approved, planned, and potential developments in and around Emeryville. Signal phasing can potentially lessen this impact, however, reconstruction and widening of this corner is in conflict with the City's wider goal of creating a road network in the city that is friendly to bicyclists and pedestrians. This impact, therefore, would remain significant and unavoidable.

Impact TRAF-4: The Ashby Avenue/San Pablo Avenue intersection is projected to operate at LOS F with an overall average delay of 81 seconds during the PM peak hour in 2010. The addition of project trips during the weekday PM peak hour would increase overall intersection delay to 90 seconds, a 9 second increase.

Mitigation Measure: To reduce this impact to a less than significant level, the intersection would have to be modified, when traffic conditions warrant, to provide dual northbound left-turn lanes similar to the northbound left-turn lane design on San Pablo Avenue at 40th Street. Construction of this improvement would require elimination of on-street parking along San Pablo Avenue approaching the intersection. Relocation of the bus stop for buses operating along San Pablo Avenue would also be required.

Findings: The applicant shall pay a fee based on its fair share of the project's anticipated growth in traffic to the intersection toward the cost to implement this improvement. The payment shall be made to the City of Emeryville, for the benefit of the City of Berkeley, prior to issuance of the temporary certificate of occupancy for the last building. However, this intersection is located in the City of Berkeley and is also under the jurisdiction of Caltrans, since both Ashby Avenue and San Pablo Avenue are state highways at this intersection. This improvement will occur only with the agreement of City of Berkeley and Caltrans and would be designed such that the impacts to transit, pedestrians and cyclists are minimized. Therefore, the final selection of the appropriate intersection design as well as implementation of the modifications are not within the jurisdiction of the City of Emeryville. Therefore, this impact would be significant and unavoidable.

Impact TRAF-7: The I-80 EB Ramps/Powell Street intersection is projected to operate at LOS F during the PM peak hour and Saturday peak hour in 2010. The addition of project traffic would increase delay by more than 4 seconds during both the PM and Saturday peak hours. The addition of project traffic would also increase the 95th percentile queue lengths for several approaches that currently exceed or are projected to exceed the available storage capacity.

Mitigation Measure: Implement Mitigation Measure TRAF-1a and 1b.

Findings: This development, in conjunction with other planned/approved developments in the area, would contribute to over capacity conditions at several intersections, including I-80EB Ramps/Powell Street intersection, in the near future. While it is beyond the ability of any one project to mitigate the impacts to the transportation network, measures that aim to (1) improve intersection operation with physical improvements; and (2) reduce dependence on automobile trips, and increase transit, walking and bicycling trips are recommended in mitigation measure TRAF-1a above. In addition, mitigation measure

TRAF-1b: will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-8: The Powell Street/Hollis Street intersection is projected to operate at unacceptable LOS E with an overall average delay of 80 seconds during the PM peak hour in 2010. The addition of project trips during the weekday PM peak hour would degrade the intersection to LOS F with an overall intersection delay of 76 seconds, a 6 second increase.

Mitigation Measure: Implement Mitigation Measure TRAF-1a and 1b and 3.

Findings: This development, in conjunction with other planned/approved developments in the area, would contribute to over capacity conditions at several intersections, including I-80EB Ramps/Powell Street intersection, in the near future. While it is beyond the ability of any one project to mitigate the impacts to the transportation network, measures that aim to (1) improve intersection operation with physical improvements; and (2) reduce dependence on automobile trips, and increase transit, walking and bicycling trips are recommended in mitigation measure TRAF-1a above. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

This impact can be attributed to traffic from approved, planned, and potential developments in and around Emeryville. Signal phasing can potentially lessen this impact, however, reconstruction and widening of this corner is in conflict with the City's wider goal of creating a road network in the city that is friendly to bicyclists and pedestrians. Additionally, it should be noted that right-of-way for this improvement is reliant on the acquisition. This impact, therefore, would remain significant and unavoidable.

Impact TRAF-10: The 40th Street/San Pablo Avenue (CA-123) intersection is projected to operate at an unacceptable service level E during the PM and Saturday peak hours in 2010. The addition of project traffic would increase delay by more than 4 seconds during both the PM and Saturday peak hours.

Mitigation Measure: Implement Mitigation Measure TRAF-1a and 1b and the planned improvements to the 40th Street/San Pablo Avenue intersection, including the provision of an exclusive eastbound right turn lane. Install this improvement with a right turn overlap phase and retiming of the signals on the 40th Street and San Pablo Avenue corridors, taking into account BRT operation.

Findings: Implementation of mitigation measure TRAF-10 must be made such that the cyclists are accommodated in the final design. Because San Pablo Avenue is a Caltrans facility, the City cannot assure the implementation of this measure, therefore, the impact may remain significant and unavoidable.

Impact TRAF-11: The Shellmound Way/Christie Avenue intersection is projected to operate at an acceptable service level both without and with the project in 2010. However, the addition of project traffic would result in the westbound left-turn movements, exceeding the available storage length and spilling back to Shellmound Street.

Mitigation Measure: Implement Mitigation Measure TRAF-2a and 1b.

Findings: Implementation of mitigation measure TRAF-2a by the City would reduce this impact to a less-than-significant level. However, each of the changes requires right-of-way acquisition to implement. Thus, the impact could remain significant and unavoidable until sufficient right-of-way can be acquired. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-12: The Shellmound Way/ Shellmound Street intersection is projected to operate at an acceptable service level both without and with the project in 2010. However, the addition of project traffic would result in the 95th percentile eastbound vehicle queues exceeding the available storage, resulting in vehicle queue spillback to Christie Avenue.

Mitigation Measure: Implement Mitigation Measure TRAF-2 and 1b.

Findings: Implementation of mitigation measure TRAF-2a by the City would reduce this impact to a less-than-significant level. However, each of the changes requires right-of-way acquisition to implement. Thus, the impact could remain significant and unavoidable until sufficient right-of-way can be acquired. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-13: The Powell Street/Christie Avenue intersection would operate at an acceptable service level in 2010, both without and with the project. However, vehicle queue spillback would affect overall intersection and system operations. The addition of project traffic would exacerbate existing queuing problems, contributing to poor operations for the southbound through movement, the westbound right-turn movement and the eastbound right-turn movement during the weekday PM and Saturday afternoon peak hours.

Mitigation Measure: Implement Mitigation Measures TRAF-2a and 1b.

Findings: Implementation of mitigation measure TRAF-2a by the City would reduce this impact to a less-than-significant level. However, each of the changes requires right-of-way acquisition to implement. Thus, the impact could remain significant and unavoidable until sufficient right-of-way can be acquired. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-14: The Ashby Avenue/San Pablo Avenue intersection is projected to operate at LOS F with an overall average delay of 128 seconds during the PM peak hour in 2030. The addition of project trips during the weekday PM peak hour would increase overall intersection delay to 135 seconds, a seven second increase.

Mitigation Measure: Implement Mitigation Measures TRAF-4 and 1b.

Findings: The applicant shall pay a fee based on its fair share of the project's anticipated growth in traffic to the intersection toward the cost to implement this improvement. The payment shall be made to the City of Emeryville, for the benefit of the City of Berkeley, prior to issuance of the temporary certificate of occupancy for the last building. However, this intersection is located in the City of Berkeley and is also under the jurisdiction of Caltrans, since both Ashby Avenue and San Pablo Avenue are state highways at this intersection. Therefore, the final selection of the appropriate intersection design, as well as implementation of the modifications, are not within the jurisdiction of the City of Emeryville. Therefore, this impact would be significant and unavoidable. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-16: The 65th Street/Hollis Street intersection is projected to operate at an acceptable service level D with an overall average delay of 40 seconds during the PM peak hour in 2030. The addition of project trips during the weekday PM peak hour would degrade the intersection to LOS E with an overall intersection delay of 59 seconds, a 19 second increase.

Mitigation Measure: Retime this traffic signal to improve traffic flow and minimize delay and queuing.

Findings: This impact can be attributed to traffic from approved, planned, and potential developments in and around Emeryville. Therefore, it is recommended that the City update the Traffic Impact Fee Program to include the recommendation, and that the Project Applicant contribute their fair share to these improvements through the payment of fees. As impact is partially due to potential developments around Emeryville, the impact cannot be fully mitigated and will remain significant and unavoidable.

Impact TRAF-18: The I-80 EB Ramps/Powell Street intersection is projected to operate at LOS F during the PM peak hour and Saturday peak hour in 2030. The addition of project traffic would increase delay by more than 4 seconds during both the PM and Saturday peak hours. The addition of project traffic would also increase the 95th percentile queue lengths for several approaches that currently exceed or are projected to exceed the available storage capacity.

Mitigation Measure: Implement Mitigation Measure TRAF-1a and 1b.

Findings: This development, in conjunction with other planned/approved developments in the area, would contribute to over capacity conditions at several intersections, including I-80EB Ramps/Powell Street intersection, in the near future. While it is beyond the ability of any one project to mitigate the impacts to the transportation network, measures that aim to (1) improve intersection operation with physical improvements; and (2) reduce dependence on automobile trips, and increase transit, walking and bicycling trips are recommended in mitigation measure TRAF-1a above. In addition, mitigation measure TRAF-1b: will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-19: The Powell Street/Hollis Street intersection is projected to operate at LOS F with an overall average delay of 114 seconds during the PM peak hour in 2030. The addition of project trips during the weekday PM peak hour would increase overall intersection delay to 122 seconds, an 8 second increase.

Mitigation Measure: Implement Mitigation Measure 1b and 8.

Findings: Mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

This development, in conjunction with other planned/approved developments in the area, would contribute to over capacity conditions at several intersections, including I-80EB Ramps/Powell Street intersection, in the near future. While it is beyond the ability of any one project to mitigate the impacts to the transportation network, measures that aim to (1) improve intersection operation with physical improvements; and (2) reduce dependence on automobile trips, and increase transit, walking and bicycling trips are recommended in mitigation measure TRAF-1a above. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

This impact can be attributed to traffic from approved, planned, and potential developments in and around Emeryville. Signal phasing can potentially lessen this impact, however, reconstruction and widening of this corner is in conflict with the City's wider goal of creating a road network in the city that is friendly to bicyclists and pedestrians. Additionally, it should be noted that right-of-way for this improvement is reliant on the acquisition. This impact, therefore, would remain significant and unavoidable.

Impact TRAF-20: The 40thStreet/Horton Street intersection is projected to operate at an unacceptable service level F during the PM peak hour in 2030. The addition of project trips during the weekday PM peak hour would increase delay by more than 4 seconds. The addition of project traffic would also increase the 95th percentile queue lengths for several approaches that currently exceed or are projected to exceed the available storage capacity during the weekday PM peak hour.

Mitigation Measure: Change the phasing of the northbound and southbound approaches from split phasing to simultaneous north/south left-turn phasing. Implement with Mitigation Measures TRAF-1a and 1b to provide corridor benefits. Construct an exclusive southbound left-turn lane.

Findings: The City finds modification of the signal phasing is appropriate and reasonable and will substantially lessen the impacts described above. In addition, the implementation of both the improvements to Caltrans' I-80 EB ramps described in TRAF-1a and the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits. In order to reduce the impact to less than significant impact, it is recommended that an exclusive southbound left-turn lane be constructed. However, the City believes that this measure is in conflict with the City's wider goal of creating a road network that is bicycle and pedestrian friendly. This impact, therefore, would remain significant and unavoidable.

Impact TRAF-22: The 40thStreet/Emery Street intersection is projected to operate at an unacceptable service level F during both the PM and Saturday peak hours in 2030. The addition of project trips during the weekday PM and Saturday afternoon peak hours would increase delay by more than 4 seconds. The addition of project traffic would also increase the 95th percentile queue lengths for several approaches that currently exceed or are projected to exceed the available storage capacity during the weekday PM and Saturday afternoon peak hours.

Mitigation Measure: Change the phasing of the northbound and southbound approaches from split phasing to phasing that allows for protected north/south lag/lead left turns with a lagging northbound left turn and a leading southbound left-turn. This lead/lag configuration is needed because these turns cannot be served at the same time since their paths would cross. Implement with Mitigation Measures TRAF-1a and 1b to provide corridor benefits. Construct an exclusive southbound left-turn lane and restripe the northbound approach to an exclusive left-turn lane and a shared through/right turn lane.

Findings: The City finds that the signal changes to the 40th Street/Emery Street intersection is appropriate and reasonable and will substantially lessen impacts described above. In addition, the implementation of both the improvements to Caltrans' I-80 EB ramps described in TRAF-1a and the Transportation Management Plan required in TRAF-1b will provide additional corridor benefits. In order to reduce the impact to less than significant impact, construction of an exclusive southbound left-turn lane and restriping of the northbound approach to provide an exclusive left-turn lane and a shared through/right turn lane is recommended. However, the City believes that this measure is in conflict with the City's wider goal of creating a road network that is bicycle and pedestrian friendly. This impact, therefore, would remain significant and unavoidable.

Impact TRAF-23: The 40th Street/San Pablo Avenue (CA-123) intersection is projected to operate at an unacceptable service level F during the PM and Saturday peak hours in 2030. The addition of project traffic would increase delay by more than 4 seconds during both the PM and Saturday peak hours.

Mitigation Measure: Implement Mitigation Measure TRAF-1b and 10.

Findings: Mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

In addition, as San Pablo Avenue is a Caltrans facility, the City cannot assure the implementation of this measure, the impact may remain significant and unavoidable.

Impact TRAF-24: The Mandela Parkway/Horton Street intersection is projected to operate at an unacceptable service level F during both the PM and Saturday peak hours in 2030. The addition of project trips during the weekday PM and Saturday afternoon peak hours would increase delay by more than 4 seconds.

Mitigation Measure: Install a traffic signal and construct an exclusive southbound right-turn lane with overlap phasing. Implementation of this measure would reduce the project impact to a less-than-significant level. Implement with Mitigation Measures TRAF-1a and 1b to provide corridor benefits.

Findings: This impact can be attributed to traffic from approved, planned, and potential developments in and around Emeryville. Therefore, it is recommended that the City update the Traffic Impact Fee Program to include the recommendation, and that the Project Applicant contribute their fair share to these improvements through the payment of fees. Additionally, it should be noted that right-of-way for this improvement is reliant on the acquisition of the adjacent parcels. The impact would remain significant and unavoidable.

Impact TRAF-25: The Shellmound Way/Christie Avenue intersection is projected to operate at an acceptable service level both without and with the project in 2030. However, the addition of project traffic would result in the westbound left-turn movements exceeding the available storage length and spilling back to Shellmound Street during the Saturday peak hour.

Mitigation Measure: Implement Mitigation Measure TRAF-1b and 2.

Findings: Implementation of mitigation measure TRAF-2a by the City would reduce this impact to a less-than-significant level. However, each of the changes requires right-of-way acquisition to implement. Thus, the impact could remain significant and unavoidable until sufficient right-of-way can be acquired. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-26: The Powell Street/Christie Avenue intersection would operate at an acceptable service level in 2030, both without and with the project. However, the addition of project traffic would exacerbate existing queuing problems, contributing to poor operations on some intersection approaches.

Mitigation Measure: Implement Mitigation Measures TRAF-1b and 2.

Findings: Implementation of mitigation measure TRAF-2a by the City would reduce this impact to a less-than-significant level. However, each of the changes requires right-of-way acquisition to implement. Thus, the impact could remain significant and unavoidable until sufficient right-of-way can be acquired. In addition, mitigation measure TRAF-1b will help minimize the project's impacts on intersection operation; however as it is difficult to quantify the effects of TDM measures implementation of this measure alone would not reduce this impact to a less-than-significant level. Therefore, this impact is significant and unavoidable.

Impact TRAF-28: Vehicle queues at the pedestrian crossing are expected to increase as pedestrian activity increases around the project site. This queuing would contribute to deficient operations at the Shellmound Street/Woodfin Hotel/Marketplace Driveway and the Shellmound Street/Marketplace Driveway/Shellmound Garage driveway.

Mitigation Measure: Install a pedestrian signal at the pedestrian crossing on Shellmound Street. Through design treatments, such as sidewalk railings and landscaping, consolidate pedestrian activity from the Shellmound Street/Woodfin Hotel/Marketplace Driveway and the Shellmound Street/Marketplace Driveway/Shellmound Garage driveway to the pedestrian crossing. The pedestrian signal shall be interconnected and coordinated with the signal at the Shellmound Street/Shellmound Way intersection and the Shellmound Street/ Marketplace Driveway/ Shellmound Garage intersection. Each of these improvements to be implemented by the applicant shall be detailed in the Final Development Plans and approved prior to issuance of building permit. The Final EIR notes that the Shellmound Street corridor from Shellmound Way through the Marketplace Driveway would operate better in the mitigated scenario than the unmitigated scenario even though vehicle queues would periodically spill back through the corridor, resulting in a significant and unavoidable queuing impact on the Shellmound Street corridor.

Findings: The installation of a pedestrian signal would improve pedestrian safety across Shellmound Street as traffic volumes increase through the corridor, reducing the pedestrian impact to a less-than-significant level. The City finds that this mitigation measure is appropriate and reasonable and will substantially lessen or avoid the impacts described above and improve pedestrian experience. However, there would be vehicle queues resulting in an impact that is significant and unavoidable.

Impact TRAF-29: The Reduced Main Street alternative could result in vehicle, pedestrian, and bicycle conflicts and inadequate pedestrian and bicycle access.

Mitigation Measure: TRAF-29b. Prior to completion of Phase IIA (Option 1), convert Shellmound Street to a one-way northbound operation between Shellmound Way and 65th Street. The two northbound lanes would transition to a single lane north of the 65th Street intersection. With this conversion, the roadway cross section should be designed for multi-modal use including:

- Bus transit only lane
- Bicycle lane
- Two mixed flow automobile lanes
- On-street parking

Findings: In order to reduce the impact to less than significant impact, it is recommended that Christie Avenue be converted to one-way loop. However, the City considers that this recommendation needs to be further studied and be instituted only if actual conditions warrant its implementation. Therefore, this impact will remain significant and unavoidable.

AIR QUALITY

Impact AIR-1: AIR-1 (Reduced Main Street alternative): Implementation of the Reduced Main Street alternative would result in regional emissions that exceed the BAAQMD standards for ozone precursor emissions.

Mitigation Measure: AIR-1 (Reduced Main Street alternative): The *BAAQMD CEQA Guidelines* document identifies potential mitigation measures for various types of projects. The following are considered to be feasible and effective in further reducing vehicle trip generation and resulting emissions from the project. These measures shall be implemented at the project site:

- Provide transit facilities (e.g., bus bulbs/turnouts, benches, shelters).
- Provide bicycle lanes and/or paths, connected to community-wide network.
- Provide sidewalks and/or paths, connected to adjacent land uses, transit stops, and/or community-wide network.
- Provide secure and conveniently located bicycle storage.
- Implement feasible transportation demand management (TDM) measures including a ride-matching program, coordination with regional ridesharing organizations and provision of transit information.

Findings: Implementation of an aggressive trip reduction program with the appropriate incentives for non-auto travel would reduce impacts of the alternative by approximately 10 to 15 percent. Even with this reduction, ozone precursor emissions would still exceed the significance thresholds. As a result, the Reduced Main Street alternative would have a greater impact on regional air quality impacts than the proposed project, and the impact would remain significant and unavoidable after implementation of available mitigation measures.

SHADE AND SHADOW

Impact SHADE-1 (Reduced Alternative): The Reduced Main Street alternative would create substantial shadow coverage over public spaces throughout the site.

Mitigation Measure: No mitigation measure is available to reduce this impact to a less-than-significant level.

Findings: Significant shading is primarily limited to limited time periods at the shortest days of the year. However, because there are no available mitigation measures, the impact would remain significant and unavoidable.