GATEWAY COMMUNITY DEVELOPMENT PROJECT

Draft Environmental Impact Report
SCH No. 2005112128

Prepared for:
City of Oakland

August 2007

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COMBINED NOTICE OF RELEASE AND AVAILABILITY OF THE DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC HEARING ON THE GATEWAY COMMUNITY DEVELOPMENT PROJECT

PROJECT TITLE: Gateway Community Development Project

CASE NO.: GP06-113; RZ06-114; DA06-547; PUD07-344; ER05-001

PROJECT SPONSOR: Pacific Thomas Capital

PROJECT LOCATION: The approximately 9.7-acre project site is located along the south side of East 12th Street, roughly between 26th Avenue in the west and Derby Avenue in the east in the City of Oakland, Alameda County, California (Assessor's Parcel Numbers 25-693-3-3, 25-693-4, 25-693-5, 25-693-7-2, 25-693-8, 25-697-2, 25-697-3-6, 25-697-7-6, 25-697-7-7, 25-701-6-4, and 25-701-11).

DESCRIPTION OF PROJECT: The project involves the construction of up to 810 new residential units, approximately 25,950 square feet of commercial space, and approximately 160,000 square feet of open space. Development would occur primarily in six development sites containing a total of four multifamily buildings measuring seven to 12 stories tall, two residential towers measuring 15 and 16 stories tall, and a series of three-story townhomes. All existing uses on the site, including a self-storage facility, a Caltrans maintenance facility, and various commercial buildings, would be removed by the project.

The project sponsor seeks to (1) amend the General Plan land use designations for the site from Business Mix, Mixed Housing Type Residential, and Regional Commercial, to Community Commercial; (2) make corresponding amendments to the Coliseum Area Redevelopment Plan; (3) rezone the site from the M-30 General Industrial Zone to the C-45 Community Shopping Commercial Zone and S-4 Design Review Combining Zone; and (4) enter into a Development Agreement with the City of Oakland and a Disposition and Development Agreement with the Oakland Redevelopment Agency. In addition, the project sponsor seeks various development-related permits/approvals including a Planned Unit Development (PUD) permit**.**

ENVIRONMENTAL REVIEW: A Draft Environmental Impact Report (DEIR) has been prepared for the project pursuant to the requirements of the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Section 21000 *et. seq.* The DEIR analyzes potentially significant environmental impacts in the following environmental categories: Transportation; Air Quality; Noise; Hazardous Materials; Utilities and Service Systems; Hydrology and Water Quality; Biological Resources; and Cultural Resources. The DEIR identifies significant unavoidable environmental impacts related to Transportation. The project site has been identified on the Cortese List of Hazardous Waste and Substance Sites as of the date of this Notice. Copies of the DEIR are available for review or distribution to interested parties at no charge at the Community and Economic Development Agency, Planning and Zoning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m.

PUBLIC HEARING: The City Planning Commission will conduct a public hearing on the DEIR and the project on Wednesday, September 5, 2007, at 6:30 p.m. in Hearing Room 1, City Hall, 1 Frank H. Ogawa Plaza.

The City of Oakland is hereby releasing this DEIR, finding it to be accurate and complete and ready for public review. Members of the public are invited to comment on the DEIR and the project. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Comments on the DEIR should focus on the sufficiency of the EIR in discussing possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Comments may be made at the public hearing described above or in writing. Please address all written comments to Darin Ranelletti, Planner III, City of Oakland, Community and Economic Development Agency, Planning and Zoning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; (510) 238-6538 (fax); or via e-mail to dranelletti@oaklandnet.com. **Comments must be received no later than 4:00 p.m. on September 24, 2007.** Please reference the case number indicated at the beginning of this Notice. If you challenge the environmental document or project in court, you may be limited to raising only those issues raised at the Planning Commission public hearing described above, or in written correspondence received by the Community and Economic Development Agency on or prior to 4:00 p.m. on September 24, 2007. After all comments are received, a Final EIR will be prepared and the Planning Commission will consider certification of the Final EIR and render a decision/make a recommendation on the project at a later meeting date to be scheduled. For further information, please contact the case planner, Darin Ranelletti, at (510) 238-3663 or via e-mail at dranelletti@oaklandnet.com.

CLAUDIA CAPPIO
Development Director & Environmental Review Officer

Date: August 10, 2007

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CHAPTER I
Introduction

A. Project Sponsor and the Project

Pacific Thomas Capital has submitted an environmental review application to the City of Oakland for the Gateway Community Development Project, (referred to throughout this document as "proposed project" or "project"), which would incrementally demolish nearly 103,000 square feet of existing development and construct a new residential and commercial mixed use project of up to 810 residential units and approximately 26,000 square feet of commercial space. Development would occur within the six primary buildings and a series of townhomes on approximately 9.7 acres. Construction would take place in six phases, with the six development sites being developed over a period of 15 to 20 years.

Pacific Thomas Capital, a project sponsor and applicant of the proposed project, is generally referred to throughout this document as "project sponsor" or "project applicant." The approximately 9.7-acre project site consists of several contiguous properties along the south side of East 12th Street, north of the Union Pacific railroad tracks, between approximately 26th Avenue and Derby Avenue. [1] The California Department of Transportation (Caltrans) currently controls approximately 1.8 acres in the southeast corner of the project site, and nearly 0.5 acres at the northeast corner of the site is privately owned and not yet acquired by the project sponsor. The Oakland Redevelopment Agency is working with the project sponsor to acquire the Caltrans portion of the project site.

B. Environmental Review

Subsequent to receiving and reviewing the project sponsor's application for environmental review, the City determined that preparation of an Environmental Impact Report (EIR) was warranted. The City also decided at the outset to study all potential impacts associated with the project and therefore did not narrow the scope of environmental topics to be analyzed in the EIR through preparation of an Initial Study for the project. This EIR addresses each environmental topic for which the project could result in a physical environmental effect.

Consistent with the California Environmental Quality Act (Public Resources Code Section 21000, et seq. and Section 15000, et seq.) and the State CEQA Guidelines (California Code of Regulations) promulgated thereunder (together, "CEQA"), this EIR is a public information

[1] Following City of Oakland's convention, East 12th Street and International Boulevard and parallel streets run east-west, and 29th Avenue and Fruitvale Avenue run north-south.

document prepared for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the proposed project, to evaluate and recommend mitigation measures that would substantially lessen or eliminate significant environmental adverse impacts, and to examine a range of feasible alternatives to the project. The information contained in the EIR is subject to review and consideration by the City prior to a decision to approve, reject, or modify the proposed project, and any other responsible agency.

On November 25, 2005, the City issued a Notice of Preparation (NOP) to governmental agencies, organizations, and persons interested in the project, previously referred to as "The Gateway Project." The NOP is included in this Draft EIR as **Appendix A**. The NOP requested that agencies with regulatory authority over any aspect of the project describe that authority and identify the relevant environmental issues that should be addressed in the EIR. Interested members of the public were also invited to comment. This Draft EIR addresses those responses to the NOP that involved environmental issues associated with the project site and proposed project. Comment letters received in response to the NOP are provided in **Appendix B** to this EIR. Please refer to the notice provided in the front of this document for specific locations or contact information.

The Draft EIR is available for public review for the period identified on the notice provided in the front of this document. During this time, written comments on the Draft EIR may be submitted to the City of Oakland Community and Economic Development Agency, Planning Division, at the address indicated on the notice. Oral comments may be submitted at the public hearing on the Draft EIR, which shall be held as identified on the notice provided in the front of this document. Responses to all comments received on the environmental analysis in the Draft EIR and submitted within the specified review period will be prepared and included in the Response to Comments / Final EIR.

C. Organization of the Draft EIR

Following this **Introduction** chapter, this Draft EIR is organized as follows:

The **Summary** (Chapter II) contains an executive summary of the proposed project and allows the reader to easily reference the analysis of the environmental effects, proposed mitigation measures, and standard conditions of approval, and residual environmental impacts after mitigation, if any. **Table II-1**, Summary of Impacts, Mitigation Measures, Standard Conditions and Residual Impacts, is provided at the end of Chapter II as a reader-friendly reference. Chapter II also summarizes the alternatives to the project analyzed in the EIR to potentially reduce or avoid significant effects of the project. (The detailed impact analysis of the project and the project alternatives are contained in Chapters IV and V of the document, respectively.)

The **Project Description** (Chapter III) describes the project location, the project characteristics, the objectives of the project, the anticipated development phasing, a list of the City's required project approvals, and other agencies that must consider aspects of the project.

Environmental Setting, Impacts, and Mitigation Measures (Chapter IV) contains a discussion of the setting (existing physical conditions and regulatory framework), the environmental impacts (including cumulative impacts), both adverse and non-adverse, that could result from the project, and the mitigation measures or standard conditions of approval that would reduce or eliminate those impacts which are identified as adverse.

Alternatives (Chapter V) evaluates a range of alternatives to the proposed project and identifies an environmentally superior alternative.

Impact Overview and Growth-Inducing Impacts (Chapter VI) summarizes the potentially significant and unavoidable impacts and cumulative impacts of the proposed project (identified throughout Chapter IV) and describes the project's potential for inducing growth.

Report Preparation (Chapter VII) identifies the authors of the EIR. Persons and documents consulted during preparation of the EIR are listed at the end of each analysis section in Chapter IV.

Appendices to the EIR are provided at the end of this document and include the NOP as well as certain supporting background documents and technical reports used for the impact analyses for specific topics. All reference documents used to prepare the EIR analysis are listed at the end of each analysis section in Chapter IV (Environmental Setting, Impacts, and Mitigation Measures) and are available for review by the public at the City of Oakland Community and Economic Development Agency, Planning and Zoning Division, under reference Case Number ER05-001, located at 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California, 94612.

CHAPTER II
Summary

A. Project Description

Project Characteristics

The project sponsor, Pacific Thomas Capital proposes to build a phased residential and commercial mixed-use project on the approximately 9.7-acre site described above. The project would consist of up to 810 residential units, approximately 25,950 square feet of ground-floor commercial space that is anticipated to be neighborhood retail or project-serving retail use, and approximately 160,000 square feet of open space (including an 8,000 square feet of publicly-accessible open space and children's park onsite). Development would occur primarily in six new structures: four multifamily buildings (467 units), two residential towers (300 units), and a series of townhomes (43 units). The new buildings would range in height from approximately three stories to sixteen stories.

The multifamily buildings on Sites II through IV would each contain ground-floor, street-facing commercial space (approximately 2,900 square feet in Sites II and III; 7,110 square feet in Site IV at the southwest corner of 29th Avenue and East 12th Street). The residential tower on Site V would also include 13,040 square feet of ground-floor, street-facing commercial space. Also proposed is an approximately 5,000 square-foot education center as part of the ground-floor space in Site IV, and approximately 3,470 square feet for project leasing and management functions on the ground floor on Sites V and VI.

The project would provide approximately 1,121 total parking spaces for the residential (1,056 spaces) and commercial (65 spaces) uses and would be located on the first two to three levels of each residential building. The ground-floor parking level would be partially submerged (about one-half story) along the southern edge of the site. Vehicles would access and egress the project site and all parking levels from new driveways off East 12th Street, 29th Avenue, and Derby Avenue.

Union Pacific railroad tracks exist along the southern border of the project site, and the elevated BART tracks run within the median of East 12th Street, and eastbound East 12th Street is the site's northern border. The site is approximately three blocks west of the Fruitvale BART Station and four blocks north of I-880.

The project would be developed in phases and involve the incremental demolition of all existing buildings, which include a self-storage facility (owned by the project sponsor and operated by its

affiliate), commercial buildings (vacant and occupied), and a Caltrans South Oakland Maintenance Facility. Development would occur in six phases over a period of approximately 15 to 20 years. The project sponsor proposes to allow each development site to be fully constructed and occupied before initiating construction on another; however, the overall project time schedule for development would be set forth in a Development Agreement between the project sponsor and the City. Development sites may or may not be developed in numerical order, depending on market conditions. The analysis in this EIR assumes that the project will be constructed and fully occupied at year 2025.

The project sponsor has requested approval of a Preliminary Development Plan (PDP) for the portion of the project site that it controls. However, this EIR analyzes development of the entire project site, including portions that the project sponsor does not currently control.

General Plan and Zoning

The project requires approval of a General Plan Amendment and Rezoning to allow the land uses and residential densities proposed by the project. The requested General Plan Amendment would change the existing General Plan land use classifications on the site - *Business Mix* and *Mixed Housing Type Residential*, which preclude or limit high-density residential development, and *Regional Commercial* - to the *Community Commercial* land use classification which would allow the proposed uses and residential densities proposed by the project. The project would also require amendment to the *Coliseum Area Redevelopment Plan* to accommodate the proposed uses and residential densities. The requested Rezoning would change the project site's existing M-30 General Industrial Zone, which prohibits residential use, to the C-45 Community Shopping Commercial Zone, which allows the project's proposed high-density residential uses and commercial uses as proposed for the project, and the S-4 Design Review Combining Zone, which establishes procedures for the design review of new and altered structures.

B. Environmental Impacts, Mitigation Measures and Conditions

The potential environmental effects of the proposed project are summarized in **Table II-1** at the end of this chapter. This table lists impacts and mitigation measures in four categories:

- **Significant and Unavoidable** - These environmental impacts are significant even after implementation of mitigation measures and/or standard conditions of approval, or no feasible mitigation measure was identified. These also include impacts for which a feasible mitigation measure is identified that would reduce the impact to a less-than-significant level, but the approval and/or implementation of the mitigation is not within the City of Oakland's or the project sponsor's sole control. These impacts are presented in Section A of **Table II-1**.

- **Significant but Reduced to Less than Significant –** These environmental impacts are significant but reduced to less than significant after implementation of mitigation measures and/or standard conditions of approval. These impacts are presented in Section B of **Table II-1**. The EIR identifies City of Oakland standard conditions of approval that apply

to a number of less-than-significant impacts, and these impacts are also presented in Section B of **Table II-1**.

- **Less than Significant, Beneficial or No Impact –** These environmental impacts are less than significant, would result in a beneficial effect, or would have no noticeable adverse effect. These impacts are presented in Section C of **Table II-1**.

- **Recommendations Identified for Non-CEQA Topics –** The EIR identifies recommendations that address effects related to the project but that do not address environmental impacts addressed under CEQA. These recommendations are presented in Section D of **Table II-1**.

For each impact, **Table II-2** includes the complete language of the mitigation measures and/or standard conditions of approval identified in the impact analysis of this Draft EIR (Chapter IV, Environmental Setting, Impacts, and Mitigation Measures). The table also indicates the level of significance after implementation of mitigation measures or standard conditions. A complete discussion of each impact and associated mitigation measure or standard condition is provided in Chapter IV.

C. Alternatives

Pursuant to Section 15126.6 of the CEQA Guidelines, the following alternatives were selected for comparison to the proposed project to assess which would attain most of the basic objectives of the project and avoid or substantially lessen one or more significant effects of the project:

Alternative 1a: **No Project / Continuation of Recent/Existing Uses and Buildings** - Pursuant to Section 15126.6[e]) of the CEQA Guidelines, Alternative 1a assumes all existing land uses on the site would remain (or be replaced with similar uses) on the site, thus the site would continue to be used for industrial and commercial activities. Even as new tenants might occupy the site, existing buildings would not change substantially through additions, demolitions, or other alterations, particularly changes that would result in larger facilities. No General Plan Amendment or Rezoning would occur.

Alternative 1b: **Redevelopment Consistent with General Plan** - Alternative 1b is included in the EIR to provide a comparison of the proposed project to an alternative that could reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans (CEQA 15126.6[3][a]). The site would be redeveloped in accordance with the three existing General Plan land use classifications. No General Plan Amendment would be required. This alternative would develop up to 390 residential units, approximately 23,000 square feet of ground-floor commercial/retail use, a 5,000 square-foot education space, and approximately 40,000 square feet of light industrial use.

Alternative 2: **Partial Site / Development Occurs Only on Portion of the Site Controlled by the Project Sponsor** - Alternative 2 is included in the EIR to compare the proposed project to a scenario of similar, but less overall development. Development of the project would occur only on property that the project sponsor controls – all of the site west of 29th Avenue and a parcel of vacant

land that extends east-west through the middle of the portion of the site east of 29th Avenue. Development west of 29th Avenue would be the same as proposed by the project, and development east of 29th Avenue would be reduced to high-rise residential condominium towers with 296 units and 4 three-story townhomes, and would provide nearly 8,110 more total square feet of commercial space than the proposed project. A General Plan Amendment and Rezoning would occur, as with the project.

Alternative 3: **Light Industrial / Live Work** – Alternative 3 would redevelop the project site with approximately 145,000 square feet of light industrial uses and 18 new joint living and working units. While this alternative may effectively reduce or avoid certain environmental effects identified with the proposed project, the City has included it in this Draft EIR primarily to respond to the City's current consideration of industrial land use policy and the conversion of industrial land to residential uses.

Environmentally Superior Alternative

The Light Industrial / Live Work Alternative (Alternative 3) is identified as the Environmentally Superior Alternative because it would avoid or reduce to the greatest extent more of the potentially significant impacts identified for the project and each of the other alternatives. Specifically, Alternative 3 would avoid each of the significant and unavoidable traffic impacts identified for the project.

TABLE II-1
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
A. Significant and Unavoidable After Implementation of Mitigation Measures or Standard Conditions		
C. Transportation, Circulation, and Parking		
Impact TRANS-2a: (Baseline plus Project Conditions) The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the *East 9th Street at I-880 Northbound Off-Ramp intersection* during both peak hours. (2010 plus Project and 2025 Cumulative, also.)	**Mitigation Measure TRANS-2a**: Signalize the East 9th Street at I-880 Northbound Off-Ramp intersection. The signal should be built to current Caltrans standards such as full actuation and count-down pedestrian heads. The project sponsor shall fully fund the installation of a traffic signal at the East 9th Street at I-880 Northbound Off-Ramp intersection. However, the project sponsor would be subject to reimbursement from future projects which would also add traffic to this intersection, due to the fact that this intersection fails in the Baseline Conditions. After implementation of this measure, the intersection would operate at an acceptable LOS B during both peak hours. The implementation of Mitigation Measure TRANS-2a would not lead to any adverse impacts. No other feasible improvements are available at this intersection that would mitigate the project's impact, such as widening or reconfiguration. Widening would not be possible due to physical constraints. Reconfiguring the intersection from all-way stop control to two-way stop control would cause substantial increases in delay and queuing at the remaining stop-controlled approaches.	Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure C.2a (changes to the freeway off-ramps) without the approval of Caltrans, the project impact is considered **Significant and Unavoidable.**
Impact TRANS 3b: (2010 plus Project) The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at *the East 9th Street at I-880 Northbound Off-Ramp intersection* during both peak hours. (2025 Cumulative, also.)	**Mitigation Measure TRANS-3b:** The project sponsor shall implement **Mitigation Measure TRANS-2a.**	Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure TRANS-.2a (changes to the freeway off-ramps) without the approval of Caltrans, the project impact is considered **Significant and Unavoidable**.
Impact TRANS-4c: (2025 Cumulative): The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at *the East 9th Street at I-880 Northbound Off-Ramp intersection* during both peak hours. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth.	**Mitigation Measure TRANS-4c**: The project shall implement **Mitigation Measure TRANS-2a.**	Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure TRANS-2a (changes to the freeway off-ramps) without the approval of Caltrans, the project impact is considered **Significant and Unavoidable**.
Impact TRANS-4d: (2025 Cumulative): *The Clement Avenue at Park Street* intersection would operate at LOS E with and without the addition of project traffic. However, the addition of	**Mitigation Measure TRANS-4d:** Optimize the traffic signal at the intersection of Clement Avenue at Park Street. Optimization of traffic signal shall include determination of allocation of green	Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
project traffic causes the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria.	time for each intersection approach in proportion with the relative traffic volumes on those approaches. The signal should be upgraded to current city standards such as full actuation and count-down pedestrian heads. The project sponsor shall contribute its fair-share toward the cost of optimization of the traffic signals at the intersection of Clement Avenue at Park Street. The project sponsor's fair share would be the project's contribution to cumulative growth, which is 5.4 percent. After implementation of this measure, the intersection would operate at an acceptable LOS D during the p.m. peak hour.	Measure TRANS-4d without the approval of the City of Alameda, the project impact is considered **Significant and Unavoidable**.
Impact TRANS-4e: (2025 Cumulative): The Central Avenue at Park Street intersection would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour with and without the addition of project traffic. During the a.m. peak hour, the addition of project traffic would not cause the average delay to increase by over four seconds. However, in the p.m. peak hour, the addition of project traffic would cause the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. Thus, the project would create a potentially significant impact at this intersection according to the City of Alameda significance criteria.	**Mitigation Measure TRANS-4e:** None identified.	Less than Significant; however, the p.m. peak hour left-turn restriction at the intersection is not currently being observed by all motorists. The p.m. peak hour left-turn restriction at the intersection is required to maintain acceptable levels of service. If the p.m. peak hour left-turn restriction is observed, average delay would be reduced substantially, the intersection would operate at LOS D, and no project impact would occur. No other feasible improvements are available at this intersection that would mitigate the project's impact, such as reconfiguring or widening other intersection approaches. Since the p.m. peak hour left-turn restriction is not being observed by all motorists, the project impact is considered **Significant and Unavoidable**.

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
B. Significant but Reduced to Less than Significant After Implementation of Mitigation Measures or Standard Conditions		
B. Visual Quality and Shadow		
Impact AES-3: The proposed project would create a new source light or glare, but would not adversely affect day or nighttime views in the area.	*Impact is* Less than Significant*, however, the following Standard Condition is identified although it is not required to reduced a significant impact:* **Standard Condition AES-3:** The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. All lighting shall be architecturally integrated into the site.	Remains Less than Significant
C. Transportation, Circulation, and Parking		
Impact TRANS-3a: (2010 plus Project) The addition of project traffic would cause the level of service to deteriorate from LOS D to LOS E at the *East 7th Street at Kennedy Street* intersection during the p.m. peak hour. (2025 Cumulative, also, See Significant and Unavoidable.)	**Mitigation Measure TRANS-3a:** Optimize the traffic signal at the intersection of East 7th Street at Kennedy Street. Optimization of traffic signal shall include determination of allocation of green time for each intersection approach in proportion with the relative traffic volumes on those approaches. The signal should be upgraded to current city standards such as full actuation and count-down pedestrian heads. The project sponsor would be fully responsible for the cost of optimization of the traffic signals, as well as the cost of upgrading the signals to current City standards, at the intersection of East 7th Street at Kennedy Street. However, the project sponsor may be subject to reimbursement from future projects which would also add traffic to this intersection for all but sponsor's fair share, or as otherwise agreed upon. After implementation of this measure, the intersection would operate at an acceptable LOS B during the p.m. peak hour.	Less than Significant
Impact TRANS-4a: (2025 Cumulative) The addition of project traffic would cause the level of service to deteriorate from LOS D to LOS E at the East 12th Street at 29th Avenue intersection during the p.m. peak hour. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth.	**Mitigation Measure TRANS-4a:** Widen and reconfigure the northbound approach to the East 12th Street at 29th Avenue intersection to include a left-turn lane, through lane, and a right-turn lane. Adjust signal phasing to protect northbound left turns. The signal should be upgraded to current city standards such as full actuation and count-down pedestrian heads. Although these adjustments would not fully mitigate the project's contribution to cumulative growth, it must be implemented to improve average	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	delay per vehicle, and reduce delay for critical movements. The project sponsor would be fully responsible for the cost of widening and signal improvement for the northbound approach to the intersection of East 12th Street at 29th Avenue, as well as the cost of upgrading the signals to current City standards. However, the project sponsor may be subject to reimbursement from future projects which would also add traffic to this intersection for all but sponsor's fair share, or as otherwise agreed upon. After mitigation, the intersection would operate at LOS D during the p.m. peak hour. The implementation of Mitigation Measure TRANS-4a would not lead to any adverse impacts.	
Impact TRANS 4b: (2025 Cumulative) The addition of project traffic would cause the level of service to deteriorate from LOS E to LOS F at the *East 7th Street at Kennedy Street* intersection during the p.m. peak hour. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth.	**Mitigation Measure TRANS-4b**: The project shall implement **Mitigation Measure TRANS-3a**.	Less than Significant
Impact TRANS-11: Construction of the proposed project would affect traffic flow and circulation, parking, and pedestrian safety.	**Standard Condition TRANS-11**: Prior to the issuance of each building permit, the project sponsor and construction contractor shall meet with the Transportation Services Division of the Oakland Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project sponsor shall develop a construction management plan for review and approval by the City Transportation Services Division. The plan shall include at least the following items and requirements: • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. • Location of construction staging areas for materials,	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	equipment, and vehicles (must be located on the project site). • Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant. • Temporary construction fences to contain debris and material and to secure the site. • Provisions for removal of trash generated by project construction activity. • A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. • Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected. • Subject to City review and approval, prior to start of construction, a construction worker transportation demand management (TDM) program shall be implemented to encourage construction workers to carpool or use alternative transportation modes in order to reduce the overall number of vehicle trips associated with construction workers.	
D. Air Quality		
Impact AIR-1: Activities associated with demolition, site preparation, and construction throughout development of the project would generate suspended and inhalable particulate matter.	**Standard Condition AIR-1a**: Asbestos Removal – If asbestos is found to be present in building materials to be removed, demolition and disposal is required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of Bay Area Air Quality Management District (BAAQMD) regulations, as may be amended.	Less than Significant
	Standard Condition AIR-1b: Dust Control Measures – During construction, the project applicant shall require the construction contractor to implement the following measures required as part of Bay Area Air Quality Management District's (BAAQMD) basic	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	and enhanced dust control procedures required for construction sites. These include: *Basic Controls that Apply to All Construction Sites* a) Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c) 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. d) Sweep daily (with water sweepers using reclaimed water if possible) all paved access roads, parking areas and staging areas at construction sites. e) Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads. f) Limit the amount of the disturbed area at any one time, where feasible. g) Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. h) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. i) Replant vegetation in disturbed areas as quickly as feasible. j) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). k) Limit traffic speeds on unpaved roads to 15 miles per hour.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	l) Clean off the tires or tracks of all trucks and equipment leaving any unpaved construction areas. *Enhanced Controls that Apply to Sites Greater than 4 Acres* m) All "Basic" controls listed above, plus n) Install sandbags or other erosion control measures to prevent silt runoff to public roadways. o) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). p) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction. q) Install appropriate wind breaks at the construction site to minimize wind blown dust. *(Also see Standard Condition HAZ-1e.)*	
Impact AIR-2: Activities associated with demolition, site preparation and construction throughout development of the project would generate emissions of criteria pollutants, including equipment exhaust emissions.	*Impact is* Less than Significant*, however, the following Standard Condition is identified although it is not required to reduced a significant impact:* **Standard Condition AIR-2:** Construction Emissions - a) Demonstrate compliance with BAAQMD Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. BAAQMD Regulation 2, Rule 1, requires an authority to construct and permit to operate certain types of portable equipment used for construction purposes (e.g., gasoline or diesel-powered engines used in conjunction with power generation, pumps, compressors, and cranes) unless such equipment complies with all applicable requirements of the "CAPCOA" Portable Equipment Registration Rule" or with all applicable requirements of the Statewide Portable Equipment Registration Program. This	Remains Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	exemption is provided in BAAQMD Rule 2-1-105. b) Perform low- NOx tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) should be performed for such equipment used continuously during the construction period.	
E. Noise		
Impact NOI-1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity.	**Standard Condition NOI-1a**: The project applicant shall require construction contractors to limit standard construction activities as follows, ongoing throughout demolition, grading, and/or construction: a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday for all other cases, Pile driving and/or other extreme noise generating activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday. b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division. c) Construction activity shall not occur on Saturdays, with the following possible exceptions: • Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division. • After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed. d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions. e) No construction activity shall take place on Sundays or Federal holidays. f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area. Also, the following project-specific recommendation identified in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study (Salter Associates, Inc., 2005)* is consistent with, and incorporated as part of Standard Condition NOI-1a: g) During mobilization of earth moving equipment near noise-sensitive areas, equipment operations shall be performed during the peak traffic hours, to the extent feasible and in accordance with the Oakland Noise Ordinance. Based on the on-site noise measurements conducted for this EIR, traffic noise is fairly constant between the hours of 8 a.m. and 6 p.m. **Standard Condition NOI-1b:** To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to City review and approval, which includes the following measures, ongoing throughout demolition, grading, and/or construction: a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible). b) Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible. c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible. d) If feasible, the noisiest phases of construction shall be limited to less than 10 days at a time. Also, the following project-specific recommendation identified in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study (Salter Associates, Inc., 2005)* is consistent with, and incorporated as part of Standard Condition NOI-1b: e) Temporary noise barriers shall be incorporated at the site shall and shall be: • a minimum of three pounds per square foot (e.g., wood, steel) and have no visible cracks or gaps, including at the base; • located and of a height (generally up to 8-feet tall) to break any line-of-sight between the receivers and equipment; f) Equipment and staging areas shall be positioned closest to the UPRR tracks, avoiding as much as possible the southwest corner of East 12th Street and 29th Avenue and the northeast corner of East 12th	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	Street and Derby Avenue, which are closest to residential, educational and outdoor recreational uses. Where possible, noise barriers shall be erected around stationary noise generating operations. g) "Quiet" procedures shall be used, wherever feasible, such as: • use of drills rather than impact equipment; • "quiet" gasoline or electric-powered compressors; • electric rather than gasoline or diesel-powered forklifts; • welded rather than bolted steel connections to reduce the use of impact wrenches; • pre-cut metal decks and metal studs off-site to minimize on-site sawing; • use of core bits instead of hammer drilling; and • use concrete screws instead of powder-actuated fasteners. **Standard Condition NOI-1c:** To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90 dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of the following measures. These attenuation measures shall include as many of the following control strategies as feasible, ongoing	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	throughout demolition, grading, and/or construction: a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; b) Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; d) Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example; and e) Monitor the effectiveness of noise attenuation measures by taking noise measurements. **Standard Condition NOI-1d:** Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the City Building Services Division a list of measures to respond to and track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction. These measures shall include the following: a) A procedure and phone numbers for notifying the City Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours); b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours); c) The designation of an on-site construction complaint and enforcement manager for the project. As recommended by the *Fruitvale Gateway Construction*	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	Noise and Vibration Feasibility Study (Salter Associates, Inc., 2005), the manager shall act as a liaison between the project and its neighbors. The manager's responsibilities and authority shall include the following: • familiarity with the project and construction schedule, including attending weekly construction meetings; • an active role in monitoring project compliance with respect to noise; • ability to reschedule noisy construction activities to reduce effects on surrounding noise sensitive receivers; • Site supervision of all potential sources of noise (e.g., material delivery, shouting, debris box pick-up and delivery) for all trades; and • Intervening or discussing mitigation options with contractors. d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.	
Impact NOI-3: The project would place noise-sensitive multifamily residential uses in a noise environment characterized as "clearly unacceptable" for such uses by the City of Oakland.	**Standard Condition NOI-3a:** If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer. Final recommendations for sound-rated assemblies will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phase. As recommended in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	Associates, Inc., 2005), specific consideration shall be given to window size, degree of sound insulation of exterior walls, which can be increased through staggered- or double-studs, multiple layers of gypsum board, and incorporation of resilient channels.	
	Standard Condition NOI-3b: Sound rated walls, window, and exterior doors shall be installed on project building facades as follows, subject to review by a qualified acoustical engineer pursuant to Standard Condition NOI-3a, and as recommended in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter Associates, Inc., 2005):	Less than Significant

Building Façade Location	**Mitigation STC[a] Rating (50 % Window Area)**
North façades along East 12th Street / BART	STC 38 - 43
West façades along 25th Avenue	STC 34 – 39
East and West facades along 29th Avenue	STC 34 – 39
East façades along Derby Avenue	STC 40– 45
South facades along UPRR	STC 45+
Facades interior to the project site	STC 28 - 33

	Mitigation STC[a] Rating (90 % Window Area)
North façades along East 12th Street / BART	STC 40 - 45
West façades along 25th Avenue	STC 37 - 42
East and West facades along 29th Avenue	STC 37 - 42
East façades along Derby Avenue	STC 42 - 47
South facades along UPRR	STC 50+

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	Facades interior to the project site STC 31 - 36 [a] Sound Transmission Class (STC) – A single figure rating standardized by ASTM and used to rate the sound insulation properties of building partitions. Since the required STC ratings are dependant on the architectural design (e.g., room, window, and door sizing, and interior floor finishes), a qualified acoustical consultant shall be retained during the design phase to refine the necessary STC ratings, with consideration given to window size, degree of sound insulation of exterior walls, which can be increased through staggered- or double-studs, multiple layers of gypsum board, and incorporation of resilient channels.	
Impact NOI-4: The project would place noise-sensitive publicly-accessible outdoor uses in a noise environment characterized as "clearly unacceptable" for such uses, as established by the Noise Element of the Oakland General Plan. (Potentially Significant)	**Standard Condition NOI-4**: All balconies and courtyards proposed in project buildings shall be located towards the interior of the project site, to break the line of sight between the primary noise sources (UPRR, BART and traffic along 12th Street) and publicly-accessible open spaces. If necessary to comply with the land use compatibility requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable outdoor noise levels at publicly-accessible open spaces, noise reduction in the form of specific layout of buildings on the site and, if warranted, barrier walls along the south façade of the site to break the line of site to/from the UPRR adjacent to the south, based on recommendations of a qualified acoustical.	Less than Significant
Impact NOI-5: The project would expose sensitive residential uses to groundborne vibration from trains passing by on the UPRR tracks.	**Standard Condition NOI-5a:** The project applicant shall incorporate special building methods to reduce groundborne vibration being transmitted into project building structures containing residential uses. Potential methods include the following: • Isolation of foundation and footings using resilient elements such as rubber bearing pads or springs, such as a "spring isolation" system that consists of resilient spring support that can support the podium or residential foundations. The specific system shall be selected so that it can properly support the structural loads, and provide adequate filtering of ground-borne vibration to the residences above. • Trenching, which involves excavating soil between the railway and the project so that the vibration path is	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	interrupted, thereby reducing the vibration levels before they enter the project's structures. Since the reduction in vibration level is based on a ratio between trench depth and vibration wavelength, additional measurements shall be conducted to determine the vibration wavelengths affecting the project. Based on the resulting measurement findings, an adequate trench depth and, if required, suitable fill shall be identified (such as foamed styrene packing pellets [i.e., Styrofoam] or low-density polyethylene). Since trench depths required to mitigate groundborne vibration generated by railway operations can be significant (e.g. greater than 30-feet), the project sponsor shall submit the for City review and approval any trench proposal. • The foundation system or other equivalent mechanism (such as trenching) shall effectively reduce groundborne vibration level at residential areas on the project site that are 1) not above at least two parking levels and 2) less than 70 feet from the nearest train track centerline, by at least 7 dB or other increment to ensure vibration levels that do not exceed the maximum FTA threshold of 72 dB for residential use.	
	Standard Condition NOI-5b: A qualified acoustical consultant shall be retained during the design phase of the project to comment on structural design as it relates to mitigating groundborne vibration at the project site.	Less than Significant
F. Hazardous Materials		
Impact HAZ-1: Historical uses at and in the vicinity of the project site have impacted soil and groundwater at the project site. Contaminated soil and groundwater could pose risks to human health and the environment.	**Standard Condition HAZ-1a**: Same as **Standard Condition AIR-1a.**	Less than Significant
	Standard Condition HAZ-1b: Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	Standard Condition HAZ-1c: The project applicant shall submit a comprehensive assessment report, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.	Less than Significant
	Standard Condition HAZ-1d: If the environmental site assessment reports recommend remedial action, the project applicant shall: a) Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps. b) Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency. c) Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.	Less than Significant
	Standard Condition HAZ-1e: Natural Asbestos in Soils – To minimize the release of naturally occurring asbestos in the soil during construction, the project sponsor shall require the construction contractor to demonstrate compliance with BAAQMD's Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying and Surface Mining Operations (implementing CCR section 93105) for activities that disturb the soil, such as grading, etc. <u>Minimum Requirements where area to be disturbed with Construction Operations is More than 1 acre</u> *<u>Administrative (Prior to the start of work)</u>*	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	a) Asbestos Dust Minimization Plan submitted to BAAQMD and approved prior to engaging in the any construction or grading operation. b) The Asbestos Dust Minimization Plan provisions shall be implemented at the beginning and maintained throughout the duration of the construction or grading activity. *Dust Control Requirements* The Asbestos Dust Minimization Plan shall include one or more provisions to address the following topics: c) Control for traffic on on-site unpaved roads, parking lots, and staging areas shall include: limiting vehicle speed to less than 15 mph, and one or more of the following: watering every two hours of active operations or sufficiently often to keep area wetted; applying chemical dust suppressants to consistent with manufacturer's directions; maintaining gravel cover with a silt content less than 5% and asbestos content less than .25% as determined using the asbestos bulk test method; or any other measure as effective as those listed above. d) Control for earthmoving activities shall include one or more of the following: pre-wetting the ground to the depth of the anticipated cuts; suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line despite applicable of dust measures; application of water prior to any land clearing; or any other measure as effective. e) Storage piles kept adequately wetted, or covered with tarps when the material is not being added or removed. f) Storage piles must be stabilized when inactive for more than 7 days by implementing one or more of the following: adequately wetting the site, establishing and maintaining surface crusting material, chemical dust suppressant or stabilizer, covering with tarps or vegetative cover, installation of wind barriers of 50% porosity around three sides of the pile areas, or any	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	measure as effective. g) Equipment must be washed down before moving from the property onto paved roadway. h) Track-out prevention and control measures shall include *i)* Removal of visible track-out on paved public road at any location where vehicles exit the work site using wet sweeping or High Efficiency Particulate Air (HEPA) filter equipped vacuum device at least one time per day. *ii)* Installation of one or more of the following track-out prevention devices: gravel pad, tire shaker, wheel wash system, not less than 50 feet of pavement extending from intersection with paved public road, or other measure as effective. i) Control for offsite-transport shall include the following: maintenance of trucks such that no spillage can occur from holes or openings in cargo compartments; loads are adequately wetted; and either covered with tarps or loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6" from the top and that at no point of the load extends above the top of the cargo compartment. j) Post project stabilization of disturbed surfaces using one or more of the following: establishing vegetative cover; placement of at least 3" of non-asbestos-containing material, paving, or other measure deemed sufficient to prevent 10 mph winds from causing visible emissions. *Administrative (After completion of work)* k) If required by the BAAQMD's APCO, the plan must include an air-monitoring component which shall specify the following: type of air sampling device; siting of the device; sampling of the device; sampling duration and frequency; and analytical method. l) The plan shall state the frequency with which the information will be reported to BAAQMD.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	m) The owner/operator shall keep maintain the following records for at least 7 years following completion of the project: results of any required air monitoring; documentation for any geologic evaluation conducted for the purposes of obtaining an exemption; and results of any bulk sampling conducted by the owner/operator to document applicability done or at the request of APCO. *(Also see Standard Condition AIR-1b.)*	
	Standard Condition HAZ-1f: The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Services, Hazardous Materials Units. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. The Hazardous Materials Business Plan shall include the following: a) The types of hazardous materials or chemicals stored and/or used on site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids. b) The location of such hazardous materials. c) An emergency response plan including employee training information d) A plan that describes the manner in which these materials are handled, transported and disposed.	Less than Significant
Impact HAZ-2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, and USTs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.	**Standard Condition HAZ-2a:** If asbestos is found to be present in building materials to be removed, demolition and disposal is required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of Bay Area Air Quality Management District (BAAQMD) regulations, as may be amended.	Less than Significant
	Standard Condition HAZ-2b: If lead-based paint is present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, specifications signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.	
	Standard Condition HAZ-2c: If asbestos-containing materials (ACM) are present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.	Less than Significant
	Standard Condition HAZ-2d: If other building materials or stored materials classified as hazardous waste by State or federal law is present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, written confirmation that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.	Less than Significant
	Standard Condition HAZ-2e: If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall, prior to issuance of any demolition, grading or building permit, create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.	
Impact HAZ-3: Hazardous materials used onsite during construction activities (i.e. solvents, paints, fuels, and glues) could be released to the environment through improper handling or storage.	**Standard Condition HAZ-3:** The project applicant and construction contractor shall ensure that construction best management practices are implemented as part of construction to minimize the potential negative effects to groundwater and soils, prior to commencement of demolition, grading, or construction. These shall include the following: a) Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction; b) Avoid overtopping construction equipment fuel gas	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	tanks; c) During routine maintenance of construction equipment, properly contain and remove grease and oils; d) Properly dispose of discarded containers of fuels and other chemicals. e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building. The applicant is responsible to avoid, eliminate delays with the unexpected discovery of contaminated soils with hazardous materials.	
Impact HAZ-4: Accidental rupture of the petroleum pipeline located along the southern boundary of the site could result in adverse impacts to workers, the public, and the environment.	**Standard Condition HAZ-4:** Forty-eight hours prior to initiation of subsurface excavation, the City of Oakland shall require the project sponsor to delineate the proposed excavation area and notify Underground Surface Alert (USA). In addition to USA notification, the project Sponsor shall provide Kinder Morgan a 48–hour notice of excavation proposed within five feet of the pipeline. Engineering and construction drawings shall clearly delineate the location and path of the petroleum pipeline.	Less than Significant
G. Public Services, Parks, and Recreation Facilities		
Impact PS-4: The proposed project has the potential to increase the onsite resident population, and would increase the use of existing neighborhood and regional parks or other recreational facilities, resulting in substantial new or accelerated physical deterioration.	*Impact is* Less than Significant*, however, the following Provisional Mitigation Measure is identified and shall be required if specific project components are not implemented:* **Mitigation Measure PS-4 (Provisional):** If for any reason the foregoing project components that address existing park and recreation needs in the Fruitvale Planning Area are not implemented with the proposed project, the project sponsor shall pay to the City of Oakland in-lieu fees in an amount adequate to address the resulting effect of the project (without implementation of the foregoing components) on park and recreation facilities within the Fruitvale Planning Area.	If Provisional Mitigation Measure PS-4 is required, impact is Less than Significant after implementation.

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
H. Utilities and Service Systems		
Impact UTIL-1: The project would not exceed water supplies available to serve the project from existing entitlements and resources, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	*Impact is* Less than Significant*, however, the following Standard Condition is identified although it is not required to reduced a significant impact:* **Standard Condition UTIL-1:** As feasible and applicable, the project sponsor shall implement the following water-efficient equipment and devices into building design and project plans, consistent with the Landscape Water Conservation section of the City of Oakland Municipal Code (Chapter 7, Article 10): low-, ultra-low, and dual flush flow toilets and showerheads; water efficient irrigation systems that include drip irrigation and efficient sprinkler heads; evapotranspiration (ET) irrigation controllers; drought-resistant and native plants for landscaping; and minimization of turf areas.	Remains Less than Significant
Impact UTIL-2: The project's projected wastewater demand would not result in the City of Oakland exceeding its citywide projected base flow allocation, however, it would exceed base flow allocation for Subbasins 60-04 and 62-01, which may require construction of new or expanded facilities, the construction of which could cause significant environmental effects.	**Standard Condition UTIL-2a:** Prior to completing the final design for the project's sewer service, confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the City. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.	Less than Significant
	Standard Condition UTIL-2b: The project shall implement the following standard conditions of approval identified elsewhere in this EIR if the City determines the need for new or expanded sanitary sewer facilities that the project sponsor would implement: • Standard Condition TRANS-11 (Construction Traffic)	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	• Standard Conditions AIR-1a and AIR-1b (Asbestos Removal and Construction Dust and Emission) • Standard Conditions NOI-1a through NOI-1i (Construction Period Noise) • Standard Conditions HYD-1 and HYD-2 (Water Quality during Construction; Contaminated Groundwater Discharge) • Standard Conditions HAZ-1a through HAZ-1f; HAZ-2a through HAZ-2e; HAZ-3 and HAZ-4 (Hazardous Materials).	
Impact UTIL-4: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would not require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects. Additionally, the project would not impede the ability of the City to meet the waste diversion requirements of the California Integrated Waste Management Act or the Alameda County Waste Reduction and Recycling Initiative or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste.	*Impact is* Less than Significant*, however, the following Standard Condition is identified although it is not required to reduced a significant impact:* **Standard Condition UTIL-4a:** Prior to issuance of demolition, grading, or building permit The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency. Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan. **Standard Condition UTIL-4b:** The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill	Remains Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.	
I. Hydrology and Water Quality		
Impact HYD-1: Construction-related erosion during project development could result in adverse impacts to the water quality of the Oakland Inner Harbor and San Francisco Bay.	**Standard Condition HYD-1:** *Construction Stormwater Pollution Prevention Plan (SWPPP*) - The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP). At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue though the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.	Less than Significant
Impact HYD-2: Project excavation activities would not deplete groundwater supplies nor substantially interfere with groundwater recharge or cause contaminated groundwater discharge to contaminate surface water	**Standard Condition HYD-2:** The City of Oakland shall require the Project Sponsor to obtain a discharge permit from EBMUD or the City of Oakland Public Works Agency and RWQCB prior to discharge of groundwater or stormwater generated from dewatering.	Less than Significant
Impact HYD-3: Implementation of the proposed project could result in development and uses that contribute to Non-Point Source (NPS) pollution levels in the Oakland Estuary and San Francisco Bay.	**Standard Condition HYD-3a:** *Post-Construction Stormwater Pollution Management Plan (SWPMP)*- The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	construction-related permit) a completed Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City, to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable. The post-construction stormwater pollution management plan shall include and identify the following: a) All proposed impervious surface on the site; b) Anticipated directional flows of on-site stormwater runoff; c) Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; d) Source control measures to limit the potential for stormwater pollution; and e) Stormwater treatment measures to remove pollutants from stormwater runoff. The following additional information shall be submitted with the post-construction stormwater pollution management plan: f) Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and g) Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures. All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater pollution management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program. *Prior to final permit inspection* h) The applicant shall implement the approved stormwater pollution management plan. **Standard Condition HYD-3b:** Standard Condition HYD-3b: Maintenance Agreement for Stormwater Treatment Measures - Prior to final zoning inspection, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following: The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.	Less than Significant
Impact HYD-4: Implementation of the proposed project could alter drainage patterns on the project site, potentially having adverse effects on the volume and/or timing of peak runoff in the municipal storm drain system.	**Standard Condition HYD-4**: Implementation of **Standard Condition HYD-3a and HYD-3b.**	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
J. Geology, Soils, and Seismicity		
Impact GEO-1: Redevelopment in the project area could expose people or structures to seismic hazards such as groundshaking or liquefaction	*Impact is* Less than Significant*, however, the following Provisional Mitigation Measure is identified and shall be required if specific project components are not implemented:* **Standard Condition GEO-1:** A site-specific, design level geotechnical investigation for each construction site within the project area (which is typical for any large, phased development project) shall be required as part of this project. Specifically: a) Each investigation shall include an analysis of expected ground motions at the site from known active faults. The analyses shall be in accordance with applicable City ordinances and policies and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from known active faults. b) The investigations shall determine final design parameters for the walls, foundations, foundation slabs, and surrounding related improvements (utilities, roadways, parking lots and sidewalks). c) The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer will be included in the final design. d) Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project design phase, shall be incorporated in the project. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to the commencement of the project.	Remains Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
L. Biological Resources		
Impact BIO-1: Implementation of the proposed project could result in the removal and pruning of, and potential damage to, protected trees.	**Standard Condition BIO-1a:** Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit, and abide by the conditions of that permit. **Standard Condition BIO-1b:** Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist: a) Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree. b) Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree. c) No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. d) Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. e) If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed. f) All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.	
Impact BIO-2: Activities associated with the construction of the proposed project could result in adverse impacts on special-status bird species.	**Standard Condition BIO-2:** To the extent feasible, removal of the large trees and other vegetation suitable for nesting shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds or raptors. If the survey indicates that potential presences of nesting birds or raptors, the results would be coordinated with CDFG and suitable avoidance measures would be developed and implemented. Construction shall observe the CDFG avoidance guidelines which are a minimum	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	500-foot buffer zone surrounding active raptor nests and a 250-foot buffer zone surrounding nests of other birds. Buffer zones shall remain until young have fledged.	
M. Cultural Resources		
Impact CUL-1: The project could adversely affect unknown or undocumented historical resources or unique archaeological resources.	**Standard Condition CUL-1a:** Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out. Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
	implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist would recommend appropriate analysis and treatment, and would prepare a report on the findings for submittal to the Northwest Information Center.	
	Standard Condition CUL-1b: In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.	Less than Significant
Impact CUL-2: The project would adversely affect paleontological resources	**Standard Condition CUL-2:** In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.	Less than Significant

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
C. LESS THAN SIGNIFICANT, BENEFICIAL OR NO IMPACT		
(No Mitigation Measures or Standard Conditions of Approval Required)		
A. Land Use, Plans and Policies		
Impact LU-1: The project would not physically divide an existing community or fundamentally conflict with existing adjacent land uses.	None Required.	
Impact LU-2: The project would not result in a fundamental conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	None Required.	
Impact LU-3: The project, combined with other foreseeable development included in the Oakland cumulative growth scenario, would not result in cumulative land use impacts.	None Required.	
B. Visual Quality and Shadow		
Impact AES-1: The proposed project would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources.	None Required.	
Impact AES-2: The proposed project would alter the existing visual conditions on the project site, but would not substantially degrade the existing visual character or quality of the site and its surroundings.	None Required.	
Impact AES-4: The proposed project would result in additional shadow on adjacent areas, however, the project would not cast shadow on historic resources; would not introduce landscaping conflicting with the California Public Resource Code, would not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and would not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space.	None Required.	
Impact AES-5: The proposed project may require an exception (variance) to applicable policies and regulations addressing the provision of adequate light related to appropriate uses.	None Required.	
Impact AES-6: The proposed project, when combined with other foreseeable development in the vicinity, as identified in the Oakland cumulative growth scenario, could result in	None Required.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
C. LESS THAN SIGNIFICANT, BENEFICIAL OR NO IMPACT		
(No Mitigation Measures or Standard Conditions of Approval Required)		
cumulative impacts related to visual character views, aesthetics, shadow, light and glare.		
C. Transportation, Circulation, and Parking		
Impact TRANS-1: Traffic generated by the proposed project would affect project driveways	None Required.	
Impact TRANS-5: Traffic generated by the project would affect baseline traffic levels on freeway segments in the project area.	None Required.	
Impact TRANS-6: Traffic generated by the project would affect traffic levels on freeway segments in the project area under future (2010) Conditions.	None Required.	
Impact TRANS-7: Traffic generated by the proposed project would affect traffic levels on freeway segments in the project area under Cumulative (2025) Conditions.	None Required.	
Impact TRANS-8: The proposed project would increase ridership on public transit providers serving the area.	None Required.	
Impact TRANS-9: Development of the proposed project would conflict with existing pedestrian and/or bicycle facilities.	None Required.	
Impact TRANS-10: Development of the proposed project would not require improvements to pedestrian and/or bicycle facilities.	None Required.	
Impact TRANS-12: Development of the proposed project would have a cumulative impact on roadway segments in the regional traffic network.	None Required.	
D. Air Quality		
Impact AIR-3: The project would result in increased emissions of criteria pollutants and their precursors from vehicular traffic to and from the project site, however, the emission increases from the project would not exceed Bay Area Air Quality Management District significance criteria.	None Required.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
C. LESS THAN SIGNIFICANT, BENEFICIAL OR NO IMPACT		
(No Mitigation Measures or Standard Conditions of Approval Required)		
Impact AIR-4: Mobile emissions generated by project traffic would increase carbon monoxide concentrations at intersections in the project vicinity.	None Required.	
Impact AIR-5: The proposed project could result in exposure of persons to substantial levels of Toxic Air Contaminants such that the probability of contracting cancer for the Maximally Exposed Individual exceeds 10 in one million.	None Required.	
Impact AIR-6: The proposed project is fundamentally consistent with the growth assumptions of the Bay Area Clean Air Plan.	None Required.	
E. Noise		
Impact NOI-2: Noise from project-generated traffic and other operational noise sources, such as mechanical equipment, truck loading/unloading, etc., would not exceed the Oakland Noise Ordinance standards and impact nearby sensitive receptors.	None Required.	
Impact NOI-6: The proposed project, together with anticipated future development included in the Oakland cumulative growth scenario, could result in long-term traffic increases that could cumulatively increase noise levels.	None Required.	
F. Hazardous Materials		
Impact HAZ-5: Project operations would generate and involve the handling of general commercial and household hazardous waste in small quantities, and therefore would not cause an adverse effect on the environment.	None Required.	
Impact HAZ-6: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, would not result in cumulative hazardous materials impacts.	None Required.	
G. Public Services, Parks, and Recreation Facilities		
Impact PS-1: The increased population and density resulting from the project would not involve or require new or physically	None Required.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
C. LESS THAN SIGNIFICANT, BENEFICIAL OR NO IMPACT		
(No Mitigation Measures or Standard Conditions of Approval Required)		
altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services.		
Impact PS-2: The increased population and density resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities.	None Required.	
Impact PS-3: The students generated by the project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools.	None Required.	
Impact PS-5: Increased population resulting from the proposed project, in conjunction with that generated by other foreseeable development in the city and the project vicinity, would increase the cumulative demand for public services, parks, and other recreational facilities such that new facilities could be needed in order to maintain acceptable citywide service ratios.	None Required.	
H. Utilities and Service Systems		
Impact UTIL-3: The project would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	None Required.	
Impact UTIL-5: The project would not violate applicable federal, state and local statutes and regulations relating to energy standards; nor would the proposed project result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	None Required.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
C. LESS THAN SIGNIFICANT, BENEFICIAL OR NO IMPACT		
(No Mitigation Measures or Standard Conditions of Approval Required)		
Impact UTIL-6: The increased development resulting from the proposed project, in conjunction with population and density of other foreseeable development in the city, would not result in cumulative impacts on utilities and service systems.	None Required.	
I. Hydrology and Water Quality		
Impact HYD-5: The project would not result in flooding due to its proximity to a 100-year flood hazard area, or expose people or structures to other substantial risk related to flooding, seiche, tsunami, or mudflow.	None Required.	
Impact HYD-6: The increased construction activity and new development resulting from the project, in conjunction with other foreseeable development in the city, would not result in cumulatively considerable impacts on hydrology and water quality conditions.	None Required.	
J. Geology, Soils, and Seismicity		
Impact GEO-2: Redevelopment in the project area could expose people or structures to surface fault rupture.	None Required.	
Impact GEO-3: Redevelopment in the project area could be subjected to geologic hazards, including expansive soils, differential settlement, and erosion.	None Required.	
Impact GEO-4: The development proposed as part of the project, when combined with other reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils or seismicity.	None Required.	
K. Population, Housing, Employment		
Impact POP-1: The project would not induce substantial population growth, directly, by proposing new housing or businesses, or indirectly, through infrastructure improvements, such that additional infrastructure is required that was not previously considered or analyzed.	None Required.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

Environmental Impact	Mitigation Measures or Standard Conditions	Level of Significance after Mitigation or Standard Condition
C. LESS THAN SIGNIFICANT, BENEFICIAL OR NO IMPACT		
(No Mitigation Measures or Standard Conditions of Approval Required)		
L. Biological Resources		
Impact BIO-3: Tree removal, building demolition, pile driving, and other proposed construction activities during the breeding season could result in impacts to special-status bat species.	None Required.	
Impact BIO-4: Construction activity resulting from the project, in conjunction with other foreseeable infill development in already heavily urbanized portions of the city, could result in impacts on special-status birds and bats	None Required.	
M. Cultural Resources		
Impact CUL-3: The project would have an adverse impact to architectural resources or built historical resources.	None Required.	
Impact CUL-4: The proposed project could contribute to cumulative impacts on cultural resources.	None Required.	
N. Other Topics		
Agricultural Resources: The project would not result in impacts to agricultural resources. (No Impact)	None Required.	
Mineral Resources: The project would not result in impacts on mineral resources. (No Impact)	None Required.	

TABLE II-1 (continued)
SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS AND RESIDUAL IMPACTS

D. RECOMMENDATIONS IDENTIFIED FOR NON-CEQA TOPICS

Pedestrian and Bicycle Facilities	**Recommendation 1** ***(Pedestrian and Bicycle Facilities)***: The project shall construct City Standard sidewalks at the at-grade railroad crossing on 29th Avenue south of the project site. **Recommendation 2** ***(Pedestrian and Bicycle Facilities)***: The project shall construct pedestrian bulb-outs in the northeast and southeast corners of the East 12th Street at 29th Avenue intersection. The pedestrian bulb-out in the northeast corner would extend approximately eight feet into each roadway (East 12th Street at 29th Avenue). On-street parking spaces would be removed as needed to construct the bulb-outs. Along the northbound approach to this intersection (29th Avenue), roadway width is limited due to the lack of on-street parking. Thus, the bulb-out in the southeast quadrant would only extend into East 12th Street because it would otherwise overlap with the northbound right-turn lane on 29th Avenue. The bulb-outs would increase pedestrian safety and improve the operation of the intersection by decreasing crossing times. The bulb-outs would not decrease level of service of the intersection due to the presence of on-street parking along the frontage of the proposed project site. Bulb-outs should be constructed based on the City of Oakland's Standard Plans.

CHAPTER III
Project Description

A. Introduction

Overall Development Proposal

This environmental document provides environmental review under CEQA for the maximum anticipated build-out of the Gateway Community Development Project ("proposed project" or "project") - a proposed mixed-use planned unit development (PUD) along the south side of East 12th Street, between approximately 26th Avenue and Derby Avenue.[1] The Oakland Planning Code, located in Title 17 of the Oakland Municipal Code, defines a PUD as "a large, integrated development adhering to a comprehensive plan and located on a single tract of land, or on two or more tracts of land which may be separated by a street or other right-of-way" (Section 17.122.020). The PUD for the proposed project would entail an integrated mix of up to 810 residential units, approximately 25,950 square feet of commercial space, and associated parking and open space on several parcels totaling nearly 9.7 acres.

This EIR will accompany Pacific Thomas Capital's requests for approval of the Preliminary Development Plan (PDP) for the PUD. Pursuant to the specific PUD procedures and criteria provided in Chapter 17.140 of the Oakland Planning Code, within one year (or in conformance with a schedule established by the Planning Commission), the project developer (or developers), would be required to submit a final integrated development plan or plans, referred to as Final Development Plan(s) (FDP[s]) for the PUD. Because development of this PUD would be phased over a 15 to 20 year period, the City of Oakland anticipates that the actual number of residential units and square footages devoted to commercial uses may change, depending on future approvals by decisionmakers, such as design review. However, it is not anticipated that the proposed project will substantially exceed the development program or footprint outlined and analyzed in this CEQA document. Future changes to the project and further detailed phasing may be governed by the terms of a related Development Agreement, to be entered into between Pacific Thomas Capital and the City of Oakland (described under E. *Discretionary Actions and Other Planning Considerations*, in this chapter). Further, any changes to the project analyzed in this document would be subject to further environmental review pursuant to CEQA Guidelines Sections 15162 through 15164, as well as Public Resources Code Section 21166.

[1] Following City of Oakland's convention, East 12th Street and International Boulevard and parallel streets run east-west, and 29th Avenue and Fruitvale Avenue run north-south.

The proposed project also requests approval of a General Plan Amendment, a Redevelopment Plan Amendment, a Rezoning, the Development Agreement with the City of Oakland, as well as a Disposition and Development Agreement with the Oakland Redevelopment Agency, and will require several other permits approvals described under Section E., *Discretionary Actions and Other Planning Considerations*, in this chapter. Pacific Thomas Capital has requested the required project approval for all portions of the project site and requested that the City initiate the required changes for portions of the site that it does not control as of publication of this Draft EIR.

Project Background

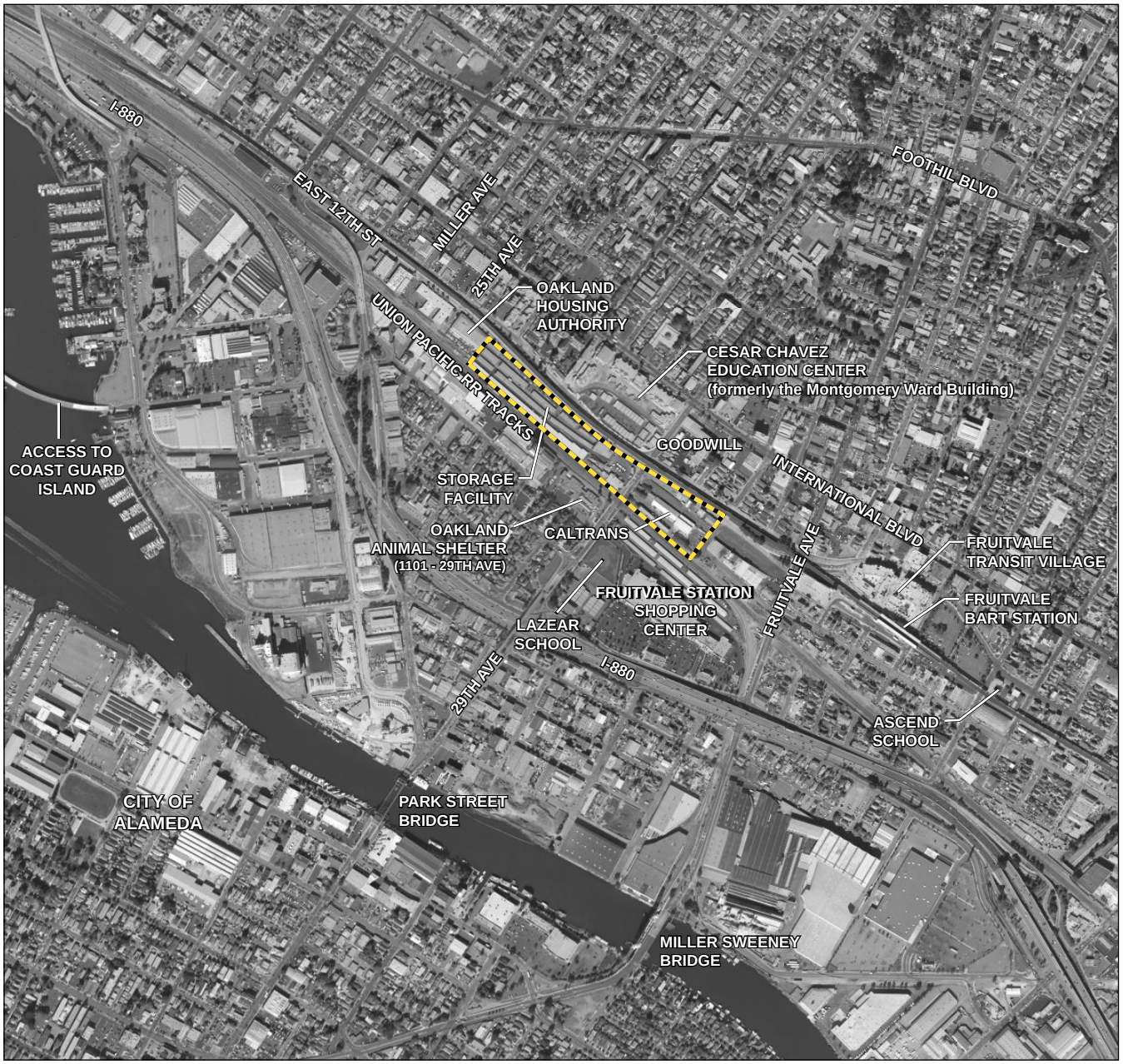
As indicated in the Introduction (Chapter I), the City issued a Notice of Preparation (NOP) (provided as **Appendix A** to this document) of this EIR on November 25, 2005 for the project (previously referred to as "The Gateway Project"). Subsequent to publication of the NOP, Pacific Thomas Capital modified aspects of the project scenario described in the NOP in response to input received on the project during the environmental scoping process, project-sponsored community meetings, and comments received from City staff and the Planning Commission. The City has determined that the proposed project analyzed in this document and described in detail in this chapter is not substantially different or expected to result in substantially greater environmental impacts than the scenario described in the NOP. A comparison of the two scenarios for the proposed project is provided within the discussion of C., *Project Characteristics*, further in this chapter.

B. Project Site and Vicinity

Site Location

The project site is located within Oakland's San Antonio/Fruitvale/Lower Hills Planning Area and the Oakland Coliseum Redevelopment Project Area, in an area of Oakland with nearby access to Interstate 880 (I-880) and the Oakland Estuary and direct access to the City of Alameda via the 29th Avenue/Park Street Bridge. **Figure III-1**, Project Location Map, delineates the project site located approximately two blocks west of Fruitvale Avenue, three blocks west of the Fruitvale Bay Area Rapid Transit (BART) Station, one block south of International Boulevard, and nearly three blocks (approximately 1,300 feet) north of I-880.

The site is approximately 9.7 acres comprised of all or parts of several parcels along the south side of East 12th Street at 29th Avenue. The northern boundary of the site is formed by East 12th Street; elevated BART tracks run approximately 30 feet above the median of East 12th Street. The southern boundary of the site is the Union Pacific Railroad right-of-way, which comprises several sets of active tracks and includes high speed underground fuel pipelines and other underground infrastructure. The western boundary of the site is approximately 26th Avenue (approximately 100 feet west of an imaginary extension of 26th Avenue from north of East 12th Street), and the eastern boundary of the site is Derby Avenue.



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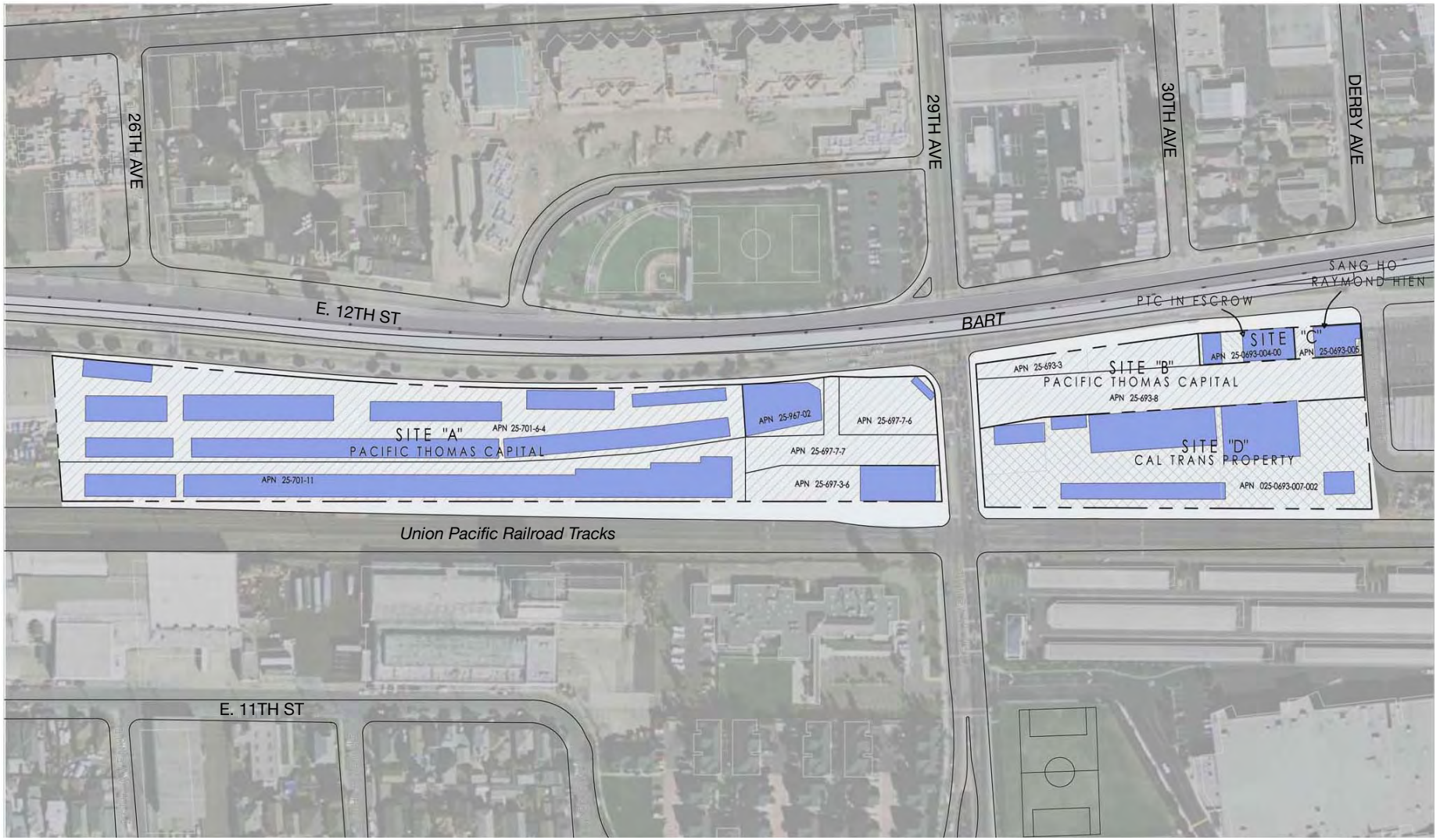
Project Boundary

SOURCE: TerraServer, 2006

Gateway Community Development Project . 204358

Figure III-1
Project Location Map



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SOURCE: MBH Architects, 2007

Figure III-2
Existing Site Configuration and Ownership (2005)

On-site Uses and Ownership

The project site is split by 29th Avenue. **Figure III-2**, Existing Site Configuration and Ownership (2005), indicates the existing parcels and ownership of parcels that make up the project site. The portion of the site west of 29th Avenue (Site A)[2] includes a self-storage facility, owned by Pacific Thomas Capital and operated by its affiliates, and a former hardware store and accompanying lumber yard. The portion of the site east of 29th Avenue includes vacant land that extends east-west through the middle of the site and is owned by Pacific Thomas Capital (Site B); three, one- and two-story commercial buildings that include an auto repair/maintenance shop (Site C); and the California Department of Transportation (Caltrans) South Oakland Maintenance Facility along the railroad tracks (Site D). The project sponsor does not currently own or control the land occupied by the Caltrans South Oakland Maintenance Facility or the three commercial buildings east of 29th Avenue (Sites C and D).

The project will require incremental demolition of all existing buildings on the project site. Existing development totals approximately 103,000 square feet of building area.

The project site is comprised of the following parcels identified by Alameda County Assessor Parcel Numbers (APNs), as delineated in **Figure III-2**:

Site A

- APN 025-0701-006-04 (Pacific Thomas Capital)
- APN 025-0707-011-00 (Pacific Thomas Capital)
- APN 025-0967-002-00 (Pacific Thomas Capital)
- APN 025-0697-007-06 (Pacific Thomas Capital)
- APN 025-0697-007-07 (Pacific Thomas Capital)
- APN 025-0697-003-06 (Pacific Thomas Capital)

Site B

- APN 025-0693-008-00 (Pacific Thomas Capital)
- APN 025-0693-003-00 (Pacific Thomas Capital)

Site C

- APN 025-0693-004-00 (Other Private Owner)
- APN 025-0693-005-00 (Other Private Owner)

Site D

- APN 025-0693-007-02 (Caltrans)

[2] Letter site references ("Site A" through "Site D") are used in this EIR only to defined site ownership areas shown in Figure III-2. Roman numeral site references ("Site I" through "Site VI") are used in this EIR to define the development sites that compose the project site.

Project Vicinity

The Cesar Chavez Education Center playfields are directly north of the site (and East 12th Street), west of 29th Avenue, and a Goodwill donation facility and store is located directly north of the project site, east of 29th Avenue. To the east to west along East 12th Street are residential areas, the St. Joseph's Professional Center complex, and small retail and commercial businesses, including a fast-food business.

The Oakland Housing Authority Building Facilities building exists directly west of the site. Beyond the railroad tracks along the site's south boundary, west of 29th Avenue, is the City of Oakland's Animal Shelter and industrial buildings with truck-related activities. East of 29th Avenue, a large, partially vacant industrial building exist directly east of the site, across Derby Avenue, and a self-storage facility exists to the south, beyond the site's southern boundary and railroad tracks. As noted in **Figure III-1** major activities and uses in the project site vicinity include the active Union Pacific railroad tracks along the southern border of the site and the elevated BART tracks paralleling the site's northern border, a burgeoning commercial/retail district along International Boulevard and at the Fruitvale Transit Village at the Fruitvale BART Station, approximately three blocks east of the closest project site boundary, and the 157,900 square-foot Fruitvale Station Shopping Center to the south and southeast, across 29th Avenue. The project site is approximately 1,900 feet from the Fruitvale BART Station entrance, as measured from the East 12th Street at 29th Avenue intersection. Thus, the western portion of the proposed project is over one-quarter mile away from the Fruitvale BART Station entrance, and most of the eastern portion of the proposed project is within one-quarter mile of the Fruitvale BART Station. As such, the project would support Oakland General Plan goals and policies that support reducing traffic congestion and promoting alternative transportation options given its close, walkable proximity to the Fruitvale BART Station where numerous transit services converge.

The project vicinity includes heavy and light industrial uses, many small commercial businesses, small retail shops, some vacant as well as active industrial facilities, three elementary schools within one block of the project site,[3] and a mix of multifamily and single-family developments as well as established residential neighborhoods.

The neighborhoods of Jingletown, Rancho San Antonio, Saint Elizabeth, and the Fruitvale surround and encompass this area, which has convenient access to the City of Alameda by the 29th Avenue/Park Street Bridge, the Miller-Sweeney (at Fruitvale Avenue) Bridge, and the High Street Bridge, all of which span the Oakland Estuary, a navigable waterway.

[3] In addition to the Cesar Chavez Education Center (includes three charter schools and a pre-school)directly across East 12th Street from the project site, these include Lazear Elementary School at 824 – 29th Avenue (one block south); and ASCEND (A School Cultivating Excellence, Nurturing Diversity) School, located at 3709 East 12th Street (seven blocks east).

C. Project Characteristics

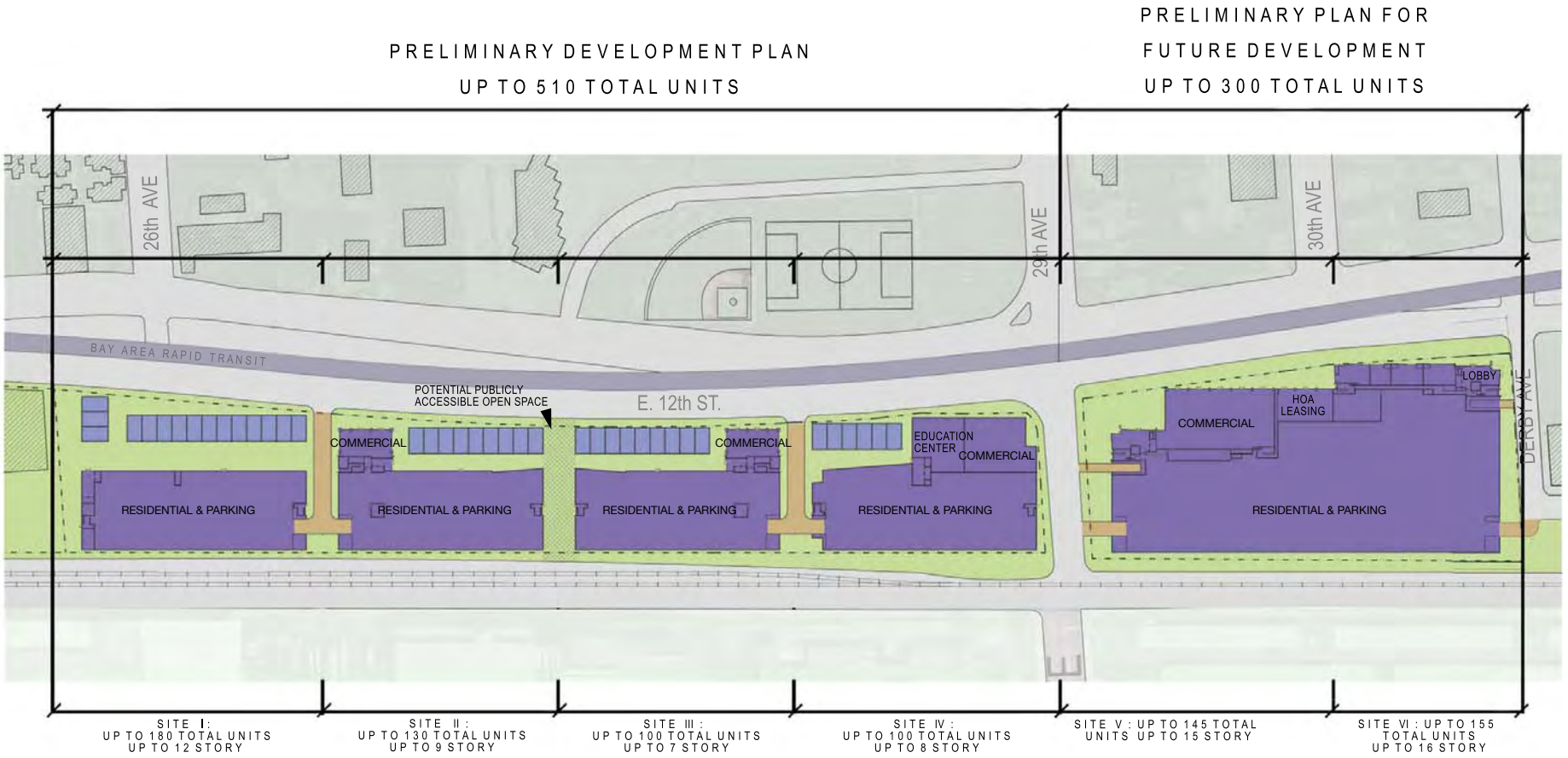
Overview of Master Development Plan

The project sponsor Pacific Thomas Capital proposes to build a phased residential and commercial mixed-use project on the approximately 9.7-acre site described above. The project would consist of up to 810 residential units, approximately 25,950 square feet of commercial space that is anticipated to be neighborhood retail or project-serving retail use, and an estimated 1,121 parking spaces. Development would occur primarily in six new structures: four multifamily buildings, two residential towers, as well as a series of townhomes. The six development sites are referred to throughout this EIR as "Site I" through "Site VI." The new buildings would range in height from approximately three stories to sixteen stories.

As illustrated in the **Figure III-3**, Master Development Plan, up to 510 units would be developed west of 29th Avenue in a series of three-story townhomes (39 units) fronting East 12th Street, and four separate, seven- to 12-story multifamily buildings (467 units). The 467 units in the multifamily buildings will be set back from East 12th Street and located behind the townhomes. **Figure III-4**, Site and Ground Floor Plan, details the ground-floor for each development site. Three of the multifamily buildings (Sites II through IV) would contain ground-floor commercial spaces totaling nearly 13,000 square feet that would front East 12th Street (approximately 2,900 square feet in Sites II and III; 7,110 square feet in Site IV), and Site IV would include an approximately 5,000 square-foot education center that would also front East 12th Street. Parking for all uses west of 29th Avenue (Sites I through IV), including the townhomes, would occur on the first two to three levels of each multifamily building and would not be visible from the street. Vehicles would access and egress this portion of the project site and all parking levels from new driveways off East 12th Street.

Development east of 29th Avenue would consist of 300 units in two residential towers of approximately fifteen and sixteen stories each (296 units), and four 3-story townhomes fronting East 12th Street. In addition to the townhomes, approximately 13,000 square feet of commercial space and 3,470 square feet of project office space (for project leasing and management, etc.) would occur on the ground floor and front East 12th Street. Parking would occur on the first two levels of the tower buildings, behind the street-fronting commercial and office uses along East 12th Street, and would be accessed by new driveways from 29th Avenue and Derby Avenue. As with the buildings west of 29th Avenue, the ground-floor parking level would be partially submerged (about one-half story) along the southern edge of the site.

Figure III-5, Proposed Project Massing, presented below, conveys each site development as well as the relative building heights described throughout this section.



SOURCE: MBH Architects

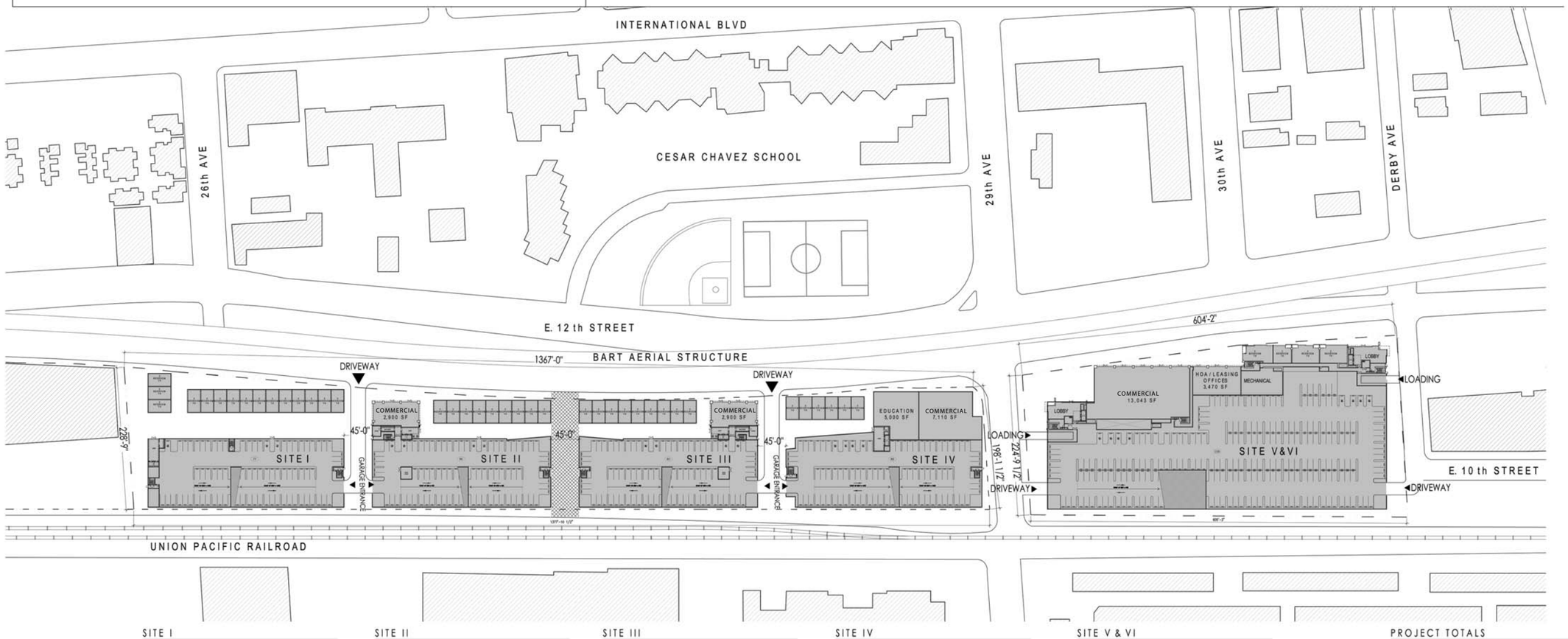
Figure III-3
Master Development Plan

NOTES

1. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS GOVERN ALL PARTITION LOCATIONS. IN CASE OF CONFLICT, NOTIFY ARCHITECT BEFORE PROCEEDING. FLOOR PLAN BY ARCHITECT SUPERSEDES OTHER PLANS. VERIFY EXACT LOCATIONS IN FIELD.
2. ALL EXTERIOR DIMENSIONS ARE ESTIMATED.
3. REFER TO CIVIL DRAWINGS FOR SITE GRADE, SITE UTILITY, & CITY STANDARD SITE IMPROVEMENT DETAILS.
4. REFER TO LANDSCAPE DRAWINGS FOR SITE PLANTING, SITE DRAINAGE, STREET TREE & IRRIGATION IMPROVEMENTS & DETAILS.
5. REFER TO SURVEY DRAWINGS FOR EXISTING PROPERTY LINE LOCATIONS AND DIMENSIONS.
6. ACCESSIBLE ROUTE NOT TO EXCEED 2% SLOPE.

LEGEND

- EXISTING PROPERTY LINE
- SCOPE OF WORK
- EXISTING ADJACENT BUILDING
- PUBLICLY ACCESSIBLE OPEN SPACE



True North / North for purposes of document

SITE I		SITE II		SITE III		SITE IV		SITE V & VI		PROJECT TOTALS	
APROXIMATE SITE AREA	78,500 S.F.	APROXIMATE SITE AREA	61,600 S.F.	APROXIMATE SITE AREA	60,000 S.F.	APROXIMATE SITE AREA	65,750 S.F.	APROXIMATE SITE AREA	159,600	APROXIMATE SITE AREA	425,250 S.F.
PARKING AREA TOTAL 3 FLOORS X 32,000 S.F.	96,000 S.F.	PARKING AREA TOTAL 2 FLOORS X 30,500 S.F.	61,000 S.F.	PARKING AREA TOTAL 2 FLOORS X 30,500 S.F.	61,000 S.F.	PARKING AREA TOTAL 2 FLOORS X 32,000 S.F.	64,000 S.F.	PARKING AREA TOTAL 2 FLOORS X 90,500 S.F.	181,000 S.F.	PARKING AREA TOTAL	463,000 S.F.
COMMERCIAL	0 S.F.	COMMERCIAL	2,900 S.F.	COMMERCIAL	2,900 S.F.	COMMERCIAL	7,110 S.F.	COMMERCIAL	13,040 S.F.	COMMERCIAL	25,950 S.F.
RESIDENTIAL TOWNHOUSE 15 UNITS X 720 S.F. 3 FLOORS X 10,800 S.F.	32,400 S.F.	RESIDENTIAL TOWNHOUSE 9 UNITS X 720 S.F. 3 FLOORS X 6,480 S.F.	19,440 S.F.	RESIDENTIAL TOWNHOUSE 9 UNITS X 720 S.F. 3 FLOORS X 6,480 S.F.	19,440 S.F.	EDUCATION	5,000 S.F.	HOA/LEASING OFFICES	3,470 S.F.	HOA/LEASING OFFICES	3,470 S.F.
MAIN RES BLDG 8 FLOORS X 26,750 S.F. 2 FLOORS X 10,200 S.F.	234,400 S.F.	MAIN RES BLDG 4 FLOORS X 29,650 S.F. 2 FLOORS X 25,788 S.F. 1 FLOOR X 6,150 S.F.	176,326 S.F.	MAIN RES BLDG 3 FLOORS X 29,650 S.F. 1 FLOOR X 26,584 S.F. 1 FLOOR X 6,150 S.F.	121,684 S.F.	RESIDENTIAL TOWNHOUSE 6 UNITS X 720 S.F. 3 FLOORS X 4,320 S.F.	12,960 S.F.	RESIDENTIAL TOWNHOUSE 4 UNITS X 720 S.F. 2 FLOORS X 2,880 S.F.	5,760 S.F.	EDUCATION	5,000 S.F.
RESIDENTIAL TOTAL	266,800 S.F.	RESIDENTIAL TOTAL	195,766 S.F.	RESIDENTIAL TOTAL	141,124 S.F.	MAIN RES BLDG 5 FLOORS X 21,100 S.F. 1 FLOOR X 6,150 S.F.	111,650 S.F.	MAIN RES BLDG 13 FLOORS X 15,250 S.F. 14 FLOORS X 15,250 S.F.	411,750 S.F.	RESIDENTIAL TOWNHOUSE	90,000 S.F.
						RESIDENTIAL TOTAL	124,610 S.F.	RESIDENTIAL TOTAL	417,510 S.F.	MAIN RES BLDG	1,055,810 S.F.
										RESIDENTIAL TOTAL	1,145,810 S.F.

SOURCE: MBH Architects, 2007

Figure III-4
Site and Ground Floor Plan

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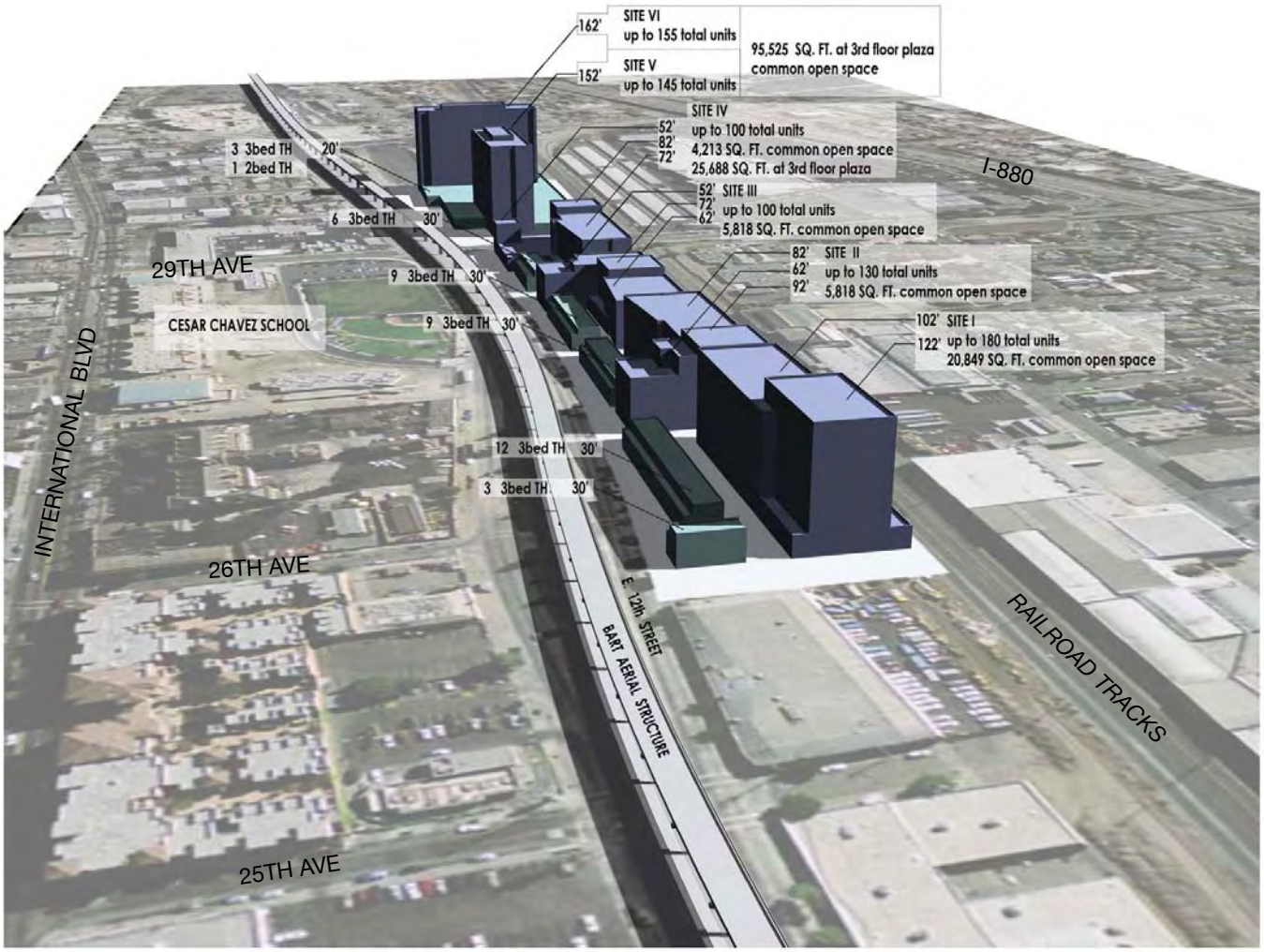

SOURCE: MBH Architects, 2007

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Figure III-5
Proposed Project Massing

Comparison to Previous Project Scenarios

As discussed previously in this chapter, subsequent to publication of the NOP for this EIR, Pacific Thomas Capital modified aspects of the NOP project scenario in response to community and City input received. **Table III-1**, Project Modifications since Publication of the NOP, shown below, summarizes and compares the project as described in the NOP compared to the description provided and analyzed herein. The notable differences relevant to the environmental analysis involve the proposed project's 1) reduced number of residential units and commercial space, 2) increased building heights and distribution of height onsite, and 3) location/distribution of commercial spaces and access. Overall, the EIR analyzes a smaller project than the NOP scenario in terms of square footage and residential unit count, and while some buildings are taller than previously described, the difference is not substantial and other modifications made to the NOP scenario result in lesser environmental effects associated with building height. Thus, the City has determined that the NOP provides adequate public notice and description of the project proposed.

TABLE III-1
PROJECT MODIFICATIONS SINCE PUBLICATION OF THE NOP

	NOP Project	Proposed Project	Summary of Change
Total number of units	881	810	71 fewer units
Type of units	881 condominiums	767 condominiums 43 townhomes	Diversification of the unit types
Number of stand-alone commercial buildings	1	none	Elimination of stand-alone commercial building; Distribution of commercial space throughout residential buildings
Number of residential buildings	5	6	Replace stand-alone commercial building with new residential building
Commercial space	42,100 sf of commercial "flex" space	Approximately 25,950 sf of commercial space	Approximately 12,100 sf less commercial space
Indoor community space	None	5,000-sf community education facility	Addition of community education facility
Parking	1,344 parking spaces	1,121 parking spaces	223 fewer spaces
Phasing	4 phases over unspecified time period	6 phases over approx. 15 to 20 years	Extended phasing to allow consideration of market conditions
Building heights	1 to 11 stories	3 to 16 stories	The NOP described one 1-story retail building, five 6-story multifamily buildings, and one 11-story multifamily building. The project proposes three-story townhomes in front of four 7- to 12-story multifamily buildings and two towers of 15 and 16 stories.
Location of commercial uses	Ground-floor commercial space in each of the six residential building – ranging from 6,400 to 9,700 sf	Ground-floor commercial space in five of the six residential buildings – ranging from 2,900 to 13,040 sf	Enlarged single ground-floor commercial space (13,040 sf) in Site V; removed commercial space from Site VI
Project site acreage	Approx. 10 acres	Approx. 9.7 acres	Elimination of land beyond 26th Avenue.

SOURCE: MBH Architects (2007); Pacific Thomas Capital (2007).

Detailed Project Description

The following discussion describes the major components and characteristics of the proposed Gateway Community Development Project introduced above.

Proposed Phasing

As previously discussed in this chapter, development of the proposed project through the PUD procedure would be developed in six phases over a period of approximately15 to 20 years. Buildout is projected to be 2025. Existing development on the project site would be demolished incrementally as each project development site or sites are implemented over time. The project sponsor anticipates constructing a new building every two years, depending on market conditions. While the specific program for a particular development site may change during that period, any future changes would not substantially exceed the development program described below. A detailed phasing schedule will be established by the terms of the Development Agreement that Pacific Thomas Capital and the City of Oakland would enter into. Specifically, Sites I through IV would be developed in accordance with the Development Agreement and the Preliminary Development Plan for the PUD. Sites V and VI would be developed in accordance with the Development Agreement. (To the extent that future changes could exceed the environmental impacts identified in this EIR, further environmental review would be conducted pursuant to CEQA Guidelines Sections 15162 through 15164 as well as Public Resources Code section 21166.)

The proposed project analyzed in this EIR is summarized in **Table III-2**, Proposed Project Summary by Development Site. Narrative descriptions of each site are presented under *Detailed Site Development*, further below in this chapter.

Major Project Components

Residential Units

The project would construct up to 810 residential units consisting of 767 condominium units and 43 townhomes. As indicated previously, the condominium units would be built in four multifamily buildings and two towers. Each of the development sites (Sites I through VI) would contain one multifamily building or tower, and Sites I throughout V would include a separate complex of townhomes fronting East 12th Street. (See **Figures III-3 through III-5** and **Table III-2,** above.) Nearly 60 percent (510 units) of the residential units would occur on Sites I through IV, west of 29th Avenue, and nearly 40 percent (300 units) would occur on Sites V and VI in the two towers east of 29th Avenue (see **Figure III-3** and **Table III-2**).

Although preliminary and subject to change, the project proposes a mix of one-bedroom flats (48 percent), two-bedroom flats (37 percent), three-bedroom flats (10 percent), and two- and three-bedroom

TABLE III-2
PROPOSED PROJECT SUMMARY BY DEVELOPMENT SITE

Site No.	No. of Stories / Height (to Roof)	No. of Units , Gross Density; FAR[a]	No. of Residential Parking Spaces per Unit	Commercial Space (sf)	No. of Commercial Parking Spaces	Other Uses
I	Townhomes: 3 stories / 30 ft. Multifamily Building: 12 stories /122 ft.	180 units (165 multifamily / 15 townhomes) 100 units / gross acre; 3.4 FAR	220 spaces (1.20 spaces / unit)	0	0	
II	Townhomes: 3 stories / Multifamily Building: 9 stories 92 ft.	130 units (121 multifamily / 9 townhomes) 93 units / gross acre; 3.2 FAR	143 spaces (1.10 spaces / unit)	Approximately 2,900 sf	0	
III	Townhomes: 3 stories / 30 ft. Multifamily Building: 7 stories / 72 ft.	100 units (91 multifamily / 9 townhomes) 73 units / gross acre; 2.4 FAR	144 spaces (1.54 spaces / unit)	Approximately 2,900 sf	0	
IV	Townhomes: 3 stories / 30 ft. Multifamily Building: 8 stories / 82 ft.	100 units (94 multifamily / 6 townhomes) 66 units / gross acre; 2.1 FAR	138 spaces (1.38 spaces / unit)	Approximately 7,110 sf	24 spaces	5,000-sf community education facility
V	Townhomes: 3 stories / 30 ft. Residential Tower: 15 stories / 152 ft.	145 units (145-unit residential tower) 82 units / gross acre; 2.7 FAR[b]	205 spaces (1.40 spaces / unit)	Approximately 13,040 sf	41 spaces	
VI	Townhomes: 3 stories / 30 ft. Residential Tower: 16 stories / 163 ft.	155 units (151 residential tower / 4 townhomes) 82 units / gross acre; 2.7 FAR[b]	206 spaces (1.32 spaces / unit)	0	0	3,470-sf project offices (HOA, leasing, etc.)
Totals	**-**	**810 units (approx.)** **(471 multifamily / 296 residential tower/ 43 townhomes)** **84 units / gross acre; 2.7 FAR**	**1,056 spaces (approx.)** **(1.30 spaces / unit)**	Approximately **25,950 sf (approx.)**	**65 spaces (approx.)**	

[a] Floor area ratio (FAR) is the gross floor area of a building divided by total site area, excluding parking.
[b] Sites V and VI combined.

SOURCE: MBH Architects (2007); Pacific Thomas Capital (2007).

townhomes[4] (5 percent). As shown in **Figure III-6**, Typical Unit Floor Plan – Site I, one- and two-bedroom condominium units would range in size from approximately 950 square feet (smallest one-bedroom units) to approximately 2,000 square feet (largest two-bedroom units). Three-bedroom condominiums would be approximately 2,100 square feet. **Figure III-6** shows that the three-story townhomes would be approximately 2,160 square feet (approximately 720 square feet per floor). **Figure III-7**, Ground Floor Plan – Site II depicts the ground floor levels of three-bedroom townhomes (approximately 720 square feet each floor). The proposed project would result in an overall residential density of approximately 84 units per gross acre (810 total units on 9.7 acres) and an overall floor area ratio of 2.7.

Commercial Space

The project would provide approximately 25,950 square feet of ground-floor commercial space on four of the six development sites (see **Table II-2** and **Figure III-3**). The commercial spaces would front East 12th Street and aligned with the proposed townhomes. Commercial uses anticipated for the project include small neighborhood- and project-serving businesses that would complement existing goods and services available to the area. Commercial spaces would range from approximately 2,900 square feet on Sites II and III, to larger spaces of approximately 7,110 and 13,040 square feet on Sites IV and V, respectively, at intersection of East 12th Street and 29th Avenue. No commercial space would be provided on Sites I or VI.

The project also proposes ground-floor, street-fronting space for a 5,000 square-foot space community education use (see *Community Education Facility*, discussed below) on Site IV. Additionally, an approximately 3,470 square-foot space is proposed for project office uses, such as homeowners association (HOA) or property leasing functions on Site VI.

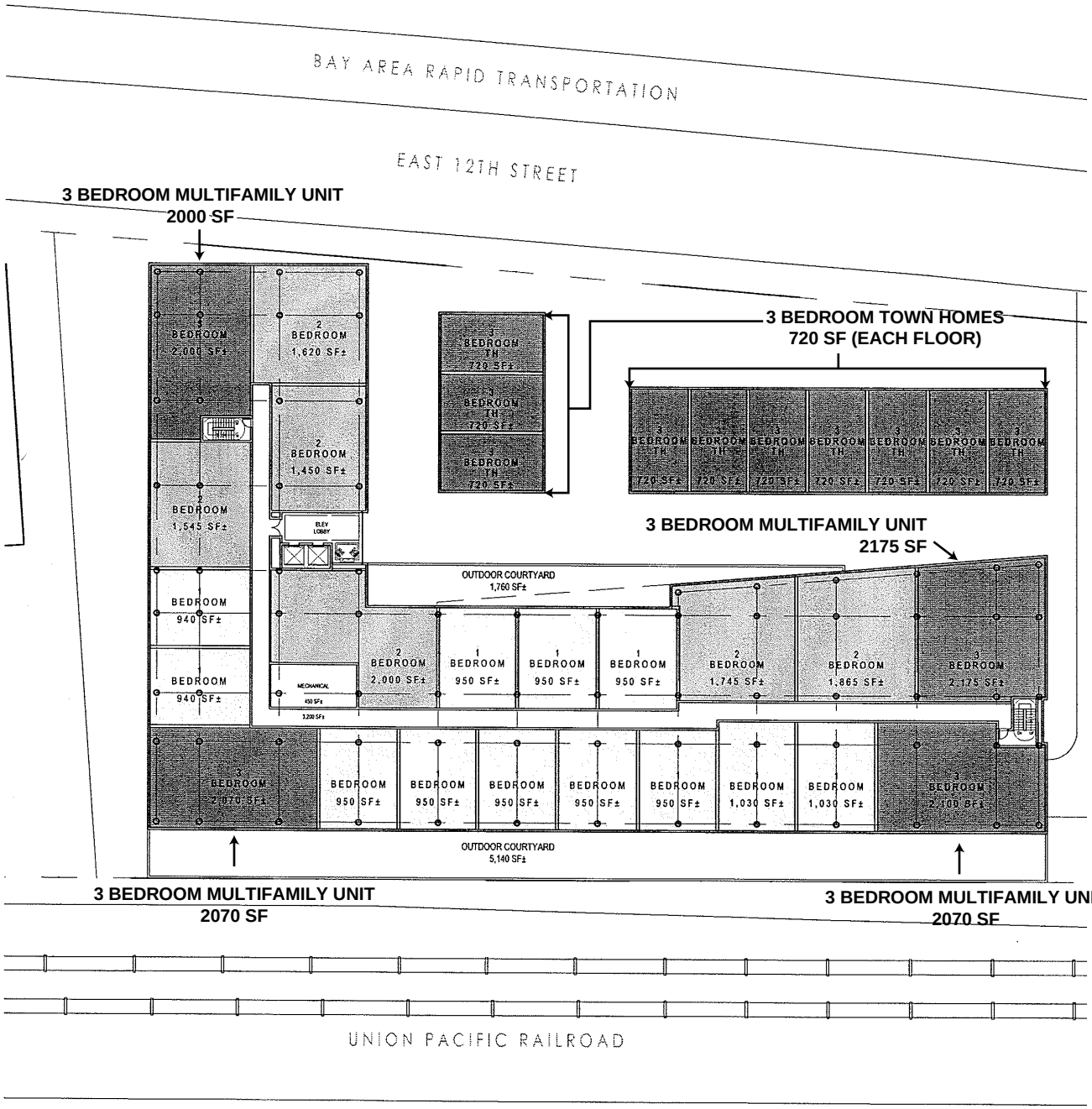
Community Education Facility

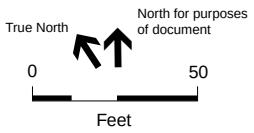
As indicated above, Site IV would include an approximately 5,000 square-foot space envisioned for use as a community education facility to serve local children (within the project vicinity). Pacific Thomas Capital proposes to develop a high tech, multi-media (digital film-making, web-design, software programming, digital music production, etc.) education center that could operate during and after traditional school hours. This element of the project is intended as a community benefit to be incorporated into the proposed Development Agreement between the City of Oakland and Pacific Thomas Capital.

Specific considerations for the facility include any one of the following functions:

- a charter school for a non-profit organization specializing in high tech, multi-media educational programs and serving up to 100 students;
- an extension of an existing elementary school in the immediate area;
- a programmatic facility for the three existing elementary schools in the area (Lazear, Think College Now, and International Community School) or a new middle school directly serving a subset of the graduating students of one or all of these existing elementary schools.

[4] A single, two-bedroom townhome is proposed in Site VI; all other townhomes (42 units) are proposed as three-bedroom).





SOURCE: MBH Architects, 2006.

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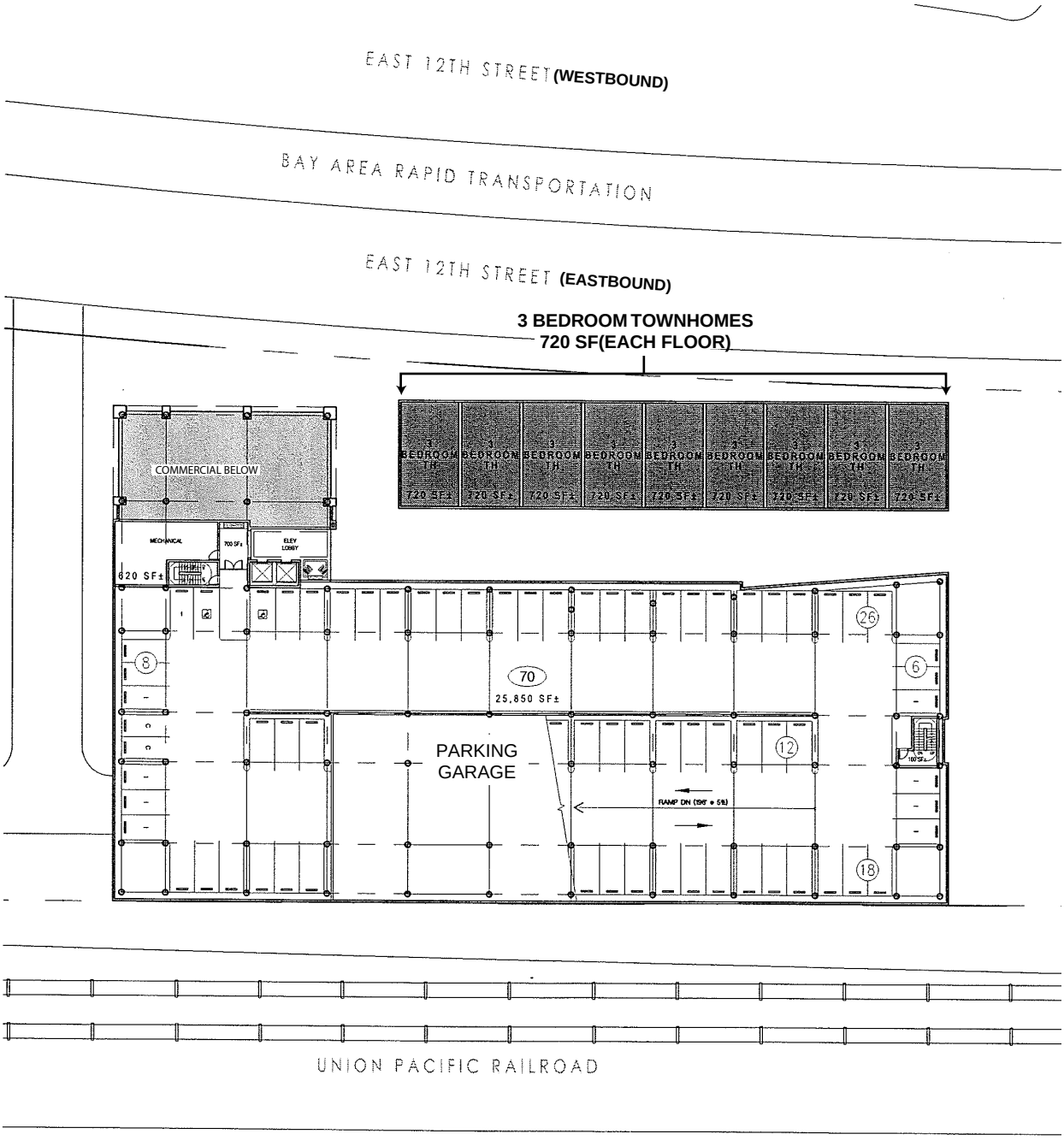
Figure III-6
Typical Unit Floor Plan
Site I



True North

North for purposes of document

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SOURCE: MBH Architects, 2006.

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Figure III-7
Ground Floor Plan
Site II

While the specifics of the Community Education Facility would be finalized during the final design and development of Site IV, the use is part of the proposed project and considered in the analysis conducted for this EIR. Key considerations are that the facility could be used during traditional school hours, after traditional school hours (generally 3:00 to 6:00 PM) by the school or non-profit organization that operates the school-hour programs. After-peak-hour periods (generally 6:00 to 9:00 PM, immediately following the traditional after-school hours of use, 3:00 to 6:00 PM), the facility could also be open to the community youth on a programmatic or drop-in basis, similar to the current system developed for the open gym/open field programs at the neighboring Cesar Chavez Educational Center.

Parking and Circulation

The project would provide a total of 1,121 parking spaces in buildings across the site – 1,056 residential spaces and 75 commercial spaces (including those for the proposed educational use). The project would provide an average of 1.30 spaces per residential unit project-wide and an average of approximately 1 space per 400 square feet of commercial use area. Although it is not part of this assessment of the project's environmental effects under CEQA, this complies with the City's Planning Code requirements for off-street parking for residential and commercial uses. Further, the proposed parking supply meets the parking demand estimated by the Institute of Transportation Engineers (ITE) for commercial uses, however, residential parking demand estimated by ITE for the project is approximately 1,263 spaces – approximately 142 more than proposed.

Parking for residential uses (including the townhomes that would be detached from the multifamily buildings) would be located on the first three levels of the multifamily building on Site I and on the first two levels of the multifamily buildings on Sites II through IV and the residential towers on Sites V and VI. The ground-floor parking levels on each site would be partially submerged (about one-half story) along the southern border of the site, along the existing railroad tracks. Parking for commercial uses would be located on the first level of the multifamily building on Site IV and the residential tower on Site V, near the larger commercial spaces proposed at the intersection of 29th Avenue and East 12th Street.

Figure III-4, Site and Ground Floor Plan, identifies the proposed access to the project site. West of 29th Avenue, vehicles would access and egress the project site from two new driveways off East 12th Street between Sites I and II, and Sites III and IV. These driveways would connect directly to the building entrances to the parking levels toward the rear (south) of the site, away from East 12th Street. The project proposes two cuts through the East 12th Street median (under the elevated BART tracks) to allow for left turns in and out of the site at the proposed driveways from East 12th Street. East of 29th Avenue, vehicles would access and egress the site from two new driveways off 29th Avenue and Derby Avenue, near the adjacent railroad tracks. Two freight loading facilities for commercial uses are proposed off 29th Avenue and off Derby Avenue for Sites V and VI. Loading facilities for non-freight (e.g., small trucks, van, automobile deliveries) also would be located in each of the multifamily buildings to accommodate residential uses (Sites I through VI) and serve smaller commercial spaces (Sites II through IV).

Useable Open Space and Landscaping

The project would provide a mix of private ("individual") and group ("common") usable open space areas for project residents and tenants, as well as usable open space areas that would be accessible to the public. As delineated in **Figures III-8a and 8b**, Open Space Calculation, the project proposes a total of approximately 157,911 square feet of common open space located at grade, primarily between the multifamily buildings and clustered rows of townhomes on Sites I through IV, and on the third floor plaza levels of Sites IV, V and VI. In addition, the project proposes approximately 33,300 square feet of private open space in the form of private yards at grade for townhomes and private decks for a portion of multifamily and residential tower units above grade.

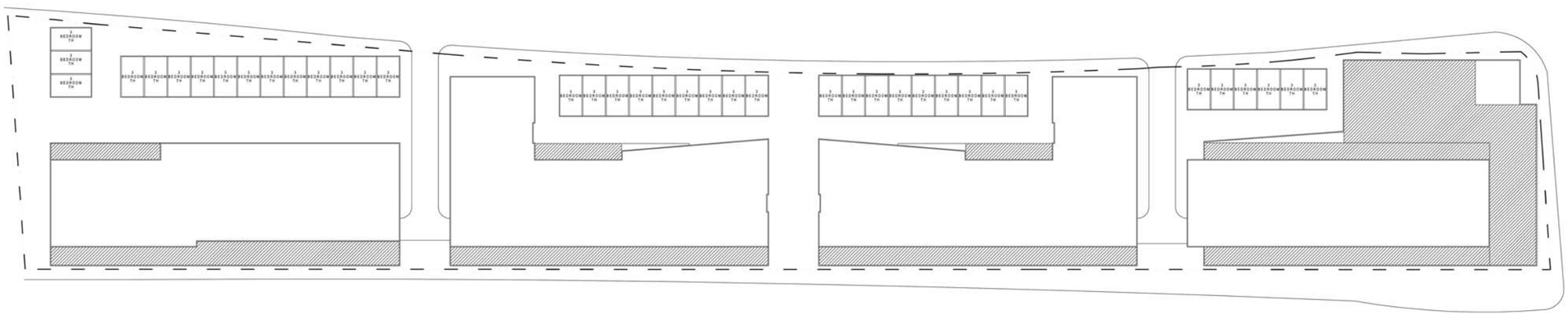
The project proposes to distribute private and common usable open space throughout the project site as allowed by Chapter 17.126 (Open Space Standards) and Chapter 17.122 (PUD Development Standards) of the Oakland Planning Code; thus each 1.0 square foot of required private usable open space is considered to be equal to every 2.0 square feet of required common usable open space. As discussed below under *General Plan Amendment and Rezoning*, the project proposes a rezoning to the C-45 Community Shopping Commercial Zone. The C-45 Zone (pursuant to the R-80 High-Rise Apartment Residential Zone to which C-45 refers) requires 150 square feet of common space per unit, or alternatively, 75 square of private space for each unit or any equivalent combination of common and private space. The project proposes to satisfy the Planning Code requirements by providing 150 square feet of common space designated for 366 units (150 square feet each or 157,911 square feet total) and by providing 75 square feet of private open space areas for 444 units (33,300 square feet total).

In addition (and not calculated within the estimates presented above), the project would also provide approximately 8,000 square feet of publicly-accessible linear open space and children's park between Sites II and III as part of the Development Agreement. While proposed within the project site boundaries, this space would be accessible to the public as well as project residents and tenants.

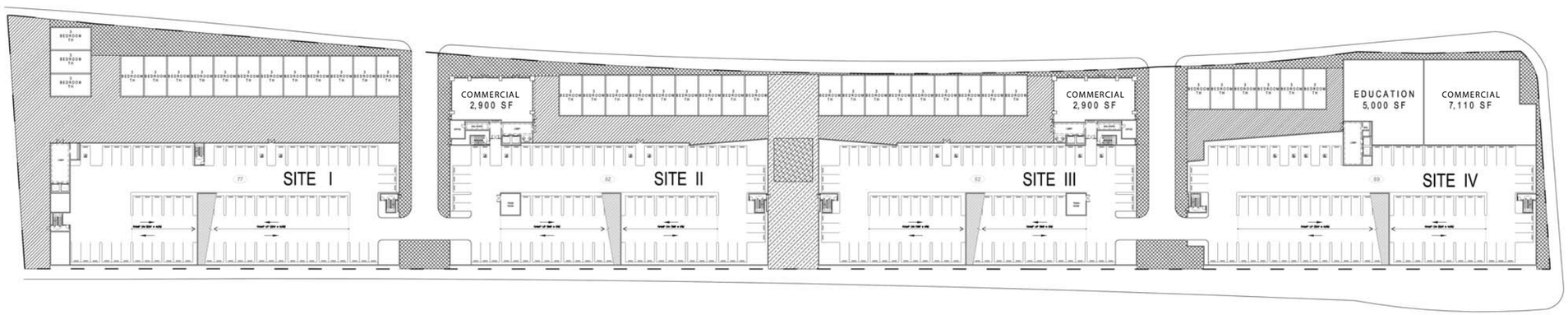
Linear landscaped areas are also proposed along the perimeter streets (East 12th Street, 29th Avenue, and Derby Avenue), along the railroad tracks along the south boundary of the site, along internal project driveways, and within building courtyards and parking podiums as space allows. The project sponsor would prepare and submit for review and approval by the City a detailed landscape plan for all areas of development, pursuant to PUD Procedures (Oakland Planning Code, Chapter 17.140).

Building Height, Massing, and Site Design

The maximum heights of the proposed project buildings range from approximately 3 to 16 stories. **Figure III-5**, Massing Study, best depicts the up to twelve-story (or approximately 122 feet) multifamily building on Site I at the western end of the development, and the up to fifteen- and sixteen-story (or approximately 152 and 162 feet, respectively) residential towers on Sites V and VI at the eastern end of the development. Multifamily buildings on the intervening Sites II through IV would range from seven to nine stories (or approximately 72 to 92 feet). As illustrated conceptually in **Figure III-5**, each building would have variations in height, with stepbacks and cutouts articulating the building masses. The townhomes proposed on Sites I through IV west of 29th Avenue



3RD FLOOR PLAZAS



GROUND LEVEL

SITE I
PRIVATE OPEN SPACE PROVIDED:
90 UNITS X 75 SQ. FT. = 6,750 SQ. FT.

COMMON OPEN SPACE REQUIRED:
90 UNITS X 150 SQ. FT. = 13,500 SQ. FT.
20,849 SQ. FT. AT GRADE PROVIDED

SITE II
PRIVATE OPEN SPACE PROVIDED:
92 UNITS X 75 SQ. FT. = 6,900 SQ. FT.

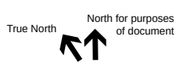
COMMON OPEN SPACE REQUIRED:
38 UNITS X 150 SQ. FT. = 5,700 SQ. FT.
5,818 SQ. FT. AT GRADE PROVIDED

SITE III
PRIVATE OPEN SPACE PROVIDED:
62 UNITS X 75 SQ. FT. = 4,650 SQ. FT.

COMMON OPEN SPACE REQUIRED:
38 UNITS X 150 SQ. FT. = 5,700 SQ. FT.
5,818 SQ. FT. AT GRADE PROVIDED

SITE IV
PRIVATE OPEN SPACE PROVIDED:
50 UNITS X 75 SQ. FT. = 3,750 SQ. FT.

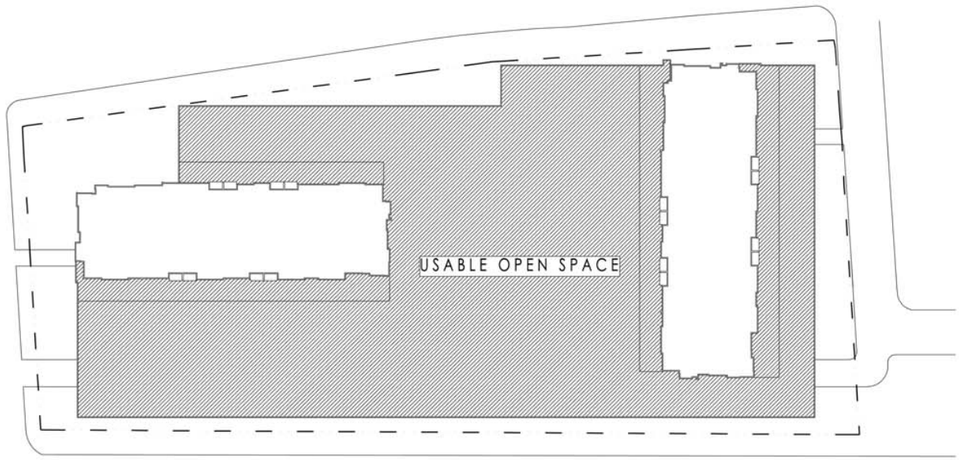
COMMON OPEN SPACE REQUIRED:
50 UNITS X 150 SQ. FT. = 7,500 SQ. FT.
4,213 SQ. FT. AT GRADE PROVIDED
25,688 SQ. FT. AT 3RD FLOOR PLAZA PROVIDED



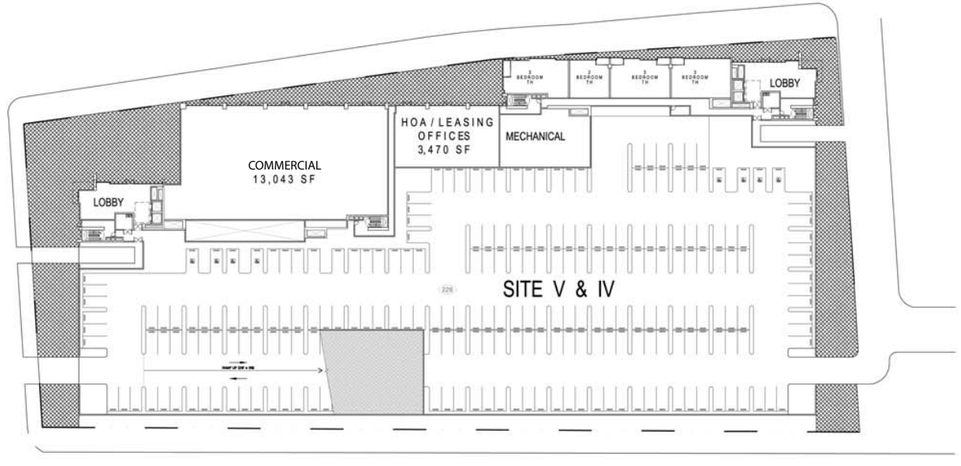
USABLE OPEN SPACE
LANDSCAPE AREAS
PUBLICLY ACCESSIBLE OPEN SPACE
CHILDRENS PLAY AREA

SOURCE: MBH Architects, 2007

Figure III-8a
Open Space - Sites I-IV



3RD FLOOR PLAZA



GROUND LEVEL

True North

North for purposes of document

USABLE OPEN SPACE

LANDSCAPE AREAS

SITE V

PRIVATE OPEN SPACE PROVIDED:
72 UNITS X 75 SQ. FT. = 5,400 SQ. FT.

COMMON OPEN SPACE REQUIRED:
73 UNITS X 150 SQ. FT. =10,950 SQ. FT.
42,069 SQ. FT. AT 3RD FLOOR PLAZA PROVIDED

SITE VI

PRIVATE OPEN SPACE PROVIDED:
78 UNITS X 75 SQ. FT. = 5,850 SQ. FT.

COMMON OPEN SPACE REQUIRED:
77 UNITS X 150 SQ. FT. =11,550 SQ. FT.
53,456 SQ. FT. AT 3RD FLOOR PLAZA PROVIDED

TOTAL COMMON OPEN SPACE FOR BUILDING V & VI
95,525 SQ. FT.

TOTALS FOR PROJECT:

PRIVATE OPEN SPACE PROVIDED:
444 UNITS X 75 SQ. FT. = 33,300 SQ. FT.

COMMON OPEN SPACE REQUIRED:
366 UNITS X 150 SQ. FT. =54,900 SQ. FT.

COMMON OPEN SPACE PROVIDED:
157,911 SQ. FT.

PUBLICLY ACCESSIBLE:
PARK SPACE:
8,000 SQ. FT.

SOURCE: MBH Architects, 2007

Figure III-8b
Open Space - Sites V-VI

would be three stories (or approximately 30 feet), and those on Sites V and VI east of 29th Avenue would be two stories (or approximately 20 feet), with larger footprints than the 30-foot townhomes.

The proposed project would result in a 2.7 floor area ratio for the entire site. Floor area ratio for the individual sites would range from 2.1 (Site IV) to 3.4 (Site I).

The proposed overall configuration of buildings on the project site was largely influenced by input from project-sponsored community meetings and City staff. The taller multifamily buildings and tower are located to the "rear" of the site, closest to the railroad tracks, and the three-story townhomes are sited to front East 12th Street to step down to existing nearby development along that corridor and maintain the taller buildings away from East 12th Street. As indicated above, the site design also includes a landscaped setback from East 12th Street, and open spaces between the townhomes and multifamily buildings on the sites east of 29th Avenue.

Given the phased development of the project pursuant to the PUD procedures and the Development Agreement, final design review of the FDP for any one of more of the development sites could result in modifications to the project design described in this EIR Project Description, particularly for later phases. To the extent that such changes are substantial or could result in new physical impacts under CEQA, further environmental review could be required pursuant to Public Resources Code Section 21166 and CEQA Guidelines Sections 15162 through 15164.

Sustainable Design Principles

Pacific Thomas Capital has identified as an objective for the proposed project the incorporation into the project, to the greatest extent feasible site, of site and building design principles and standards that promote sustainable development. The project sponsor will work with the City of Oakland during the review and development of the project to identify specific sustainable construction and operational and standards that would be appropriate for the project and that support goals to increase energy efficiency. Looking to guidance provided by existing programs, such as the *GreenPoint* Rated (a program of Build It Green, sponsored by a number of Bay Area public agencies and jurisdictions) or LEED standards (Leadership in Energy and Environmental Design Green Building Rating System™, the nationally accepted benchmark for the design, construction, and operation of high performance green buildings), the project sponsor would consider for example, use of exceptionally durable and/or reused materials; materials that avoid toxic emissions; equipment and fixtures that conserve energy; maximizing efficient and natural lighting and ventilation; maximizing on-site landscaping, including above-grade; and exceeding Provision C.3 standards regulating post construction stormwater runoff, etc. The above considerations would combine with the project's

inherent sustainability merit garnered by its proximity to multiple modes of transit and existing pedestrian facilities – supporting the City's General Plan of facilitating use of alternative modes of transportation.

Utilities and Site Preparation

Although utilities are currently available from existing connections, the project sponsor may be required to upgrade, expand, or extend water, electrical, and gas lines at the site to adequately serve

the proposed project and are considered components of the project. Some of these activities would require trenching in East 12th Street and potentially in 29th Avenue and Derby Avenue and are analyzed within this document.

The proposed project would require removal of all existing buildings and trees on the site. Existing buildings would be demolished as incremental development progresses across the project site. For example, development of Site I would require that a portion of the existing self-storage facility on the site be demolished, however, the remainder of the facility would remain for the business to continue to operation on a limited basis while Site I is under construction.

Detailed Site Development

As discussed throughout this chapter, the proposed project would be developed in six phases over a period of approximately 15 to 20 years. The first phase of construction (which could involve any one or more of the six development sites) would begin within five years of the project approvals, and construction of each subsequent phase would begin every two to four years thereafter. The project sponsor proposes to allow each development site to be fully constructed and occupied before initiating construction on another; however, the overall project time schedule for development would be set forth in the Development Agreement for the project. Development sites may or may not be developed in numerical order, depending on market conditions. As mentioned above, Sites I through IV would be developed in accordance with the Preliminary Development Plan for the PUD. Sites V and VI would be developed in accordance with the Development Agreement. For purposes of this environmental analysis, project buildout is assumed to occur by year 2025. Consistent with the information provided in **Table III-2,** Existing Conditions, and **Figure III-4**, Site and Ground Floor Plan, the following describes the development proposed on each development site in particular.

Site I

Site I of the project would consist of up to 180 units in a twelve-story multifamily building (165 condominiums) and fifteen 3-story townhomes. Approximately 220 residential parking spaces would be provided on the first three levels of the multifamily building and be accessed from the east end of the building via a driveway from East 12th Street, between Sites I and II. This phase of development would not include any commercial space. Construction of this site would result in demolition of portion of the existing self-storage facility.

Site II

Site II of the project would consist of up to 130 units in a nine-story multifamily building (121 condominiums) and nine 3-story townhomes. Approximately 2,900 square feet of commercial space would be provided on the ground floor of the multifamily building and front East 12th Street. Approximately 143 residential parking spaces would be provided on the first two levels of the multifamily building and be accessed from the west end of the building via a driveway from East 12th Street, between Sites I and II. Development of this site would result in the demolition of another portion of the existing self-storage facility

Site III

Site III of the project would consist of up to 100 units in an up to seven-story multifamily building (91 condominiums) and nine 3-story townhomes. Approximately 2,900 square feet of commercial space would be provided on the ground floor of the multifamily building and front East 12th Street. Approximately 144 residential parking spaces would be provided on the first two levels of the multifamily building and be accessed from the east end of the building via a driveway from East 12th Street, between Sites II and III. Development of this site would result in the demolition of a portion of the existing self-storage facility and related offices.

Site IV

Site IV of the project would consist of up to 100 units in an up to eight-story multifamily building (94 condominiums) and six 3-story townhomes. Approximately 7,110 square feet of commercial space would be provided on the ground floor, fronting East 12th Street and 29th Avenue. A total of approximately 138 residential parking spaces and 24 commercial spaces would be provided on the first two levels of the multifamily building and be accessed from the west end of the building via a driveway from East 12th Street, between Sites III and IV. This site would also incorporate approximately 5,000 square feet for an educational center adjacent to the ground-floor commercial space.

Site V

Site V of the project would consist of up to 145 condominiums in an up to fifteen-story tower. This site would include approximately 13,040 square feet of ground floor commercial space and a 3,470 square-foot project office space. Approximately 205 residential parking spaces and 41 commercial spaces for Site V would be provided on two levels of the residential tower garage that would serve both Site V and VI. Parking would be accessed primarily from 29th Avenue, with access to the parking levels also provided from Derby Avenue. Development of this site would result in the demolition of existing auto repair/maintenance shop commercial uses and the California Department of Transportation (Caltrans) South Oakland Maintenance Facility along the railroad tracks.

Site VI

Site VI of the project would consist of up to 155 units in an up to sixteen-story tower (151 condominiums) and four 2-story loft style townhomes along East 12th Street. Approximately 206 residential parking spaces for Site VI would be provided on two levels of the residential tower garage that would serve both Site V and VI. Parking would be accessed primarily from Derby Avenue with access to the parking levels also provided from 29th Avenue. Like Site V, development of this site would result in the demolition of existing auto repair/maintenance shop commercial uses and the California Department of Transportation (Caltrans) South Oakland Maintenance Facility along the railroad tracks.

Other PUD Requirements for Site Development

Pursuant to the City's PUD Procedures (Oakland Planning Code Chapter 17.140), the PDP (as described in this chapter) will specif project streets; driveways; sidewalks; pedestrian ways; off-

street parking and loading areas; location and approximate dimensions of structures; utilization of structures; landscaping features; and drawings and elevations that clearly establish the scale, character, and relationship of buildings, streets, and open space. Prior to development of each site, the project sponsor would be required to prepare and obtain approval of a FDP that provides more detailed building and landscaping plans and elevations; plans for street improvements; grading or earth-moving plans; the location of water, sewer, and drainage facilities; among other detailed documents regarding site development. The PUD process provides flexibility in making design adjustments and responding to market conditions as the project develops. To the extent that CEQA requires, further environmental review would be conducted pursuant to Public Resources Code section 21166 and CEQA Guidelines Sections 15162 through 15164.

General Plan Amendment and Rezoning

The project requires approval of a General Plan Amendment and Rezoning to allow the land uses and residential densities proposed by the project. Evaluated as part of the proposed "action" analyzed in this EIR, the requested General Plan Amendment would change the existing General Plan land use classifications on the site. The site is currently designated with following classifications:

- *Regional Commercial* (which allows residential use up to 125 units per acre);
- *Mixed Housing Type Residential* (which allows residential uses at 30 units per gross acre); and
- *Business Mix* (which allows commercial, light industrial, and manufacturing uses).

After the General Plan Amendment, the entire site would be located within the *Community Commercial* land use classification, which would allow the proposed uses and residential densities proposed by the project. Since the Oakland Coliseum Area Redevelopment Plan is consistent with the existing General Plan land use diagram, the project would be required to also amend the Coliseum Area Redevelopment Plan to accommodate the proposed uses and residential densities.

The Rezoning would change the project site's existing M-30 General Industrial Zone, which prohibits residential use, to the C-45 Community Shopping Commercial Zone, which allows the project's proposed high-density residential uses and commercial uses as proposed for the project. The Rezoning would also apply the S-4 Design Review Combining Zone, which establishes procedures for the design review of new and altered structures.

Development Agreement Components of the Project

As previously mentioned, Pacific Thomas Capital and the City of Oakland intend to enter into a Development Agreement that would establish terms for several aspects of the project as it development over time (see E. *Discretionary Actions and Other Planning Considerations*, below). Certain components and actions that the project sponsor has identified as potential community benefits for inclusion in the Development Agreement are analyzed in this EIR, particularly since they have the potential to affect the physical environment. The impact analyses and mitigation measures affected by these components also consider the environmental effects that would occur if these components are not ultimately developed.

The draft Development Agreement components that are relevant to potentially significant environmental effects identified in this EIR, include:

- **Community Education Center** - Development of and long-term funding for an approximately 5,000 square-foot community education facility serving up to 100 students on site (developed and funding initiated with Site IV) (*discussed above)*;

- **Caesar Chavez Educational Center** - Long-term funding for the Cesar Chavez Education Center Open Gym/ Playfield, directly north of the project site, across East 12th Street (approximately 16,500 square-foot indoor gymnasium and 2.6-acre outdoor playfieds); and

- **Publicly Accessible On-site Park** - Development of a publicly-accessible children's park onsite (implemented with Site III).

D. Project Objectives

The project sponsor has identified the following goals and objectives for the Gateway Community Development Project:

- To construct a project on the site generally bounded by East 12th Street, the Union Pacific Railroad tracks, and Miller and Derby Avenues in Oakland.

- To support the goals and objectives of the Oakland Coliseum Redevelopment Plan and reuse an existing underutilized site with high-quality residential and neighborhood commercial infill development.

- To implement neighborhood goals and policies of the Oakland General Plan by directing urban density and residential mixed use development to near transit and along commercial corridors where residential uses do not presently exist but may be appropriate.

- To create a mix of housing types – multifamily and townhomes – with a range of unit sizes, offering new home ownership opportunities in Oakland.

- To construct a project that includes sufficient parking to meet the needs of the project and avoid impacting parking on nearby streets.

- Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community, including in particular, the Fruitvale and San Antonio neighborhoods.

- To construct an economically feasible project.

- To construct a mixed-use project that includes neighborhood-serving retail and commercial uses, and possibly arts or light industrial uses that could transition to retail and commercial as market forces determine and would be compatible with adjacent residential uses and the adjacent school.

- To construct a project that takes advantage of the excellent transit service and high level of investment in transit infrastructure in the area.

- To provide for healthy, vital, and accessible commercial areas that help meet local consumer needs in the neighborhoods.
- To minimize conflicts between residential and non-residential activities while providing opportunities for residents to live and work at the same location or in close proximity to work or public transit.
- To provide a project that enables residents and employees to take advantage of nearby public transit.
- To incorporate feasible site development and building design standards to promote sustainable design principles.

E. Discretionary Actions and Other Planning Considerations

As discussed in Chapter I (Introduction), the City of Oakland is the Lead Agency responsible for preparation of this EIR (pursuant to CEQA Guidelines Section 15051). This EIR is intended to be used to provide CEQA clearance for all required discretionary actions for the project. Both the Planning Commission and the City Council will make decisions on the required discretionary actions. The discretionary actions and other considerations and approvals anticipated to be required for the project include, without limitation, the following.

City of Oakland

General Plan Amendment (Government Code Section 65350) – The project sponsor has requested an amendment to the General Plan Land Use and Transportation Element (LUTE) Land Use Diagram to remove the existing *Business Mix, Mixed Housing Type Residential*, and *Regional Commercial* land use classifications on the site and designate the *Community Commercial* classification on the entire site. This would allow the uses and residential densities proposed by the project to occur on the property. The Planning Commission would be required to review the General Plan Amendment and forward its recommendation to the City Council for final decision. The project sponsor has requested that the City initiate the General Plan Amendment on portions of the project site that the project sponsor does not currently own.

Redevelopment Plan Amendment (Health and Safety Code Section 33450) **–** Given the proposed General Plan Amendment, the project would require amendments to the Oakland Coliseum Redevelopment Plan to maintain consistency between the Redevelopment Plan with the Oakland General Plan (as proposed for amendment). The Redevelopment Plan amendment would require approval by the Oakland Redevelopment Agency and City Council. The project sponsor has requested that the City initiate the Redevelopment Plan Amendment on portions of the project site that the project sponsor does not currently own.

Rezoning (Oakland Planning Code Chapter 17.144) – The project sponsor has requested a Rezoning that would replace the existing M-30 General Industrial Zone on the site with C-45 Community Shopping Commercial Zone and S-4 Combining Design Review Zone. Approval of the proposed Rezoning would permit the proposed land uses and residential densities (which are currently not permitted) on the site and ensure that the project zoning is consistent with the General Plan (as proposed for amendment). Application of the S-4 Zone would establish procedures for the design review of new and altered structures. The Planning Commission would be required to review the Rezoning and forward its recommendation to the City Council for final decision. The project sponsor has requested that the City initiate the Rezoning on portions of the project site that the project sponsor does not currently own

Development Agreement with the City of Oakland (Oakland Planning Code Chapter 17.138; Government Code Section 65864) - The project sponsor has requested that the City enter into a Development Agreement with the project sponsor to provide for an extended, vested entitlement period; to specify requirements for project phasing; to confirm the project's community benefit contribution; to stipulate what City regulations will apply throughout the term of the Development Agreement; and to establish other commitments by either party. The Development Agreement would govern the development of the entire project site, including Sites V and VI if and when they are controlled by the project sponsor. The City Planning Commission would review the Development Agreement and forward its recommendation to the City Council for a final decision.

Disposition and Development Agreement with the Oakland Redevelopment Agency (Health & Safety Code Section 33430) – the project sponsor has requested that the Oakland Redevelopment Agency enter into a Disposition and Development Agreement with the project sponsor to specify terms of the Agency's acquisition and transfer of the Caltrans property.

Preliminary Development Plan (PDP) and Final Development Plan (FDP) / Final Design Review for a Planned Unit Development (PUD) (Oakland Planning Code Chapter 17.140) – The project sponsor seeks approval of a Planned Unit Development (PUD), for which it is required to prepare and obtain approval for an overall Preliminary Development Plan (PDP) for the portion of the site located west of 29th Avenue currently owned by the project sponsor (Sites I through IV), and, subsequently, one or more Final Development Plan(s) (FDPs) and Final Design Reviews prior to implementation of each site during phased development. The Planning Commission would be required to review the PDP and FDP and conduct Final Design Review(s).

Variances (Oakland Planning Code Chapter 17.148) – Upon submittal and the City's review of detailed project plans, the project may require approval of one or more Variances to allow project characteristics that may not conform to the Zoning Regulations and that are not excepted by PUD Development Regulations (Chapter 17.122).

Subdivision Map (Subdivision Map Act Oakland; Municipal Code Title 16) – The project would be required to obtain approval from the City for a subdivision map, parcel map, lot line adjustment, or lot merger, as appropriate, to assemble and merge individual parcels that make up the project site to accommodate large, comprehensive development components on each development site. The project may also require one or more condominium maps.

Tree Removal Permit (Oakland Municipal Code Chapter 12.36) - Pursuant to the City's Protected Trees Ordinance, the project sponsor would be required to obtain an approved Tree Removal Permit prior to removal of (or construction activity near) a "Protected Tree," as defined in Oakland Municipal Code Chapter 12.36.020. Tree permits would require approval by the Oakland Office of Parks and Recreation.

Encroachment Permits (Oakland Municipal Code Chapter 12.08) – The project would require City approval of encroachment permits to work within various public rights of way.

Demolition Permits (Oakland Municipal Code Chapter 15.36) – The project would require administrative approval of demolition permits to demolish existing buildings and structures on the project site**.**

Excavation Permits (Oakland Municipal Code Chapter 12.12) – The project would require City approval of excavation permits to conduct excavation activities on the project site.

P-Job Permit (Oakland Municipal Code Chapter 12.20) – The project would require City approval of a P-Job permit for the privately-sponsored construction of improvements within the public right-of-way.

Building Permits (Oakland Municipal Code Title 15) - The project would require City approval of all other permits required for project construction on the project site.

Other Agencies

In addition, the project may require review and approval by other public and quasi-public agencies and jurisdictions that have purview over specific aspects of the project. These other agencies may also consider this EIR in their review and decision-making processes. A description and discussion of each action and agency/jurisdiction is included within the relevant topical analysis sections in Chapter IV, Environmental Setting, Impacts, and Mitigation Measures.

- California State Water Resource Control Board – San Francisco Region (RWQCB)
- East Bay Municipal Utility District (EBMUD)
- Alameda County Environmental Health Department (ACDEH)
- California Department of Toxic Substances Control (DTSC)
- Alameda County Airport Land Use Commission (ALUC)
- City of Alameda (for impacts and mitigation measures that would occur within its jurisdiction)
- California Department of Transportation (Caltrans) (for impacts and mitigation measures that would occur within its jurisdiction)
- Bay Area Rapid Transit (BART) (potentially for roadway alterations under elevated BART tracks)

CHAPTER IV
Environmental Setting, Impacts, and Mitigation Measures

Introduction to the Environmental Analysis

Overview

The analysis provided in this EIR has been prepared in accordance with CEQA, as amended (Public Resources Code Section 21000, et seq.), and the State CEQA Guidelines (California Code of Regulations sections 15000 through 15378).

This chapter contains a discussion of 1) Environmental Setting (baseline conditions and regulatory background), 2) Environmental Impacts Analyses (direct, indirect or secondary, short-term, and cumulative) that could result from the proposed project, and 3) Mitigation Measures and City of Oakland Standard Conditions of Approval that would, to the extent possible, reduce or eliminate adverse impacts identified in this chapter.

Scope of Analysis

Throughout this EIR, the analysis addresses the potential impacts of all activities that would result from development of the entire project site and during all development phases. Pursuant to Section 15358(b) of the CEQA Guidelines and the City of Oakland's amendment to the Oakland General Plan (City of Oakland, 2005a), the analysis focuses on the *physical* impacts that may result for the project Further, the analysis identifies the significance criteria used to assess the significance of adverse environmental effects and reports the significance of impacts (both prior to and after implementation of mitigation). Where appropriate and relevant, potential impacts specific to a certain phase of development or development site are identified as such, with mitigation measures or standard conditions also identified accordingly.

This EIR addresses each environmental topic for which the project could result in a physical environmental effect under CEQA. As indicated in the Chapter I (Introduction), the City elected not to prepare an Initial Study, which may have narrowed the scope of environmental topics that the EIR would include. The analysis in this EIR was also scoped to respond to NOP comments that pertained to potential environmental effects of the project under CEQA. Thus, all such comments are addressed within the information and analysis presented throughout this document. (Comment letters received in response to the NOP are provided in **Appendix B** to this EIR.)

The analysis considers impacts that would occur during construction and during operation of the project through buildout (Year 2025) and cumulative conditions (Year 2025). Although not required by CEQA, a 2010 interim year analysis is included in this EIR to assess potential near-term traffic, air quality, and noise impacts that could result with initial phases of the project.[1]

Environmental Baseline

Overall, pursuant to Section 15125(a) of the CEQA Guidelines, this EIR measures the physical impacts of the proposed project against "baseline" of physical environmental conditions at and near the project (typically from a local and regional perspective, as appropriate). The "baseline" is the combined circumstances existing around the time the NOP of the EIR was published, which is November 2005.[2] In most cases, the baseline condition relevant to the environmental topic being analyzed is described within each environmental topic section in Chapter IV. In some cases (such as Section IV.B, *Visual Quality,* Section IV.C, *Transportation, Circulation and Parking,* and IV.K, *Population, Housing and Employment*), discussion of the baseline condition is detailed or restated in the *Impacts Analysis* to provide the impact analysis in the most reader-friendly format and organization. In cases where the timing of the baseline condition used is substantially different from the November 2005 baseline, the alternative baseline is described within the specific topic sections in Chapter IV.

The baseline for the 2010 interim year analysis that is presented in this EIR to assess near-term traffic and traffic-related air quality and traffic-related noise impacts associated with the project. The 2010 baseline was established by the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model, with land uses within Oakland modified by Hausrath Economic Group (HEG) to reflect the City's updated growth scenario for 2010 (discussed under *Cumulative Analysis Context*, below). Similarly, the baseline for the 2025 cumulative year analysis for traffic and traffic-related air quality and traffic-related noise impacts are derived using ACCMA's Countywide Transportation Demand model with land uses reflecting the City's updated growth scenario for 2025.

The baseline also includes the policy and planning context in which the project is proposed. This is discussed in detail within Section IV.A, *Land Use, Plans and Policies,* and identifies any inconsistencies between the proposed project and applicable, currently adopted plans and policies. As appropriate, this section also considers changes to existing plans (i.e. General Plan Land Use Diagram, part of the Land Use and Transportation Element; Coliseum Redevelopment

[1] The 2010 analysis assumes that the entire project would be constructed and occupied by year 2010. This assumption is also more conservative than the City of Oakland's Cumulative Growth Scenario, updated for this EIR analysis, which assumes only development equivalent to Sites I and II of the project would be constructed and occupied by 2010. The project sponsor has indicated that it is not likely that the project phasing would result in either level of development being constructed and occupied by year 2010. Thus, the project impacts, mitigation measures, and standard conditions identified in this EIR may likely occur at a time later than shown since the project would likely be developed at a time later than the analysis assumes.

[2] Except as specified otherwise, any reference to "existing" conditions throughout this EIR refers to the baseline condition as of around November 2005.

Plan) the project proposes, as well as all reasonably foreseeable plan updates/amendments that the City is currently considering (i.e., 2007 Bicycle Master Plan Update).

Cumulative Analysis Context

Pursuant to the requirements of CEQA, this EIR evaluates potential project-level impacts and potential cumulative impacts. A cumulative impact occurs when the impact of two or more individual impacts, when considered together, are substantial or compound or increase other environmental impacts. The cumulative analysis is intended to describe the "incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects" that can result from "individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines Section 15355). A cumulative analysis discussion is provided for each environmental topic addressed in this EIR, and unless specified otherwise, the geographic context for each cumulative analysis in the City of Oakland. (Also see *Impact Overview* discussion in Chapter VI, which summarizes the cumulative impacts identified throughout Chapter IV).

The cumulative analysis year established for this EIR analysis is 2025. To establish the 2025 cumulative context and baseline conditions for this analysis, the City of Oakland updated its detailed Oakland Cumulative Growth Scenario and Land Use Database in March 2006 to ensure that updated cumulative impacts are appropriately considered within the context of future citywide and regional growth and development. The City's updated growth scenario and land use database incorporates 2000 Census data, projections series available from the Association of Bay Area Governments (ABAG) at the time this EIR was prepared, and considers foreseeable, future development projects in the area. As detailed in the March 2006 updated Oakland Cumulative Growth Scenario in **Appendix D,** HEG, under direction of the City, has compiled a list of proposed, approved, and reasonably foreseeable development projects that the City expects to be completed in Oakland by 2025. The numbers in Oakland's updated growth scenario are similar to the ABAG projections currently incorporated into the ACCMA Travel Model. However, Oakland's updated growth scenario used in this EIR analysis provides more specificity about growth and development.[3] Considering the reasonably foreseeable development, in addition to the projected growth that would occur on the project site as part of the project, HEG developed population, housing, and employment forecasts for year 2025 that are used for the cumulative analysis in this EIR.

Mitigation Measures and Standard Conditions of Approval

As indicated above, project-specific mitigation measures are identified throughout the EIR to reduce or eliminate adverse impacts of the project. The mitigation measures determined to be

[3] Appendix D includes a comparison table of the updated Oakland Cumulative Growth Scenario with the ABAG *Projections 2002* for Oakland and the ABAG projections, as incorporated into the Alameda County CMA Travel Model for use in transportation analyses. (ABAG *Projections 2002* series provides the basis for the numbers in the CMA model at the time the analysis for this EIR was prepared. See further discussion in Appendix D to this EIR.)

feasible and effective to reduce or avoid potentially significant impacts 1) will be included as part of the design, construction, and operations of the proposed project; 2) will be made conditions of approval for the project; and 3) will be subject to the monitoring and reporting requirements of CEQA and the terms of the discretionary approvals for the project.

The City's Uniformly Applied Development Standards are incorporated into projects as conditions of approval regardless of a project's environmental determination. As applicable, the Uniformly Applied Development Standards are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects. Throughout this EIR, these standards are identified as "Standard Conditions of Approval."

In reviewing project applications, the City determines which of the standard conditions are applied, based upon the zoning district, community plan, and the type(s) of permit(s)/approvals(s) required for the project. Depending on the specific characteristics of the project type and/or project site, the City will determine which Development Standards apply to each project; for example, Development Standards related to creek protection permits will only be applied projects on creekside properties.

The Development Standards incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code, and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects. Where there are peculiar circumstances associated with a project or project site that will result in significant environmental impacts despite implementation of the Development Standards, the City will determine whether there are feasible mitigation measures to reduce the impact to less than significant levels in the course of appropriate CEQA review.

Significance Thresholds

The City of Oakland has established local Thresholds/Criteria of Significance Guidelines (referred to as "Thresholds"), which have been in general use by the City since at least 2002, to help clarify and standardize analysis and decision-making in the environmental review process in the City of Oakland. The Thresholds are offered as guidance in preparing all environmental review documents, such as this EIR. The Thresholds are intended to implement and supplement provisions in the CEQA Guidelines for determining the significance of environmental effects, including Sections 15064, 15064.5, 15065, 15382 and Appendix G and are used to evaluate the proposed project in this EIR, as there are no unique factors that warrant the use of different thresholds.

Impact Classifications

The following level of significance classifications are used throughout this EIR:

Potentially Significant (PS) – The impact of the project may reach or exceed the defined threshold of significance, however it is not evident that, even in the theoretical worst-case standard conditions, a significant impact would occur. Feasible mitigation measures or standard conditions of approval may or may not be identified to reduce the potentially significant impact to a less-than-significant level.

Significant and Unavoidable (SU) – The impact of the project reaches or exceeds the defined threshold of significance. No feasible mitigation measure or condition of approval is available to reduce the significant impact to a less-than-significant level. In these cases, feasible mitigation measures or standard conditions are identified to reduce the significant impact to the maximum feasible extent, and the significant unavoidable classification is noted. Impacts are also classified as significant and unavoidable if a feasible mitigation measure is identified that would reduce the impact to a less-than-significant level, but the approval and/or implementation of the mitigation is not within the City of Oakland's or the project sponsor's sole control; as a result, this Draft EIR cannot presume implementation of the mitigation measure and the resulting less-than-significant impact level.

Less than Significant (LTS) – The impacts of the project either before or after implementation of feasible mitigation measures or standard conditions of approval do not reach or exceed the defined threshold of significance. Generally, no additional mitigation measures or standard conditions of approval are required although there are cases where standard conditions are identified even when the impact is LTS.

Beneficial Impact (B) – The impact of the project would improve the environment, regardless of the defined threshold of significance. Generally, no mitigation measures or standard conditions of approval are required or identified.

No Impact (N) – No noticeable adverse effect on the environmental would occur.

Nomenclature of Impacts, Mitigation Measures, and Standard Conditions

Impact Statements

All impacts in this EIR are identified by an abbreviated designation that corresponds to the environmental topic addressed (e.g., "HAZ" for hazardous materials). The topic designator is followed by a number that indicates the sequence in which the impact statement occurs within the section. For example, "Impact HAZ-1" is the first (i.e., "1") hazardous materials impact identified in the EIR. All impact statements are presented in bold text.

Mitigation Measures

Each mitigation measure is numbered to correspond with the impact that it addresses. Where multiple mitigation measures address a single impact, each mitigation measure is indicated by a

lower-case letter. For example “Mitigation Measure HAZ-1a” is the first (i.e., “a”) mitigation identified to address the first (i.e., “1”) hazardous materials impact (i.e., “HAZ”). Generally, all mitigation measure statements are presented in bold text, although where the mitigation measure includes lengthy detailed discussion that is part of a mitigation measure (for example, mitigation measures related to traffic impacts), the discussion text may be presented in plain text format for readability.

Standard Conditions

Standard conditions are presented the same as described above for mitigations measures. For example, “Standard Condition HAZ-2” is the second impact (i.e., “2”) identified for hazardous materials. Mitigation measures and standard conditions identified to address the potentially significant impacts of the project are presented using a single numbering sequence, without regard to category; for example, Mitigation Measure HAZ-1, Standard Condition HAZ-2, Mitigation Measure HAZ-3, Mitigation Measure HAZ-4, etc.

A. Land Use, Plans and Policies

This section describes the existing land uses, adopted General Plan land use classifications, and zoning designations on and around the project site. This section also describes the applicable plans and policies that guide development in the project area and evaluates the project's consistency with these plans and policies and other existing land use regulations.

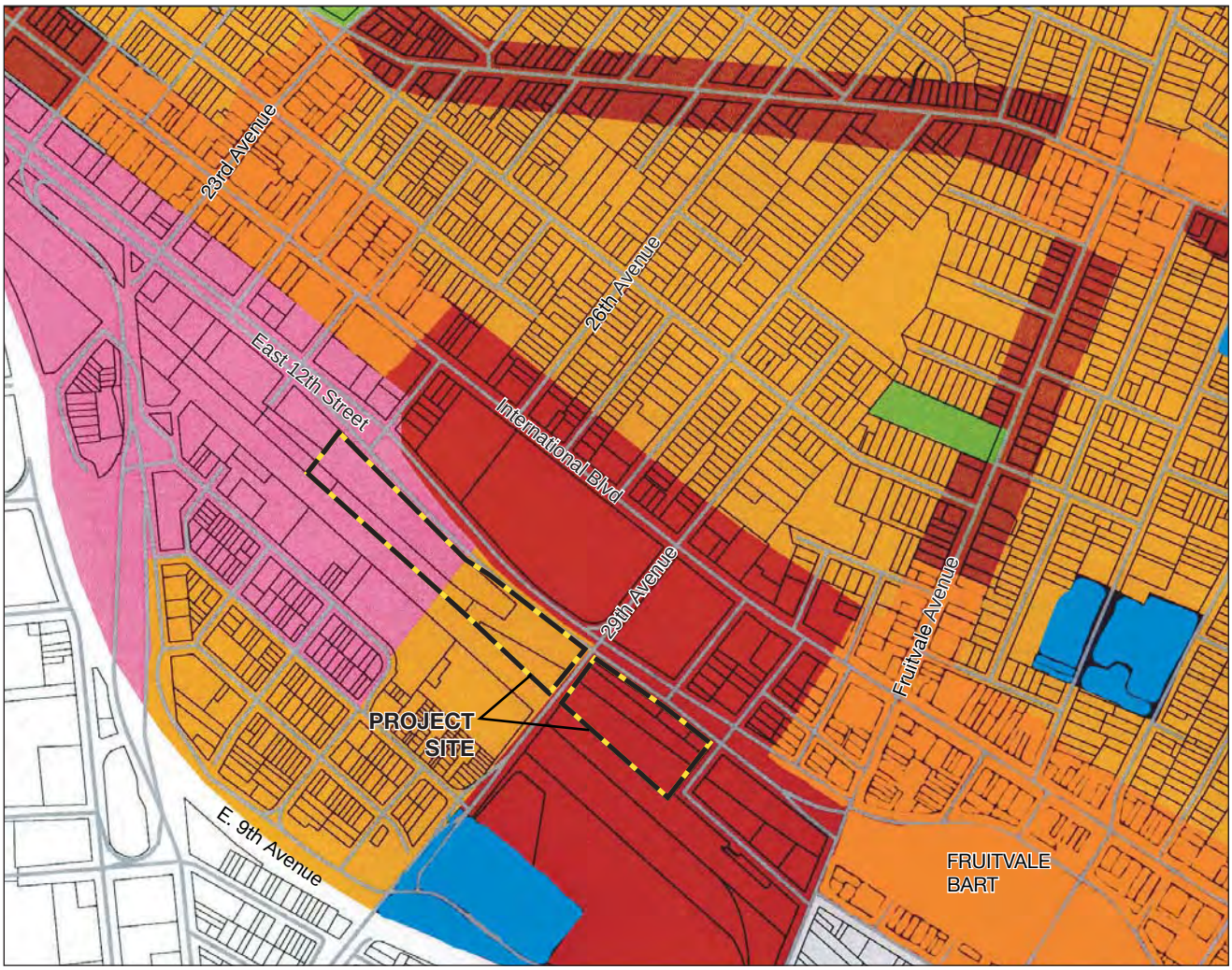
Following the discussion of the project's relationship to various plans and policies, this section identifies any potentially significant land use impacts and, if necessary, appropriate mitigation measures or standard conditions of approval. Pursuant to the City's amendment to the Oakland General Plan (City of Oakland, 2005a), as well as Section 15358(b) of the CEQA Guidelines, mitigation measures are proposed only to address *physical* impacts that may result for the project. Moreover, in considering appropriate mitigation measures or standard conditions of approval, this section recognizes that "the fact that a specific project does not meet all General Plan goals, policies, and objectives does not inherently result in a significant effect on the environment within the context of [CEQA]" (City of Oakland, 2005a).

Introduction

Land Use Classifications and Zoning

The project site is located in a central eastern area of the City of Oakland, approximately two miles east of Lake Merritt and slightly more than one-half mile north of the Oakland Estuary. **Figure III-1** (in Chapter III, Project Description) locates the site along the south side of East 12th Street[4], between approximately 26th Avenue on the west and Derby Avenue on the east. The Union Pacific Railroad (UPRR) tracks form the southern boundary of the site. The City of Oakland's General Plan Land Use and Transportation Element (LUTE) locates the project site within the San Antonio portion of the San Antonio/Fruitvale/Lower Hills Planning Area. As depicted in **Figure IV.A-1**, which shows the existing Oakland General Plan Land Use Classifications for the project area and vicinity, generally the western one-third of the project site and abutting areas are located within the *Business Mix* land use classification (generally along East 12th Street and southward). The central nearly one-third of the site (parcels at the southwest corner of 29th Avenue and East 12th Street)and areas directly south lie within the *Mixed Housing Type Residential* classification, and the eastern one-third of the site (parcels at the southeast corner of 29th Avenue and East 12th Street) and surrounding areas are within the *Regional Commercial* classification. (**Figure IV.A-2**, which delineates existing zoning on and surrounding the project site, also shows existing General Plan land use classifications for the site and surrounding areas.) The existing land use

[4] For purposes of this EIR, and following Oakland convention, East 12th Street runs east-west and 29th Avenue runs north-south.



True North
North for purposes of document
0
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Feet

Project Boundary

General Plan

- Residential Hillside
- Detached Unit Residential
- Mixed Housing Type*
- Urban Residential
- Neighborhood Center
- Community Commercial
- Housing and Business Mix
- Central Business District
- Regional Commercial*
- Business Mix*
- General Industrial / Transportation
- Institutional
- Resource Conservation Area
- Park & Urban Open Space
- Estuary Plan Area

* Existing classification on portion of project site.

SOURCE: City of Oakland, 2006.

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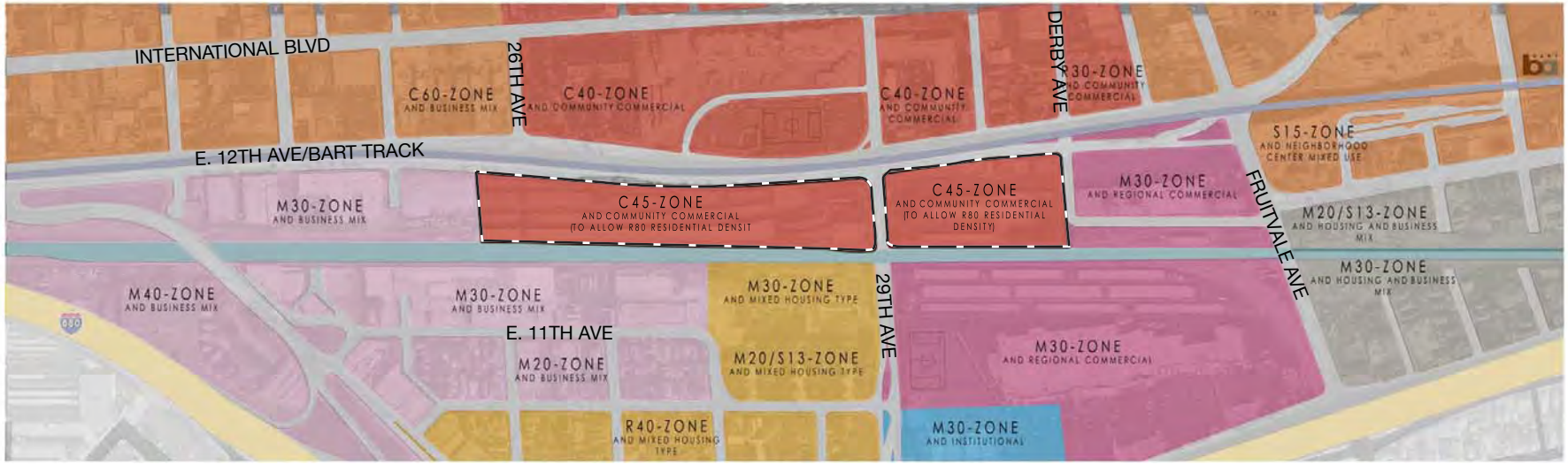
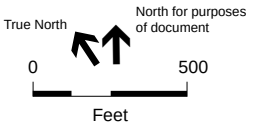
Figure IV.A-1
Existing Oakland General Plan Land Use Classifications: Project Site and Vicinity

EXISTING ZONING AND GENERAL PLAN



PROPOSED ZONING AND GENERAL PLAN



SOURCE: MBH Architects, 2007

Gateway Community Development Project . 204358

Figure IV.A-2
Existing and Proposed General Plan and Zoning

classifications are generally consistent with the immediately abutting properties, which include *Business Mix, Mixed Housing Type Residential,* and *Community Commercial*.

Figure IV.A-2, Existing and Proposed General Plan and Zoning, shows the site is currently located entirely within the M-30 General Industrial Zone. The area north of the project site and East 12th Street is primarily within the C-40 Community Thoroughfare Commercial Zone, with a small area of C-60 City Service Commercial Zone located west of 26th Avenue, and a two-block area of R-30 One-Family Residential Zone around Derby Avenue. All areas directly west, south, and east of the project site (south of East 12th Street) are within the M-30 General Industrial Zone, with properties zoned M-20 Light Industrial, M-20 / S-13 Mixed Use Development Zone, and M-40 Heavy Industrial located further south, southeast, and southwest of the site approximately two to three blocks. Immediately east of the project site is a large parcel within the S-15 Transit Oriented District Zone given its proximity to the Fruitvale BART Station.

The R-40 Garden Apartment Residential Zone exist for the residential neighborhood (commonly referred to as "Jingletown"), nearly two blocks south of the project site. This is one of the two residentially zoned areas near the project site (the other being the small R-30 One-Family Residential Zone north of East 12th Street, around Derby Avenue.

On-site Uses and Ownership

The approximately 9.7-acre project site consists of several contiguous properties, and includes an unoccupied hardware store and former lumberyard, six commercial buildings, a Caltrans facility, and a 951-unit self-storage facility, owned by the project sponsor and operated and maintained by its affiliate, Self-Storage U.S.A. The self-storage facility exists on the west side of 29th Avenue and has operated since 1993, with a major component of new storage units installed in 2004. The project sponsor owns all of the land within the project site, west of 29th Avenue. East of 29th Avenue, the project sponsor owns a vacant parcel of land that extends east-west through the middle of the site. The remainder of the site east of 29th Avenue includes three small, one- and two-story commercial buildings along East 12th Street (at and near the corner at Derby Avenue) and the Caltrans maintenance facility, which is located adjacent to the railroad tracks and Derby Avenue.

Land Use Approvals

As discussed in Chapter III (Project Description), the City approvals that the project sponsor is seeking for the project include the following, without limitation:

- General Plan Amendment to the Land Use and Transportation Element and Diagram (Government Code Section 65350)
- Redevelopment Plan Amendment (Health and Safety Code Section 33450)
- Rezoning (Oakland Planning Code Chapter 17.144)
- Development Agreement with the City of Oakland (Oakland Planning Code Chapter 17.138; Government Code Section 65864)

- Disposition and Development Agreement with the Oakland Redevelopment Agency (Health & Safety Code Section 33430)
- Preliminary Development Plan (PDP) and Final Development Plan (FDP) / Final Design Review for a Planned Unit Development (PUD) (Oakland Planning Code Chapter 17.140)
- Variances (Oakland Planning Code Chapter 17.148)
- Subdivision Map (Subdivision Map Act Oakland Municipal Code Title 16)
- Tree Removal Permit (Oakland Municipal Code Chapter 12.36)
- Encroachment Permits (Oakland Municipal Code Chapter 12.08)
- Demolition Permits (Oakland Municipal Code Chapter 15.36)
- Excavation Permits (Oakland Municipal Code Chapter 12.12)
- P-Job Permit (Oakland Municipal Code Chapter 12.20)
- Building Permits

General Plan and Redevelopment Plan Amendments and Rezoning as Part of Project

The project sponsor has requested approval of a General Plan Amendment, Redevelopment Plan Amendment, and Rezoning to facilitate development of the proposed project. Because the task of an EIR is to disclose what the impacts of the project will be if the project is approved and developed, these proposed changes to the General Plan land use classification, Redevelopment Plan land use designation, and zoning designation are considered part of the "whole of the action" evaluated in this EIR. If the project is approved and developed, the General Plan and Redevelopment Plan will have been amended and the zoning changed, thus, the project inherently would not "fundamentally conflict with any applicable land use plan… or zoning ordinance" as a result of not being consistent with an existing land use classification or zoning designation on the project site.

The EIR evaluates the project's consistency with General Plan and Redevelopment Plan policies, and to measure the project's *environmental* impacts, the EIR compares the circumstances existing during and after project development to the "baseline," which is the *physical* circumstances existing before project approval (discussed above). This EIR also presents a comparison of the impacts of development under the current General Plan, Redevelopment Plan and zoning to the impacts of development under the proposed changes as part of the "Redevelopment Consistent with General Plan Alternative" discussed in Chapter V. Environmental Setting

Land Uses

Previous Land Uses

The project site and vicinity are located in an area that has undergone tremendous change in the last 120 years. Although large agricultural estates and residential subdivisions were once the primary land use, the railroad brought industrial uses to the area (including a railroad station), and a mix between industrial, commercial, and residential uses has been in existence ever since.

Several land uses in the area pre-date the railroad, including the current site of the ASCEND Elementary School, which has been a school site since before the turn of the 20th century, and several residences in the area. The construction of I-880 and, later, the Bay Area Rapid Transit (BART) system further disrupted land use patterns in the area. In recent years, the City's focus on sustainable development, land use compatibility in mixed use areas, and transit-oriented development (TOD) (as supported by numerous Oakland General Plan policies the characteristics outlined by the ACCMA [ACCMA, 2007]), has encouraged and facilitated new residential, retail, and commercial use development in the area.

Site Vicinity Land Uses

The project site lies along two of Oakland's arterials: East 12th Street and 29th Avenue.[5]Arterial streets are defined in the LUTE as part of the "basic network for through-traffic between different sections of the city, defining the form of residential, industrial and commercial areas of the city." The LUTE further describes that arterials "connect freeways with collector streets and provide limited direct vehicle access to adjoining properties. Arterials are streets designed to carry heavy traffic volumes at speeds lower than freeways and expressways, typically 30-45 miles per hour" (City of Oakland, 2005a; LUTE p. 129).

The project site fronts the south side of East 12th Street and both sides (east and west) of 29th Avenue, which provides direct access to the City of Alameda via the Park Street Bridge and indirect access to I-880.

Figure III-1 (in Chapter III, Project Description) provides an aerial that identifies several major nearby land uses, and land uses in the areas surrounding the project site are described below.

East of the Project Site

Derby Avenue forms the eastern boundary of the project site and is a segmented local street that extends from East 15th Street to East 10th Street, which turns east (paralleling the railroad tracks that form the southern border of the site) for two blocks to Fruitvale Avenue.[6] A BART surface parking lot extends eastward from Derby Avenue to Fruitvale Avenue, and the Fruitvale BART Station parking structure exists on the east side of Fruitvale Avenue. Further east, beyond the BART parking structure and extending to 35th Avenue (approximately four blocks east of the project site), is Fruitvale Transit Village, which is a mixed-use, transit-oriented development that includes a public library branch, a childcare facility, residences (approximately 50 multifamily units), a health clinic, eateries, and retail and office uses. The Fruitvale BART Station and its surface parking lots are immediately south of the Fruitvale Transit Village. ASCEND (A School Cultivating Excellence, Nurturing Diversity) Elementary School, designed for approximately 380 Kindergarten through eighth grade students, is operated by Oakland Unified School District, and is located at 37th Avenue, nine blocks or approximately one-half mile from the project site.

5 Twenty-ninth Avenue is considered an arterial by the LUTE south of International Boulevard.
6 Derby Avenue resumes south of the railroad tracks, the Fruitvale Station Shopping Center, and I-880 and extends to the Estuary.

Single-family homes and homes converted to multifamily use exist next to and beyond the school.

South of the Project Site

The UPRR tracks and right-of-way form the southern boundary of the project site, and an at-grade railroad crossing exists across 29th Avenue. South of the railroad right-of-way abutting the site is a self-storage facility east of 29th Avenue, and the Lucasey industrial manufacturing plant facility and the City of Oakland's animal shelter, west of 29th Avenue. Two blocks southeast (across 29th Avenue) is the 157,900 square foot Fruitvale Station Shopping Center, which includes an major grocery store, office supply store, and automotive parts store as anchor commercial uses supported by a mix of sit-down and drive-through fast-food businesses and smaller commercial retail stores and personal services uses. Lazear Elementary School and playfield fronts 29th Avenue and is directly south and east of the shopping center. Operated by Oakland Unified School District, the school serves approximately 350 kindergarten through fifth grade students.

Two blocks directly south of the project site, along the west side of 29th Avenue, is Jingletown, a long-established neighborhood with a mix of new and established housing, businesses and industrial uses. Defining uses include lofts and live-work units, single-family and multifamily homes, small businesses, art studios, and trucking-related industrial facilities with on-site storage and visible loading docks. Jingletown extends south to I-880 and west to the 23rd Avenue overpass.

West of the Project Site

A maintenance facility owned by the Oakland Housing Authority (OHA) is located immediately west of the project site. The site includes surface parking for OHA employees, and a corporate yard that provides outdoor storage for equipment and above-ground storage tanks. Several commercial buildings continue along the south side of East 12th Street to the 23rd Avenue overpass, where a small park (CalCot Park) is located. Along the north side of East 12th Street is a drive-through fast-food restaurant, several car repair operations, a service station and a variety of retail and commercial uses. Although not visible from the site due to the relatively flat topography of the area and intervening development, Lake Merritt and downtown Oakland are approximately 2.5 miles west of the project area.

North of the Project Site

The northern boundary of the project site is formed by East 12th Street, which includes the elevated BART tracks and support pillars above and within its landscaped median. The north side of East 12th Street includes the St. Joseph's Professional Center, a large distinctive brick office complex that faces International Boulevard. The playfields for the Cesar Chavez Education Center are also north of East 12th Street, directly opposite the project site and have nighttime lighting. The Education Center provides facilities for three schools: Think College Now, an elementary school for students in Kindergarten through third grade; International Community School, an autonomous small school that serves students in Kindergarten through the fifth grade,

and Urban Promise Academy, an autonomous small school that serves students in the sixth through eighth grades. East of 29th Avenue, along the north side of East 12th Street, Goodwill Industries operates a facility that includes a donation intake center, a job training facility, and a retail store. Beyond the Goodwill Industries facility, single-family and multifamily residences occupy the blocks on the north side of East 12th Street, to Derby Avenue.

One block north of East 12th Street is International Boulevard, which extends from West Oakland through downtown Oakland (as 14th Street), East Oakland, and the City of San Leandro (as East 14th Street), until it reaches the City of Hayward and becomes Mission Boulevard, approximately seven miles from Oakland's eastern city limit line. In the vicinity of the project site, International Boulevard is the heart of the Fruitvale community's busy commercial district, with a variety of shops, businesses, and restaurants that attract customers from throughout the Bay Area.

City Plans, Policies, and Regulations

Applicable plans and major policies and regulations that pertain to the Gateway Community Development Project are presented below, followed by a discussion of the project's overall consistency (or inconsistency) with each plan. Several land use plans, policies, and regulations apply to the project site. Consistent with CEQA, every Oakland General Plan policy that *could* apply to the project is not included here. The policies listed below are those that most directly pertain to the environmental effects of the project and that emerged as points of interest or controversy during the environmental scoping and community outreach processes.

Conflicts with a General Plan do not inherently result in a significant effect on the environment within the context of CEQA. As stated in Section 15358(b) of the CEQA Guidelines, "[e]ffects analyzed under CEQA must be related to a physical change." Section 15125(d) of the Guidelines states that EIRs shall discuss any inconsistencies between the proposed project and applicable General Plans in the "Setting" section of the document (not under "Impacts").

Further, Appendix G of the Guidelines (Environmental Checklist Form) makes explicit the focus on *environmental* policies and plans, asking if the project would *"conflict with any applicable land use plan, policy, or regulation . . . adopted for the purpose of avoiding or mitigating an environmental effect"* (emphasis added). Even a response in the affirmative, however, does not necessarily indicate the project would have a significant effect, unless a physical change would occur. To the extent that physical impacts may result from such conflicts, such physical impacts are analyzed elsewhere in this EIR.

Regarding a project's consistency with the General Plan in the context of CEQA, the Oakland General Plan states the following:

> *The General Plan contains many policies which may in some cases address different goals, policies and objectives and thus some policies may compete with each other. The Planning Commission and City Council, in deciding whether to approve a proposed project, must decide whether, on balance, the project is consistent (i.e., in general harmony) with the General Plan. The fact that a specific*

project does not meet all General Plan goals, policies and objectives does not inherently result in a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). (City Council Resolution No. 79312 C.M.S.; adopted June 2005) (City of Oakland, 2005a)

City of Oakland General Plan

The Oakland General Plan establishes comprehensive, long-term land use policies for the City. Consistent with state law, the General Plan includes the Land Use and Transportation Element (LUTE) (adopted March 24, 1998, as amended);; the Historic Preservation Element (adopted March 8, 1994, as amended); the Open Space, Conservation, and Recreation (OSCAR) Element (adopted June 11, 1996); the Safety Element (adopted November 2004); the Housing Element (adopted June 14, 2004); the Noise Element (adopted June 21, 2005); the *Bicycle Master Plan* (adopted July 1999); the *Pedestrian Master Plan* (adopted November 2002 as part of the LUTE); and the *Scenic Highways Element* (adopted September 3, 1974). The City also adopted the *Estuary Policy Plan* as an element of the General Plan (adopted June 8, 1999, as amended).

Each element of the General Plan is discussed below, except the *Estuary Policy Plan* and the *Scenic Highways Element* since the project site is not located within or near the boundaries of the *Estuary Policy Plan* (which is generally along the Estuary, from Jack London Square to 66th Avenue) or a designated scenic highway (Interstate 580 to State Route 24, and State Route 13).

Land Use and Transportation Element

Adopted on March 24, 1998, the City's Land Use and Transportation Element (commonly referred to as "the LUTE") identifies policies for utilizing Oakland's land as change takes place and establishes an action program to implement its land use policies through development controls and other strategies. As described in the LUTE, the project site lies within the San Antonio portion of the San Antonio/Fruitvale/Lower Hills Planning Area, which is at the geographic center of the city. The Planning Area boundaries generally extend from the Oakland Estuary, north to State Route (SR) 13 and the southern boundary of the City of Piedmont, west to Lake Merritt and Harrison Street, and east to High Street and a portion of Interstate 580 (I-580).

As introduced above, the LUTE shows the project site located within three General Plan land use classifications (see **Figures IV.A-1 and/or IV.A-2**). The intent, desired character, and certain specific development or land use limitations (as summarized from the LUTE) of each of the existing classification on the site are described below.

Existing General Plan Land Use Classifications on the Project Site

- **Business Mix -** The intent of the *Business Mix* land use classification is to "create, preserve and enhance areas of the City that are appropriate for a wide variety of business and related commercial and industrial establishments." The LUTE further states: "High impact industrial uses including those that have hazardous materials on-site may be allowed provided they are adequately buffered from residential areas. High impact or large scale commercial retail uses should be limited to sites with direct access to the regional

transportation system." The maximum floor-to-area ratio (FAR)[7] is 4.0 and primary uses would include light industry, research and development, and low-impact manufacturing.

As shown in **Figures IV.A-1 and IV.A-2**, *Business Mix* applies to the portion of the project site located along East 12th Street, between 26th Avenue and an imaginary north-south line extending between Mitchell Avenue (to the north of East 12th Street) and Lisbon Avenue (to the south of the railroad tracks). Commercial self-storage uses currently exists within the *Business Mix* area of the project site and is consistent with that land use classification.

- **Mixed Housing Type Residential** - The intent of the *Mixed Housing Type Residential* land use classification is to "create, maintain, and enhance residential areas typically located near the City's major arterials and characterized by a mix of single family homes, townhouses, small multi-unit buildings, and neighborhood businesses where appropriate." The LUTE further states: "Respect for environmental quality, coupled with opportunities for additional housing and neighborhood-friendly businesses is desired, as well as the transition from industry that generates impacts detrimental to residences." The maximum density is 30 principal units per gross acre.

  As shown in **Figures IV.A-1 and IV.A-2**, *Mixed Housing Type Residential* applies to the portion of the project site located along East 12th Street between 29th Avenue and west of an imaginary line extending between Mitchell Avenue (to the north of East 12th Street) and Lisbon Avenue (to the south of the railroad tracks). This portion of the site is now occupied by buildings associated with a former ACE Hardware-Lumber Yard store and a former auto accessories store, and presently houses the trailer offices of Safe Storage U.S.A., an affiliate of the project sponsor. The current commercial self-storage uses on the site are not consistent with the existing *Mixed Housing Type Residential* land use classification.

- **Regional Commercial -** The intent of the *Regional Commercial* land use classification is to "maintain, support and create areas of the City that serve as region-drawing centers of activity." The LUTE adds that the desired character and land use mix for this classification would be "[a] mix of commercial, office, entertainment, arts, recreation, sports, and visitor serving activities, residential, mixed use development and other uses of similar character or supportive of regional drawing power." The maximum density for this land use classification is 125 units per gross acre and the maximum FAR is 4.0.

  As shown in **Figures IV.A-1 and IV.A-2**, *Regional Commer*cial applies to the entire block along East 12th Street, between 29th Avenue and Derby Avenue. This portion of the site is now occupied by the Caltrans South Oakland Maintenance Facility along the southern portion of the site and by three commercial buildings fronting East 12th Street, one of which is an operating automotive repair use. The existing uses on the site are generally consistent with the existing *Regional Commercial* land use classification.[8]

Proposed General Plan Land Use Classification for the Project Site

The project has requested a General Plan Amendment to remove the aforementioned land use classifications from the project site and designate the *Community Commercial* classification on the site to allow the land uses and residential densities proposed by the project.

7 The floor-to-area ratio (FAR) is the gross floor area of a building divided by total site area, excluding parking.

8 The General Plan is "silent" on the conformity of "Commercial Automotive Repair/Cleaning Activities," "Civic Utility and Vehicular Activities" (the Caltrans maintenance facility), and "Non-residential Open Facilities" (the Caltrans outdoor storage yard) within the *Regional Commercial* land use classification.

- **Community Commercial** - The intent of the *Community Commercial* land use classification is to "identify, create, maintain, and enhance areas suitable for a wide variety of commercial and institutional operations along the City's major corridors and in shopping districts or centers." The LUTE states the desired character and uses for this classification include neighborhood center uses and large-scaled retail and commercial uses…and complemented by the addition of urban residential development and compatible mixed use development. This land use classification would allow a maximum 125 units per gross acre and, for non-residential uses, a maximum FAR of 5.0.

  The project proposes to apply *Community Commercial* to the entire project site. The proposed overall residential density and FAR for the project (considering the entire project site) is approximately 84 units per gross acre and 2.7 FAR, respectively -- less than the maximums permitted in the *Community Commercial.*

Table IV.A-1, Summary of Existing and Proposed General Plan Land Use Classifications, is provided in the *Impact Analysis* (see Impact LU-2) within this section and summarizes the requirements and allowances for each land use classification relevant to the proposed project.

Relevant LUTE Policies

LUTE policies that apply to the project and that are particularly relevant to the potential effects of the project on the physical environmental are listed and discussed below:[9]

- The vitality of existing neighborhood mixed use and community commercial areas should be strengthened and preserved *(LUTE Policy I/C3.4 Strengthening Vitality)*.

- Existing industrial, residential, and commercial activities and areas which are consistent with long term land use plans for the City should be protected from the intrusion of potentially incompatible land uses *(LUTE Policy I/C4.1, Protecting Existing Activities)*.

- Facilitating the construction of housing units should be considered a high priority for the City of Oakland *(LUTE Policy N3.1, Facilitating Housing Construction)*.

- In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland (*LUTE Policy N3.2, Encouraging Infill Development)*.

- The City should actively encourage development of housing in designated Mixed Housing Type Residential and urban housing areas through regulatory and fiscal incentives, assistance in identifying parcels that are appropriate for new development, and other measures *(LUTE Policy N3.5, Encouraging Housing Development)*.

- Residential developments should be encouraged to face the street and to orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure *(LUTE Policy N3.9, Orienting Residential Development)*.

[9] The LUTE includes objectives and policies that pertain to five policy areas: Industry and Commerce (I/C), Transportation and Transit-Oriented Development (T), Downtown (D), Waterfront (W), and Neighborhoods (N). LUTE objectives and policies are indicated by these alpha designators.

- Residential areas should be buffered and reinforced from conflicting uses through the establishment of performance-based regulations, the removal of non-conforming uses, and other tools *(LUTE Policy N5.2)*.

- New residential development in Detached Unit and Mixed Housing Type Residential areas should be compatible with the density, scale, design, and existing or desired character of surrounding development *(LUTE Policy N7.1, Ensuring Compatible Development)*.

- Infrastructure availability, environmental constraints and natural features, emergency response and evacuation times, street width and function, prevailing lot size, predominant development type and height, scenic values, distance from public transit, and desired neighborhood character are among the factors that could be taken into account when developing and mapping zoning designations or determining "compatibility." These factors should be balanced with the citywide need for additional housing *(LUTE Policy N7.2, Defining Compatibility)*.

- The height of development in urban residential and other higher density residential areas should step down as it nears lower density residential areas to minimize conflicts at the interface between the different types of development. *(LUTE Policy N8.2, Making Compatible Interfaces Between Densities)*

- Consistency between the General Plan and Zoning Regulations should be provided within a reasonable time period of adoption of the final elements (i.e., Housing, Safety, or Noise elements) in the 1990s' General Plan update. . . . *(LUTE Policy N11.1, Required Zoning Consistency*)

- Prior to submitting required permit application(s), project sponsors of medium and large scale housing developments should be encouraged to meet with established neighborhood groups, adjacent neighbors, and other interested local community members, hear their concerns regarding the proposed project, and take those concerns into consideration. It is suggested that the relationship established between the developer and the community continue throughout the construction process to minimize the impacts of construction activity on the surrounding area *(LUTE Policy N11.6, Suggested Proactive Developer and Community Relations)*.

- Adequate school capacity should be available to meet the needs of Oakland's growing community. The City and the Oakland Unified School District (OUSD) should work together to establish a continuing procedure for coordinating residential and commercial development and exploring residential and commercial development and exploring the imposition of mutually agreed upon reasonable and feasible strategies to provide for adequate school capacity. The City and OUSD should jointly consider where feasible and appropriate, finding mechanisms such as assessment districts, Redevelopment Agency funding (AB 1290), use of surplus, City-owned land, bond issues, and adjacent or shared use of land or school facilities with recreation, libraries, child care and other public uses. *(LUTE Policy N12.2)*

- Electrical, telephone, and related distribution lines should be undergrounded in commercial and residential areas, except where special local conditions such as limited visibility of the poles and wired make this unneeded. They should also be underground in appropriate institutional, industrial, and other areas, and generally along freeways, scenic routes, and heavily traveled streets. Programs should lead systematically toward the eventual undergrounding of all existing lines in such places. Where significant utility extensions are

taking place in these areas, such as in new subdivisions, utilities should be installed underground from the start. *(LUTE Policy N12.4, Undergrounding Utility Lines)*

- The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking. *(Policy T4.1, Incorporating Design Features for Alternative Travel*)

- The City should make efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian oriented, including lighting, directional signs, trees, benches, and other support facilities. (*LUTE Policy T6.2, Improving Streetscapes)*

- New parking facilities for cars and bicycles should be incorporated into the design of any project in a manner that encourages and promotes safe pedestrian activity. *(LUTE Policy D3.2, Incorporating Parking Facilities)*

Key implementation strategies identified in the LUTE for the San Antonio/Fruitvale/Lower Hills Planning Area include "support transit development," and "improve underutilized properties back into productive use, such as…. properties near BART…" (City of Oakland, 1995a; LUTE, p.212).

Project Consistency with LUTE Policies

Overall LUTE Consistency. The proposed project would be generally consistent with the LUTE policies identified above. The project site is located one block from the Fruitvale shopping area along International Boulevard and is located three blocks from mixed use Fruitvale Transit Village adjacent to the Fruitvale BART Station. As such, the project would strengthen the vitality of surrounding commercial and mixed-use areas by increasing the potential consumer base for goods and services, and by transforming the site from an underutilized commercial/industrial property to an attractive residential development with a 24-hour presence. The project would support policies that encourage infill housing and mixed use development by providing neighborhood-serving retail services and up to 810 new residential units. Because of its close proximity to the Fruitvale BART Station (approximately 1,900 feet or 0.36 miles between the BART Station entrance and the East 12th Street at 29th Avenue intersection)), the project would support policies that encourage use of public transit, and is considered to be transit-oriented development, as described and encouraged in the LUTE as well as the ACCMA. The project entails several characteristics of an effective TOD, as specified by the ACCMA: mixed-use development of moderately high-density housing co-located with local-serving businesses, continuous sidewalks and convenient access to trunkline transit; and located within one-third mile of a transit station (ACCMA, 2007).

As a PUD subject to design review for all phases of development, the project would be consistent with LUTE policies that encourage high quality design, underground utilities, and site and building design features that limit potentially adverse shadow and noise effects on residential uses, particularly noise from trains passing adjacent to the site. The project also would support pedestrian activity and the use of bicycles and other alternative modes of transportation; it would maintain and improve sidewalks adjacent to the project to ensure safe connectively to nearby

activity centers and would not preclude the development of any bicycle facilities proposed on adjacent streets (see discussion of the *Oakland Bicycle Master Plan*, below).

The project's consistency with the General Plan land use classifications and diagram is discussed in detail under *Zoning, Guidelines for Determining General Plan Conformity in Oakland – Resolving Existing Zoning and General Plan Conflict* within this *Environmental Setting*, and within Impact LU-2 regarding project consistency with applicable plans, policies, and regulations, provided further in this section.

Consistency with Surrounding Land Uses. As previously described, predominate land uses surrounding the project site include the railroad tracks that abut its southern boundary and industrial and storage uses beyond, small and large-scaled commercial and retail uses, school facilities, and a mix or residential areas (discussed below). The proposed project, which entails a mix of high-density multifamily residential and townhomes with structured parking, ground floor commercial space envisioned for neighborhood retail uses, publicly-accessible open space as well as potential as community education facility, would complement the land uses in the surrounding area. Immediately adjacent uses (OHA maintenance facilities building, school playfields, Goodwill donation intake area, vacant industrial building) would not be adversely impacted by the proposed project – particularly as modified through the environmental scoping process to avoid shading effects on adjacent playfields. While the project would introduce residential units adjacent to existing, active railroad tracks, the project will incorporate specific design and mitigation measures to minimize the potential adverse noise and vibration effects that could result. Overall, the proposed project is consistent with the large-scale mixed use residential development near transit that the General Plan envisions through numerous policies.

The project would incrementally remove an existing self-storage facility from the site. Further, the proposed General Plan Amendment and Rezoning also would remove approximately three acres of land that currently could be potentially be redeveloped with job-producing industrial (custom, light, general, or heavy) uses given the existing M-30 General Industrial Zoning combined with the *Business Mix* land use classification. Additionally, the proposed change would remove nearly four acres of land that currently could be developed (or redeveloped) with industrial (custom or light) uses given the existing M-30 General Industrial Zoning combined with the *Regional Commercial* classification. As part of the citywide zoning update process, the City is currently considering a comprehensive citywide policy regarding the conversion of lands with industrial zoning and land use classifications to residential uses. While the City has not adopted a policy as of preparation of this EIR, as stated above, the project would result in the approximately seven acres of land (at the east and western ends of the site) being transformed into a well-designed, residential mixed use development that supports numerous LUTE policies (as well as other General Plan policies discussed throughout this section) and visions for the growth and change along the East 12th Street Corridor.

Sensitivity to Surrounding Residential Uses. Residential uses in the vicinity are located on the north side of East 12th Street, directly across from the project site, between 30th Avenue and Derby Avenue and between International Boulevard and East 12th Street. This enclave of single-

and multi-family residential homes extends beyond the project site toward Fruitvale Avenue. Most of the homes are oriented toward the local street on which they are located, and away from East 12th Street and International Boulevard. Most are designed as single-family homes, some of which are subdivided. The project site is further separated from the north side of East 12th Street by a wide landscaped street median that also includes elevated BART tracks and the large pillars that support the tracks. Other residential uses include the Jingletown community, separated from the site by the railroad tracks and a swath of industrial buildings to the south.

The project sponsor has considered and revised the design and configuration of new development to minimize potential effects related to massing and height. Although nearby residences are already effectively separated from the site by elevated BART tracks, the East 12th Street median, the railroad tracks, and/or other commercial and industrial uses, the proposed project would be set back from East 12th Street by landscaping and smaller townhomes. Larger structures would be located behind the townhomes or set back from the townhomes. Although the project would result in new shadow cast across East 12th Street, this shadow would not be considered a significant impact and would occur during winter months in the late afternoon. (See Section IV.B, *Visual Quality*, which provides a more detailed discussion of shadow and potential impacts related to visual quality at the site and in the vicinity.) Because the project is a PUD, the project would be subject to final design review, which will further evaluate the project against specific criteria related to bulk, height, aesthetics and appropriateness within its setting, beyond that considered here for the purposes of environmental effects under CEQA.

Street-Level Design and Activity. The project applicant proposes four multifamily buildings ranging from eight to twelve stories in height (approximately 72 t0 122 feet tall), 43 three-story townhomes (approximately 30 feet), and two towers of up to 15 and 16 stories (approximately 152 and 162 feet tall). The residential tower of Site V would be set back from East 12th Street, and the smaller-scale three-story townhomes would front East 12th Street. The proposed townhomes, the approximately 25,950 square feet of commercial (intended for neighborhood retail use) space, the 5,000 square-foot space intended for a community education facility, and project office space would all front East 12th Street and portions of 29th Avenue at the ground-floor level. The use of landscaping, townhomes, and ground-floor commercial/community space along the street would reduce the bulk and massing of the project abutting East 12th Street (by setting the taller, bulkier buildings which would have parking on the first two to three levels to the rear of the site). Also, these uses fronting East 12th Street would facilitate "eyes" on the street to enhance safety, and create an attractive pedestrian-friendly environment. Most of the proposed commercial space would be concentrated at the intersection of East 12th Street and 29th Avenue in large, street-fronting spaces (approximately 7,110 and 13,040 square feet).. Neighborhood-serving businesses envisioned for the commercial spaces in the project would include cafes/restaurants, laundry, flower shop, bakeries, etc., which would further stimulate pedestrian activity and enhance safety in the area.

Alternative Transportation. As noted above, the project would support the City's policies that encourage the use of alternative transportation modes. The project site is located approximately 1,900 feet from the Fruitvale BART Station entrance, as measured from the East 12th Street at 29th

Avenue intersection. Thus, the western portion of the proposed project is over one-quarter mile away from the Fruitvale BART Station entrance, and most of the eastern portion of the proposed project is within one-quarter mile of the Fruitvale BART Station. In addition, the project site is within two blocks of major AC Transit bus lines that serve major activity and employment centers throughout the city and surrounding communities.

In summary, the project would support policies pertaining to compatible in-fill development, provision of new housing units, quality design and active ground-floor uses, reuse of underutilized properties, and development near transit. (Also, see discussion of Impact LU-2 under the *Impact* Analysis in this section.)

Historic Preservation Element (HPE)

The City adopted the General Plan's Historic Preservation Element (HPE) on March 8, 1994, and amended it on July 21, 1998. The Historic Preservation Element provides a strategy for preserving historically significant resources throughout the city. The HPE states that the strategy "seeks to promote preservation of a wide range of significant older properties and districts in a manner that is reasonably balanced with other City goals and objectives. These properties include most Victorians and other pre-1906 structures as well as post-1906 properties of historical or architectural significance" (City of Oakland, 1998; HPE p. S-2). HPE objectives and policies that apply to the project are listed and discussed below:

- The City will designate significant older properties which definitively warrant preservation as Landmarks, Preservation Districts or Heritage Properties. The designations will be based on a combination of Historical and Architectural Inventory Ratings, National Register of Historical Places criteria, and special criteria for Landmarks and Preservation District eligibility. Landmarks, properties which contribute or potentially contribute to Preservation Districts, and Heritage Properties will be called "Designated Historic Properties." *(Policy 1.3: Designated Historic Properties)*

- To protect significant archeological resources, the City will take special measures for discretionary projects involving ground disturbances located in archeologically sensitive areas. *(Policy 4.1: Archeological Resources)*

Project Consistency with HPE Policies

Based on the archival research and previous and current survey efforts conducted and consulted for this EIR analysis (see Section IV.M, *Cultural Resources)*, no federal, state, or local historic resources (as defined by CEQA Guidelines Section 15064.5) exist on the site. The 1913 St. Joseph's Home for the Aged – Little Sisters of the Poor is the only recorded historic resource in the project vicinity at 2647 East 14th Street, opposite the elevated BART tracks and East 12th Street from the project site. The frontage of the property is approximately two blocks from the project site (OCHS, 1994). Since no historic resources exist on the site, and the project would not affect the integrity of the nearby historic resource (or its setting) due to its distance from the project site and significant intervening development, the proposed project would not impact any historic resources. Construction of the project would involve subsurface activity that could

potentially affect archaeological resources. As detailed in Section IV.M, *Cultural Resources* (Impacts M.1 and M.2), the project would be required to adhere to standard conditions of approval to reduce this potentially significant impact to less than significant, consistent with the HPE policies concerning archeological resources.

Open Space, Conservation and Recreation Element (OSCAR)

The Open Space, Conservation and Recreation Element (OSCAR), adopted on June 11, 1996, addresses the management of open land, natural resources, and parks in Oakland and is a state-mandated element of Oakland's General Plan. Many of the policies directly relate to significance criteria, and where applicable, the project's consistency with those policies are summarized here and referenced to the appropriate impact analysis section in this EIR. OSCAR policies[10] that apply to the project are listed and discussed below[11]:

- Enhance the availability and usefulness of Oakland's schoolyards and athletic fields as open space resources by (a) working with the Oakland Unified School District to make schoolyards and school athletic fields available to the public during non-school hours; (b) softening the harsh appearance of schoolyards by varying paving materials, landscaping, and restoring elements of the natural landscape, and (c) encouraging private schools, including church schools, to improve the visual appearance of asphalt yard areas. *(Policy OS-2.2: Schoolyard Enhancement)*

- Increase the amount of urban parkland in the seven flatland planning areas, placing a priority on land with the following characteristics (not in priority order):

  (a) Land in areas with limited public open space, as identified in the Recreation Chapter of the OSCAR;

  (b) Land adjacent to existing parks which has the potential to accommodate park expansion or to link together existing parks;

  (c) Land with the potential to provide creek or shoreline access;

  (d) Land with visual or historic significance;

  (e) Land that can be acquired at no cost or at a reduced cost, or land where matching funds for acquisition are available;

  (f) Land in areas with dense concentrations of people, especially children; and land in areas with large concentrations of workers or pedestrians;

  (g) Land that is highly visible from major streets, or that is adjacent to existing public buildings, particularly police and fire stations.

  (h) Continue to require new multi-family development to provide useable outdoor open space for its residents. *(Policy OS-4.1)*

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[10] Policies related to air quality and noise are included in Sections IV.D, *Air Quality* and IV.E, *Noise*. Policies related to recreation are included in Section IV.G, *Recreation*.

[11] The OSCAR policies that pertain to the project address Open Space (OS) and Conservation (C), and are indicated by these alpha designators.

- Discourage property owners from allowing vacant land to become a source of neighborhood blight, particularly in residential areas with large numbers of vacant lots. *(Policy OS-4.4: Elimination of Blighted Vacant Lots)*
- Protect the character of existing scenic views in Oakland, paying particular attention to: (a) views of the Oakland Hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard, Grizzly Peak Road, and other hillside locations. *(Policy OS-10.1: View Protection)*
- Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement. *(Policy OS-10.2: Minimizing Adverse Visual Impacts)*
- Incorporate a broad and varied range of tree species which is reflected on a city-maintained list of approved trees. Street tree selection should respond to the general environmental conditions at the planting site, including climate and micro-climate, soil types, topography, existing tree planting, maintenance of adequate distance between street trees and other features, the character of existing development, and the size and context of the tree planting area. *(Policy OS-12.1: Street Tree Selection)*
- Remove street trees only if they are hazardous, severely and incurably infested with insects or blight or are severely and irreversibly damaged and deformed. Provide replacement trees in all cases where the site is suitable for street trees. *(Policy OS-12.3: Street Tree Removal)*
- Minimize hazards associated with soil contamination through the appropriate storage and disposal of toxic substances, monitoring of dredging activities, and clean-up of contaminated sites. In this regard, require soil testing for development of any site (or dedication of any parkland or community garden) where contamination is suspected due to prior activities on the site. *(Policy CO-1.2: Soil Contamination)*
- Require use of drought-tolerant plants to the greatest extent possible and encourage the use of irrigation systems which minimize water consumption. *(Policy CO-4.2: Drought-Tolerant Landscaping)*
- Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons. *(Policy CO-7.4: Tree Removal)*
- Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency. *(Policy CO-13.3: Construction methods and Materials)*
- Use level of service standards of 10 acres of total parkland and four acres of local-serving parkland per 1,000 residents as a means of determining where unmet needs exist and prioritizing future capital investments. *(OSCAR Policy REC-3.1)*

Project Consistency with OSCAR Element Policies

Parks and Usable Open Space. The project applicant will provide useable open space on the project as part of the project. This space would include an approximately 8,000 square feet of publicly-accessible linear open space between Site II and III (west of 29th Avenue), which would include a children's park. Further, the project would provide a mix of private (decks for approximately one-half of dwelling units above grade) and common ("shared") useable open space throughout the site (at grade on the third-floor plaza level of the residential buildings) for project residents and tenants, consistent with Oakland Planning Code requirements. As a result,

this project would support policies regarding the provision of useable open space as part of multifamily developments and the provision of urban parkland accessible to the public.

The Fruitvale Planning Area (in which the project site is located) and the adjacent San Antonio Planning Area are both underserved by parks and open space, providing well below the adopted citywide goal of 4 acres of local-serving parkland per 1,000 residents. As the OSCAR recognizes, these areas are largely built out, making opportunities to create the amount of new open space needed to attain the City's goal largely infeasible. As part of the Development Agreement (which is part of the project), the project would include in the project the 8,000 square feet of publicly-accessible park/open space onsite (including a children's park) discussed above, and the project sponsor anticipates providing a financial contribution to off-site improvements, including but not limited to the Caesar Chavez Educational Center Open Gym/ Playfield at the northwest corner of 29th Avenue and East 12th Street (approximately 16,500 square-foot indoor gymnasium and 2.6-acre outdoor playfield), as well as other nearby parks and recreation facilities that may be identified in a Development Agreement.

Scenic Resources. The project would not result in a substantially adverse effect on a scenic resources or vista, including the Oakland Hills, the Estuary, or downtown Oakland/Lake Merritt due to the lack of, limited and/or intermittent views across the project site to these resources from public vantage points. Views to these scenic resources are primarily blocked by intervening existing development within this dense urban area. Therefore, the project would not conflict with policies regarding scenic views and visual impacts. (See Section IV.B, *Visual Quality*, for a more detailed discussion.)

Effects to the Natural Environment. In addition, because the project would result in cleanup of contaminated soils in accordance with local, state, and federal regulations, the project would support policies that address the remediation of contaminated sites, particularly with regard to potential effects to water quality. (See Section IV.F, *Hazardous Materials* of this Draft EIR for a detailed discussion of contamination at the project site.)

Trees Removal and Replacement. The OSCAR discourages the removal of all protected trees and all street trees except in certain circumstances *(Policy OS-12.3 and Policy CO-7.4).* The project would remove and replace street trees along East 12th Street. Overall, the project would remove approximately 37 trees located on and adjacent to the project site. An estimated 23 of the trees to be removed would be "protected trees" under Oakland's Tree Protection Ordinance. As such, all tree removal would conform to the City's Tree Removal and Preservation Permit requirements and standard conditions. Further, the project would replace removed trees onsite in accordance to landscaped plan incorporating plants consistent with City of Oakland criteria, and would replace all street trees in accordance with the City's Oakland's Tree Protection Ordinance. The project would therefore not conflict with OSCAR Policies OS-12.3 and CO-7.4.

Oakland Safety Element

Adopted in November, 2004, the City of Oakland's Safety Element, entitled *Protect Oakland*, is intended to "reduce the potential risk of death, injuries, property damage and economic and social dislocation resulting from large-scale hazards" (City of Oakland, 2004c; p. 3). This Element addresses public safety, geologic hazards, fire hazards, hazardous materials, and flooding hazards. Given the topics that are addressed in the Safety Element, most of its policies – such as policies related to the City's response to terrorist attack or the reduction of violent crime -- generally apply citywide. However, relevant policies from the Safety Element policies are listed and discussed below:

- Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena. *(Safety Policy GE-1)*

- Continue, enhance or develop regulations and programs designed to minimize seismically related structural hazards from new and existing buildings. (*Safety Policy GE-3*)

- Minimize the potential risks to human and environmental health and safety with the past and present use, handling, storage and disposal of hazardous materials. *(Policy HM-1)*

- Minimize the potential risk to human and environmental health and safety associated with the past and present use, handling, storage and disposal of hazardous materials. (*Safety Policy HM-1*)

Project Consistency with Safety Element Policies

The proposed project would be required to conform to all applicable regulations and requirements regarding seismic safety, and activities to remediate all contamination at the project site. These potential effects are addressed in Sections IV.F, *Hazardous Materials*, and IV.J, *Geology, Soils and Seismicity*, and mitigation measures and standard conditions are identified to reduce all potentially significant impacts to less than significant. Therefore, the project would therefore not conflict with any of the above Safety Element policies.

Housing Element

Adopted in June 2004, the Housing Element includes "a review and assessment of the City's performance in implementing the previous Housing Element (adopted in 1992), an assessment of current and future housing needs, an inventory of resources (including sites suitable for development of housing for all economic levels), governmental and non-governmental constraints to meeting those needs, and a statement of the City's goals, policies and quantified objectives for meeting its housing needs for the period 1999-2006." (Oakland, 2004b)

The Housing Element contains a number of policies that address the provision of housing throughout the city and that focus on actions that require implementation by the City. No housing is located on the project site, and the project would therefore not result in the removal of housing. The project would result in the construction of approximately 810 new residential units for sale. The Housing Element contains the following policies relevant to the project:

- Continue to direct development toward existing communities and encourage infill development at densities consistent with the surrounding communities. *(Housing Element Policy 7.3: Infill Development)*

- Encourage a mix of land uses in the same zoning district or on the same site in certain zoning districts *(Housing Element Policy 7.5: Mixed Use Development)*

Project Consistency with Housing Element Policies

The proposed project would provide housing at a higher density than most surrounding development, but would be generally consistent with multifamily residential development allowed and that exist along International Boulevard and the Fruitvale Transit Village. Existing General Plan land use designations that permit residential use permit densities that range from 30 units per gross acre (*Mixed Housing Type Residential)* up to 125 units per gross acre (*Neighborhood Center Mixed Use* and *Community Commercial*). The project's proposed density is approximately 84 units per gross acre. Further, the project would be consistent with direction in the LUTE that supports concentrating higher-density development along major transportation corridors as well as growth and change along the East 12th Street Corridor in particular. The project also would provide a mix of residential, commercial, and civic (community education) use within a unified development located in close proximity to multiple alternative transit modes, including AC Transit and BART. Thus, the project would support applicable Housing Element policies, particularly with regard to infill and mixed use development.

Noise Element

Adopted on June 21, 2005, the City's General Plan Noise Element is required to "analyze and quantify, to the extent practicable, current and projected noise levels from the following noise sources: major traffic thoroughfares, passenger and freight railroad operations, commercial and general aviation operations, industrial plants, and other ground stationary noise sources contributing to the community noise environment" (p. 1). These noise levels are depicted on noise contour maps that are used to guide land use decisions to reduce noise impacts, especially on sensitive receptors. According to the Noise Element, sensitive receptors include "residences, schools, churches, hospitals, elderly-care facilities, hotels and libraries and certain types of passive recreational open space" (p. 1). The Noise Element also includes a land use-noise compatibility matrix that illustrates the degree of acceptability of exposing various sensitive land uses to noise.

Noise-related policies are included in the LUTE and the OSCAR,[12] as well as in the Noise Element. The following policies from the Noise Element are relevant to the proposed project.

[12] These policies include the potential for nuisance impacts from commercial and industrial operations on nearby residential land uses; the location of truck routes away from neighborhoods; the location of entertainment venues and large commercial operations; and the buffering of heavy industrial uses, as well as residential uses.

- Ensure the compatibility of existing and, especially, of proposed development projects, not only with neighboring land uses, but also with their surrounding noise environment. *(Noise Policy 1)*

- Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources. *(Noise Policy 2)*

- Reduce the community's exposure to noise by minimizing the noise levels that are *received* by Oakland residents and others in the City. (This policy addresses the *reception* of noise whereas Policy 2 addresses the *generation* of noise.) *(Noise Policy 3)*

Project Consistency with the Noise Element Policies

The project site is located between the UPRR tracks, which abut the southern perimeter of the site, and elevated BART tracks, which runs within the median of East 12th Street, the northern perimeter of the site and provides train service from 5:00 AM until 1:00 AM (approximately 203 weekday train trips). An analysis of the effects of the existing noise environment on the project as well as the project's effects (construction and operational) on existing noise levels, is provided in Section IV.E, *Noise*, of this EIR. The project would be required to conform to the Noise Element, as well as mitigation measures and standard conditions of approval identified to reduce to less than significant the effect of exposing proposed residential and open space uses into incompatible noise conditions for those uses. In addition, the project would reduce the exposure of the project to groundborne vibration levels with implementation of identified mitigation measures. Thus, the proposed project would not conflict with Noise Element policies.

Bicycle Master Plan

In July 1999, the City Council adopted the Oakland Bicycle Master Plan (BMP); and an update of the Master Plan (2007 Draft Bicycle Master Plan Update) is currently underway. Among other standards, the 1999 Bicycle Master Plan contains a series of recommendations, including the number of appropriate spaces for short-term and long-term parking for bicycles. However, the City has not incorporated the recommended bicycle parking ratios into its Zoning Regulations and is considering adopting requirements that would be lower than the current recommended ratios. The 1999 Bicycle Master Plan includes the following policies that relate to the project:

- Promote secure and conveniently located bicycle parking at destinations throughout Oakland. *(BMP Policy 5)*

- Insure that the needs of bicyclist are considered in the design of new development and redevelopment projects. *(BMP Policy 8)*

While not yet adopted, the 2007 Draft Bicycle Master Plan Update proposes several policies that align with the 1999 Bicycle Master Plan policies above. Specifically, the 2007 Draft Master Plan Update maintains *BMP Policy 5* (re-designated as draft *Policy 1D*) and identifies the following City "actions" that support the policy and that are integral to existing *BMP Policy 8*:

- Development Incentives: Consider reduced automobile parking requirements in exchange for bicycle facilities as part of transportation demand management strategies in new development. *(*proposed *Action 1D.7)*

In addition, the 2007 Draft Bicycle Master Plan Update does not include requirements for short-term and long-term bicycle parking in development projects. It does recommend, and proposes to incorporate for City review concurrent with the 2007 Draft Bicycle Master Plan Update, a bicycle parking ordinance. As described in the Draft Bicycle Master Plan Update, the ordinance would required bicycle parking or other appropriate facilities as part of new development, would include recommended design guidelines for incorporating various facilities (e.g. racks, lockers, indoor/in-unit spaces, etc.), and would incorporate flexibility in satisfying requirements for long-term parking, including in-lieu fees.

Project Consistency with Bicycle Master Plan Policies

The 1999 Bicycle Master Plan proposes a Class 1 bicycle path along East 12th Street, west of Fruitvale Avenue, adjacent to the project site. [13] This bicycle lane would extend to the Fruitvale BART Station, which includes the largest bike station in any of the BART Stations, with free storage and a full-service repair shop. The proposed project would require improvements and alterations to East 12th Street to accommodate site access and vehicular and pedestrian safety, as well as access to public transit, however, in either scenario, the proposed project would not affect the ability for the City to implement the bicycle facility planned within East 12th Street.

In addition, the project would incorporate bicycle parking and storage facilities within the project at a level determined by the City and in a manner consistent with the City's practices or adopted, updated standards and regulations at the time of project construction. (See additional information on planned bikeway facilities in the project vicinity in Section IV.C, *Transportation, Circulation, and Parking*, in this EIR.)

Pedestrian Master Plan

Adopted on November 12, 2002, as part of the LUTE, the Pedestrian Master Plan "promotes pedestrian safety and access to help ensure that Oakland is a safe, convenient, and attractive place to walk" (City of Oakland, 2002; p. 7). The Plan establishes a Pedestrian Route Network throughout Oakland, using five levels of routes: city routes, district routes, neighborhood routes, walkways, and trails. The Plan also delineates a Downtown Pedestrian District, and recommends establishment of a comprehensive "Safe Routes to School" program. The Network also "designates routes that radiate out from each BART Station to adjoining neighborhoods and commercial districts" (City of Oakland, 2002; p. 47).

East 12th Street (between 19th Avenue and Fruitvale Avenue) and 29th Avenue (south of International Boulevard) are both considered "district routes." District routes are defined by the

[13] According to BART, this bicycle facility is the second largest in the nation (http://www.bart.gov/guide/bikes/bikeOverview.asp, July 24, 2006).

Master Plan as having a local function linked to the location of schools, community centers, and smaller scale shopping. International Boulevard, one block north of the project site, is identified as a "City route," a street that is considered to be a destination in of itself and is often the most direct connection between walking, transit and connections with multiple districts in the City.

The following Pedestrian Master Plan policy recommendations are most relevant to the project:

- Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue. *(PMP Policy 1.1, Crossing Safety)*
- Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections *(PMP Policy 1.2, Traffic Signals*).
- Create and maintain a pedestrian route network that provides direct connections between activity centers *(PMP Policy 2.1, Route Network)*.
- Develop projects and programs to improve pedestrian safety around schools *(PMP Policy 2.2, Safe Routes to School)*.
- Promote land uses and site designs that make walking convenient and enjoyable *(PMP Policy 3.2, Land Use)*.

Project Consistency with Pedestrian Master Plan Policies

Working with City staff, the project sponsor proposes to create a pedestrian-friendly frontage along East 12th Street and to work with the California Public Utilities Commission and Union Pacific Railroad to improve pedestrian safety at the at-grade railroad crossing on 29th Avenue. In addition, the project sponsor proposes (as a community benefit which would be finalized as part of the Development Agreement) to enhance pedestrian safety at crossings serving the Cesar Chavez Education Center,. These actions would support policies that encourage safe crossings at schools and project design that supports and encourages pedestrian-oriented activity. The addition of residential uses along East 12th Street, which is a designated district route, would further encourage and support pedestrian use. Located at a critical intersection that could potentially link pedestrians with transit opportunities at the BART Station and shopping opportunities in all directions, the presence of residential uses and neighborhood retail would improve the existing environment along East 12th Street, making in safe and inviting for pedestrians. In summary, the project would support relevant policies of the Pedestrian Master Plan by providing a safe and inviting environment for pedestrians and by providing direct access to transit and shopping, and by potentially improving safety near a public school.

Oakland "Transit First" Policy

The "Transit First" resolution, passed by the City Council on October 29, 1996, recognizes the importance of striking a balance between economic development opportunities and the mobility needs of those who travel by means other than the private automobile. The policy favors modes of transit that have the potential to provide the greatest mobility for people, rather than vehicles.

Project Consistency with "Transit First" Policy

The project site is served by major AC Transit lines along East 12th Street, International Boulevard, 29th Avenue, and buses in all directions from the Fruitvale BART Station, approximately three blocks from the project site. As indicated in Section IV.C, *Transportation, Circulation and Parking*, several AC Transit bus lines running through major north-south and east-west corridors serve the project site. These include Line 62 (an east-west bus line running along 12th Street, on the northern edge of the project site); Line 50 (a north-south bus line that transports riders from Alameda to the Oakland, operating on 29th Avenue); 82/82L line (an east-west line that runs along International Boulevard, which is one block from the project site); Lines 19 and 63 (which run from Alameda to Oakland along Fruitvale Avenue to the Fruitvale BART Station, which is two blocks from the project site); and Lines 47, 48, 53, and 54 (north-south bus lines that include a stop at the Fruitvale BART Station). Most of the buses run every 10 to 30 minutes during the peak periods.

In addition, the Fruitvale BART Station is approximately three blocks away from the site (1,900 feet as measured between the BART Station entrance and the intersection of East 12th Street and 29th Avenue); this station is served by three of the five BART lines (the Richmond – Fremont; Daly City – Fremont; and Daly City – Dublin/Pleasanton), which provides access to throughout the East Bay and San Francisco. The Fruitvale BART Station includes the largest BART bicycle facility (see *Bicycle Master Plan*, above).

Overall, the project would encourage the use of transit and support the City's Transit First Policy because of the project's location near public transit, which is available adjacent to the project site and at the nearby Fruitvale BART Station.

Zoning Regulations

As shown on **Figure IV.A-2**, the project site is currently located entirely within the M-30 General Industrial Zone. The intent of the M-30 Zone is to "create, preserve, and enhance areas containing a wide range of manufacturing and related establishments, and is typically appropriate to areas providing a wide variety of sites with good rail or highway access" (Planning Code, Section 17.70.010). In general, no maximum height is prescribed for this zone, except that the building heights are limited on lots located along boundaries for certain other zones; and no minimum lot size is prescribed. No residential use is permitted in an M-30 Zone.

Guidelines for Determining General Plan Conformity in Oakland – Resolving Existing Zoning and General Plan Conflict

Because the General Plan was updated more recently than the Oakland Zoning Regulations (part of the Oakland Planning Code, the General Plan and Zoning Regulations may conflict in some cases in terms of allowable land uses and certain development standards (i.e., FAR and density). Section 17.01 of the Oakland Planning Code defines cases case where this conflict occurs as an "express conflict." The City has adopted *Guidelines for Determining General Plan Conformity* (General Plan Guidelines) to address situations where the zoning and the General Plan

classifications are in "express conflict" with each other (Oakland Planning Commission, 1998, as amended).

Currently, the M-30 Zone that exists on all portions of the project site does not permit the proposed land uses and residential density proposed by the project. The *Mixed Housing Type Residential* and the *Regional Commercial* General Plan land use classifications that exist on the central and eastern portions of the site, respectively, permit residential use, but only the *Mixed Housing Type Residential* classification does not permit the residential density proposed by the project. Only the *Regional Commercial* classification permits residential use at the density proposed by the project. In addition, the *Business Mix* classification at the western end of the site prohibits residential use (although it does allow commercial uses proposed by the project). (See **Table IV.A-2** within the discussion of Impact LU-2 regarding project consistency with applicable plans, policies, and regulations.) As a result, pursuant to the General Plan Guidelines, an "express conflict" currently exists on the portion of the site where the M-30 Zone is combined with the *Mixed Housing Type Residential* and *Regional Commercial* land use classifications – the M-30 Zone prohibits residential use whereas *Mixed Housing Type Residential* and *Regional Commercial* permit residential use and *Regional Commercial* permits the residential density proposed by the project.

As previously discussed, the project sponsor seeks approval of a General Plan Amendment to apply the *Community Commercial* land use classification to the entire project site, and seeks to apply the C-45 Community Shopping Commercial Zone - a "best fit" zone identified for the requested *Community Commercial* classification - and the S-4 Design Review Combining Zone to the entire project site. The General Plan Guidelines identify best fit zones for cases where a project is not permitted by zoning (e.g., residential use not permitted by M-30 Zone), and thus no specific zoning regulations for the project (e.g., development standards for residential use) are established for the property. The S-4 Zone may be combined with other zones (in this case, the C-45 Zone) to establish procedures for the design review of new and altered structures.

The General Plan Guidelines identify two possible ways to change the existing zoning designation of a property to resolve an "express conflict": 1) with approval of an Interim Conditional Use Permit to designate and apply a best fit zone to the property, or 2) with approval of a Rezoning to change the existing zoning on the project site to a best fit zone. Through an Interim Conditional Use Permit process, a developer can propose, and the City may approve with special findings, a best fit zone that more closely conforms to the corresponding General Plan classification on a property (Oakland Planning Code Section 17.134). Rezoning is generally appropriate for larger, multi-parcel sites, such as the project site. The C-45 Zone is intended to "create, preserve, and enhance areas with a wide range of both retail and wholesale establishments serving both long and short term needs in compact locations oriented toward pedestrian comparison shopping, and is typically appropriate to commercial clusters near intersections of major thoroughfares" (Planning Code, Section 17.56.010). The C-45 Zone permits a maximum residential density consistent with the R-80 High Rise Apartment Residential

Zone (one unit per 300 square feet of site area, with conditional increases for certain situations[14]). This is the maximum density allowed outside of Oakland's downtown area. The proposed overall residential density for the project (considering the entire project site) is approximately one unit per 525 square feet of site area, which is less than the maximum permitted by the requested C-45 Zone.

Although the C-45 Zone could be considered the best fit zone for the existing *Regional Commercial* classification at the eastern portion of the site even without the proposed General Plan Amendment, the C-45 Zone is also considered a best fit zone for the *Community Commercial* classification. The *Community Commercial* classification would be applied to the entire project site because the intent of *Community Commercial* is more consistent with the project. In addition, without the General Plan Amendment to apply Community Commercial to the entire project site, the best fit zone for the *Mixed Housing Type Residential* area at the central portion of the site would be the R-50 Medium Density Zone, which would not allow the maximum residential density allowed by the C-45 Zone (R-80 Zone) or that is currently proposed by the project. Also, the General Plan Guidelines do not identify a best fit zone that allows residential use within the *Business Mix* area at the western portion of the site. Therefore, the project as proposed requires a General Plan Amendment and Rezoning to develop the area west of 29th Avenue (Sites I through IV, the west and central areas of the site); the project requires a Rezoning to develop the area east of 29th Avenue (Sites V and VI, the eastern area of the site).

Coliseum Area Redevelopment Plan

The *Coliseum Area Redevelopment Plan* is implemented by the Oakland Redevelopment Agency in accordance with the California Community Redevelopment Law (state law). Adopted in 1995 and amended most recently in 1996, the Coliseum Redevelopment Plan establishes the Redevelopment Plan Project Area boundaries which extend from 22nd Avenue to the Oakland/San Leandro border and from the north side of International Boulevard to the Oakland Estuary and Doolittle Drive. The Plan states:

> Because of the long-term nature of this Plan and the need to retain in the Agency flexibility to respond to market and economic conditions, property owner and developer interests and opportunities from time to time presented for redevelopment, this Plan does not present a precise plan or establish specific projects for the redevelopment, rehabilitation and revitalization of any area within the Project Area, nor does this Plan present specific proposals in an attempt to solve or alleviate the concerns and problems of the community relating to the Project Area.

The Redevelopment Plan states that the plan is designed to be consistent with all amendments to the Oakland Comprehensive Plan and its elements (Section 100, Introduction) and is therefore consistent with the LUTE's land use classifications on the project site. Relevant goals from the Redevelopment Plan's primary goals include:

[14] Increased density and/or FAR is allowed with conditional use permit for certain situations, including high-density residential development over four stories in height (Oakland Planning Code, Section 17.106.040).

- The elimination of blight and the correction of environmental deficiencies in the Project Area, including, among others, small and irregular lots, faulty exterior spacing, obsolete and aged building types, mixed character or shifting uses or vacancies, incompatible and uneconomic land uses, substandard alleys and inadequate or deteriorated public improvements, facilities and utilities.

- The assembly of land into parcels suitable for modern, integrated development with improved pedestrian and vehicular circulation in the Project Area.

- The replanning, redesign and development of undeveloped areas which are stagnant or improperly utilized.

- The strengthening of retail and other commercial functions in the Project Area. The improvement of transportation access to industrial and commercial areas an the improvement of safety within the Project Area.

- The provision of land for parking and open spaces.

Project Consistency with Redevelopment Plan Policies

The proposed project would fully support the goals of the Coliseum Redevelopment Plan by combining several small and irregular lots to replace underutilized properties with a modern, integrated development with enhanced pedestrian circulation. The proposed commercial uses would strengthen commercial and retail uses that already exist in the area and would activate the area, improving public safety. The potential provision of affordable housing to assist the Oakland Redevelopment Agency attain its housing goals would be finalized as part of the Development Agreement for the project.

As stated above, the Redevelopment Plan is currently consistent with the LUTE's land use classifications on the project site, therefore the project sponsor has requested an amendment to the Redevelopment Plan to ensure consistency with the General Plan, as proposed for amendment.

Oakland Sustainable Development Initiative

Adopted by the City Council in 1998, Oakland's Sustainable Development Initiative seeks to enhance the environmental sustainability of City operations and private development within the City. The major objectives of the Initiative include the following: economic development; employment training and continuing education; encouragement of in-fill housing, mixed use development, and sustainable ("green") building; making City operations and services a model of sustainable practices; and increasing community involvement. The Sustainable Development Initiative provides voluntary guidelines intended to preserve environmental health and increase economic development.

Project Consistency with Oakland Sustainable Development Initiative

As discussed above, the proposed project would provide in-fill mixed-use development, provide pedestrian links to a variety of public transit sources (including BART and AC Transit) and proposed enhanced pedestrian access to a variety of nearby services. These include businesses, retail opportunities, childcare, as well as community services, such as the nearby Clinica de la Raza health clinic and a branch of the Oakland Public Library. The proposed project would therefore support the Oakland Sustainable Development Initiative. (See detailed discussion of the Initiative in Section IV.D, Air Quality, within the discussion of greenhouse gas emissions and climate change.)

Alameda County Airport Land Use Policy Plan

The *Alameda County Airport Land Use Policy Plan* was adopted by the Airport Land Use Commission (ALUC) of Alameda County in July 1986. Commonly referred to as an Airport Land Use Plan or "ALUP," this land use plan is required by the California Aeronautics Act and must be prepared for airports within the County ALUC's jurisdiction. The ALUP establishes land use compatibility standards that apply to exposure to airport-related noise, safety and hazards prevention, and includes height restriction policies for new structures located within a *Height Referral Area* defined in the ALUP. With respect to CEQA review, the ALUC's sole legal responsibility is to make a compatibility determination for the proposed project, either by resolution adopted by the ALUC or by administrative determination by the ALUC Administrative Officer.

Project Consistency with the Alameda County Airport Land Use Policy Plan

Most of the policies and standards of the ALUP do not apply to the project site since, for example, the site is not located with an ALUP *Safety Zone* or *Noise Impact Area* near any airport approach zone). However, the site is located within the ALUP's *Height Referral Area*, which extends to East 12th Street near 12th Avenue and extents to Fruitvale Avenue near East 27th Street. Building heights within the *Height Referral Area* are generally limited to a ratio of 100 feet of horizontal distance from the end of the nearest Oakland Airport runway to one foot of building height. The project site is located approximately 14,000 feet (approximately 2.6 miles) from the end of the nearest runway, which is located near Harbor Way Parkway at Doolittle Drive). This distance would allow an estimated maximum building height of approximately 140 feet. The maximum height of the proposed residential towers on Sites V and VI are 152 and 162 feet, respectively, and therefore would exceed the ALUP standard.

While State law primarily focuses ALUC review on airport plans, local general plans and specific plans and greatly limits the need for ALUC review of individual development projects, the proposed project would be subject to review by the ALUC because it is a major new construction project involving changes to the General Plan and zoning on the project site *and* exceeds the development standards of the ALUP *Height Referral Area* (Shutt, 2002) (ALUC,1986). On July 12, 2007, ALUC staff conducted an administrative review of the proposed project and determined

that the proposed project would be "conditionally consistent" with the ALUP, pending an administrative review by the Federal Airports Administration (FAA) pursuant to 14 Code of Federal Regulations, part 77 (Covak, 2007). Given that the project site is located outside any runway approach area and would penetrate the height-controlled air space by a relatively small short distance (12 and 22 feet), and based on its experience with the scope of FAA review, ALUC staff anticipates that FAA's findings will support a determination by the County that the proposed project is consistent with the ALUP. As of publication of this Draft EIR, the project sponsor has submitted to the FAA the required Notice of Proposed Construction or Alteration (FAA Form 7460-1) for review and approval

Land Use Impacts Discussion

Significance Criteria

The project would result in a significant impact related to land use and plans if it would:

1. Physically divide an established community;

2. Result in a fundamental conflict between adjacent or nearby land uses;

3. Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment; or

4. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

Topics for which No Impact Would Result

The project is not located in or near an area guided by a habitat conservation plan or natural community conservation plan, Therefore, the project would not fundamentally conflict with such plans and the effect would be "no impact." This criterion is not addressed elsewhere in this EIR.

Impacts and Mitigation Measures

Physical Division of an Established Community / Conflicts with Adjacent Land Uses

Impact LU-1: The project would not physically divide an existing community or fundamentally conflict with existing adjacent land uses. (Less than Significant)

The proposed project would result in residential and commercial development on a site that has been used primarily to operate a self-storage facility. As detailed in the *Environmental Setting* discussion of this section, as well as in Chapter III (Project Description), other existing uses at the

site include an automotive repair shop, unoccupied commercial buildings formerly used as a hardware store and lumberyard, and other small commercial operations along East 12th Street, between 29th Avenue and Derby Avenue. Nearby uses include schools, shopping (including the Fruitvale Station Shopping Center), and existing single-family and multifamily development. The area also includes the Fruitvale BART Station and the Fruitvale Transit Village. Some active industrial uses and related commercial uses remain in the vicinity (excluding the project site). These include Dreisbach Enterprises, a refrigerated freight transloading storage operation located south of the project site and the railroad tracks, between 24th and 27th Avenues and fronting East 11th Street. Adjacent to Dreisbach Enterprises is the Lucasey Manufacturing Corporation plant facility, between 27th and Lisbon Avenues along East 11th Street, that manufactures media (television, video, etc.) mounting equipment. A steel containing storage operation exists in the eastern portion of a industrial warehouse facility located on East 10th Avenue, between Derby and Fruitvale Avenues east of the project site. While impacts of the existing environmental on the proposed project are not specifically addressed by CEQA (which assesses the effects of a project on the existing environment), each of these uses involve varying levels of truck activity as a primary or supporting component of operations, however, none are known to involve the manufacturing, handling or transport of materials or product that would pose adverse effects or nuisance to the public, including occupants of the project site. The Dreisbach and Lucasey properties are located approximately 100 feet from the nearest project site property line and are separated from the project site by the railroad tracks and the industrial buildings themselves. Open areas where truck-related activity (loading, circulation, storage, etc.) associated with these operations would occur are located primarily within buildings or oriented toward East 11th Street, located 300 to 500 feet from the nearest project site property line.

Industrial-related commercial activities near the project site include a diesel truck repair business exists at the northwest corner of 26th Avenue and East 12th Street, across East 12th Street from the western end of the project site. This business involves typical materials and operations associated with automotive repair and service activities and that are subject to existing regulatory requirements addressing vehicle emissions and the use, handling, disposal of hazardous automotive materials and equipment.

Several major industrial sites in the area have transitioned to non-industrial uses, such as new school facilities, residential neighborhoods (such as the Jingletown residential development south of the site), the Fruitvale Station Shopping Center, as well as the Fruitvale Transit Village. The existing and vacant industrial properties discussed above are currently within General Plan land use classifications (*Regional Commercial* and *Business Mix)* and zoning designations (M-30 General Industrial Zone and C-60 City Service Commercial Zone) that are intended for industrial uses and commercial uses that support such uses.

The proposed project would provide a residential and commercial connection to the surrounding neighborhood, which currently includes several areas of residential uses and retail businesses. The project would provide an active use for an underutilized property, better linking residential and commercial development along International Boulevard to areas south of International

Boulevard and East 12th Street, and to areas such as the Fruitvale Transit Village, area schools, the Fruitvale Station Shopping Center, and the Jingletown residential/live-work area.

The project would result in substantially taller and larger structures than have been previously built in the area, with the exception of, for example, older manufacturing sites, such as the Lucasey facility with include a tower structure. The only housing *immediately* adjacent to the project site is located along 30th Avenue and Derby Avenue, between International Boulevard and East 12th Street. Housing along these two streets is oriented toward 30th Avenue and Derby and away from both International and East 12th Street. Other nearby residential uses exists in Jingletown, which is separated from the site by the railroad tracks and a swath of industrial buildings. Based on the discussion provided in this section and throughout this EIR, the project would not result in a significant adverse effect on nearby residential uses or other sensitive receptors. Further, as discussed previously, while the project would introduce residential units adjacent to existing, active railroad tracks, the project will incorporate specific design and mitigation measures to minimize the potential adverse noise and vibration effects that could result.

Overall, the proposed project would be consistent with the large-scale mixed use residential development near transit that the General Plan envisions through numerous policies and would transform the site into a well-designed development with new residential and ground-floor commercial uses considered for the growth and change areas designated along the East 12th Street corridor. Given existing uses on and surrounding the project site, the proposed project would not, physically or perceptually divide an existing community, and would likely decrease physical barriers of expansive, vacant or underutilized industrial properties that currently exist between existing housing and area destinations (BART, International Boulevard, shopping centers and corridors, area schools and community services, etc.). The impact would be less than significant.

Mitigation: None Required.

Consistency with Plans, Policies, and Regulations (Pertaining to Physical Environmental Effects)

Impact LU-2: The project would not result in a fundamental conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Plans and Policies

Conflicts with a General Plan or other relevant plans do not inherently result in a significant effect on the environment within the context of CEQA. Section 15358(b) of the CEQA Guidelines states that "effects analyzed under CEQA must be related to a physical change." Appendix G of the CEQA Guidelines makes explicit the focus on *physical* environmental policies and plans, asking if the project would "conflict with any applicable land use plan, policy, or regulation…*adopted for the purpose of avoiding or mitigating an environmental effect*"

(emphasis added). As such, the project's conflict or inconsistency with a policy could indicate that the project would exceed an environmental threshold. To the extent that the project exceeds an environmental threshold and physical impacts may result from a policy conflict or inconsistency, such physical impacts are identified and fully analyzed in the relevant topical sections of Chapter IV in this EIR.

The Oakland General Plan contains many policies that in some cases address different or competing goals. The Planning Commission and City Council, in deciding whether to approve the project applications, must assess whether the project is consistent with the overall policies of the General Plan and must balance competing General Plan goals and objectives as part of its consideration. Additionally, the General Plan states that a specific project that does not meet all General Plan goals, policies, and objectives does not inherently result in a significant effect on the environment in the CEQA context (City of Oakland, 2005a).

There are no other plans, policies or regulations that the proposed project would conflict with.

Project's Consistency with General Plan Policies

Pursuant to CEQA Guidelines Section 15125(d), the *Environmental Setting* discussion of this chapter provides detailed discussions of the project's consistency with General Plan policies. As discussed in the *Environmental Setting*, the project would be consistent with applicable General Plan policies and other applicable plans discussed therein, particularly those that addresses potential effect to the environment considered under CEQA. In particular, the proposed project supports various LUTE policies and Coliseum Redevelopment Plan goals by creating compatible in-fill development near transit, a variety of new housing units, a development of high-quality design and active ground-floor uses, and the overall major redevelopment of underutilized properties at the confluence of two major arterials.

General Plan Land Use Classifications and Development Standards

To summarize the discussion under *Existing Land Use Classifications on the Project Site* and under *Guidelines for Determining General Plan Conformity in Oakland – Resolving Existing Zoning and General Plan Conflict* in the above *Environmental Setting*, certain existing General Plan land use classifications on the site would not permit the proposed uses and/or density or intensity (FAR) of development that the Gateway Community Development Plan proposes. **Table IV.A-1** below shows that the existing *Business Mix* classification (on approximately 3.2 acres of the site) would not permit residential use, but would permit commercial use, and the existing *Mixed Housing Type Residential* classification (approximately 2.9 acres of the site) would not allow the proposed density – thus, approximately two-thirds of the project site currently does not conform to the General Plan land use classifications as currently applied to the project site. As a result, the project sponsor has requested an amendment to the General Plan so that the entire project site would be designated *Community Commercial*, replacing all three existing classifications: *Business Mix, Mixed Housing Type Residential*, as well as *Regional Commercial*. Although the *Regional Commercial* classification (approximately 3.6 acres of the site) would permit the proposed use and density and intensity of the proposed project, the project is more consistent with the intent of the *Community Commercial* classification; as described in

the Oakland General Plan LUTE, *Regional Commercial* is intended for the city's "regional-drawing centers of activity," which is not consistent with the character of the proposed project.

Project's Consistency with General Plan Land Use Classifications

With approval of the proposed General Plan Amendment, the project would be consistent with the General Plan, in particular with respect to land use and residential density. Considering the entire project development, the project would create an overall residential density of approximately 84 units per gross acre and an overall FAR of approximately 2.7. Both are less than the maximum 125 units per gross acre and maximum 5.0 FAR allowed in the *Community Commercial* General Plan land use classification.

TABLE IV.A-1
SUMMARY OF EXISTING AND PROPOSED GENERAL PLAN LAND USE CLASSIFICATIONS

General Plan Classification	Acres within Project Site	Residential Use Allowed	Maximum Residential Density (Unit per gross acre)	Maximum FAR[a]
Existing Classifications				
Business Mix	3.2 acres	None	n/a	4.0 FAR
Mixed Housing Type Residential (MHTR)	2.9 acres	Up to 87 units[b]	30 units per gross acre	n/a
Regional Commercial	3.6 acres	Up to 450 units[b]	125 units per gross acre	4.0 FAR
Total	***9.7 acres***	***Up to 537 units***		
Requested through General Plan Amendment (entire site)				
Community Commercial	*9.7 acres*	*Up to 1,212 units [b]*	*125 units per gross acre*	*5.0 FAR*
Total	***9.7 acres***	***Up to 1,212 units***		
Existing Classifications by Project by Site				
Site I (existing *Business Mix)*	1.8 acres	180 units	100 units per gross	3.4 FAR
Site II (existing *Business Mix)*	1.4 acres	130 units	93 units per gross	3.2 FAR
Site III (existing *MHTR)*	1.4 acres	100 units	73 units per gross	2.4 FAR
Site IV (existing *MHTR)*	1.5 acres	100 units	66 units per gross	2.1 FAR
Sites V / VI (existing *Regional Commercial)*	3.6 acres	300 units	82 units per gross	2.7 FAR
Total	***9.7 acres***	***810 units***	***(Total 84 units per gross acre proposed)***	***(Total 2.7 FAR proposed)***

[a] Floor-to-area ratio (FAR) is the gross floor area of a building divided by total site area, excluding parking.
[b] With approval of an Interim Conditional Use Permit or Rezoning if combined with existing M-30 Zone that prohibits residential use.

SOURCE: Oakland General Plan Guidelines, 2005; Pacific Thomas Capital, 2007.

Coliseum Redevelopment Plan

The Coliseum Redevelopment Plan is designed to be consistent with all amendments to the Oakland Comprehensive Plan and its elements and is therefore consistent with the General Plan LUTE.

Project's Consistency with the Coliseum Redevelopment Plan

To summarize from the *Environmental Setting* discussion above, the proposed project would be consistent with the Redevelopment Plan in that it would revitalize existing underutilized properties. In particular, the proposed commercial uses are intended to strengthen and support existing commercial and retail activities and nodes nearby, in particular along International Boulevard and within the Fruitvale Transit Village and the Fruitvale Station Shopping Center. The Redevelopment Plan land use map is currently consistent with the General Plan LUTE Land Use Diagram, therefore, the project proposes to amend the Redevelopment Plan land use map to maintain consistency between the General Plan and the Redevelopment Plan.

Zoning Regulations

The existing M-30 General Industrial Zone on the project site does not permit the development proposed by the project. **Table IV.A-2** summarizes the areas of existing conflict between the General Plan and zoning.

Project's Consistency with Zoning Regulations

The project sponsor requests to rezone the project site to the C-45 Community Shopping Commercial Zone, which is a "best fit" zone identified for the *Community Commercial* General Plan land use classification (which is requested by the proposed General Plan Amendment discussed above) and permits the uses and development intensity (residential density and FAR) envisioned for the project. Thus, with approval of the proposed Rezoning, the project would be consistent with the Zoning Regulations. The proposed overall residential density for the project (considering the entire project site) is approximately one unit per 525 square feet of site area, which is less than the one unit per 300 maximum permitted by the C-45 Zone. In addition, the proposed overall FAR is approximately 2.7, which is less than the maximum 7.0 permitted in the C-45 Zone. The Rezoning would also apply the S-4 Design Review Combining Zone to the project site to establish procedures for the design review of new and altered structures; the S-4 Zone does not regulate land uses or density/intensity of development.

In addition, the project would be consistent with all other applicable development standards and requirements of the Zoning Regulations, including specifically, the PUD Regulations and Procedures established in Chapters 17.122 and 17.140, respectively, of the Oakland Planning Code.

TABLE IV.A-2
INCONSISTENCY BETWEEN EXISTING AND PROPOSED GENERAL PLAN AND ZONING ON THE PROJECT SITE

Existing General Plan and Zoning	Residential Use Allowed?	Maximum Residential Density (units/acre or sf)	Maximum FAR
Existing Conditions			
Business Mix	No	not permitted	4.0
M-30 Zone	No	not permitted	none identified
Mixed Housing Type	Yes	30 units/acre	none identified
M-30 Zone	No	not permitted	none identified
Regional Commercial	Yes	125 units/acre	4.0
M-30 Zone	No	not permitted	none identified
Proposed Project			
Community Commercial	Yes	125 units/acre	5.0
C-45 Zone	Yes	1.0 unit/300 sf of site area[a]	7.0

[a] Increased density and/or FAR allowed with conditional use permit for certain situations, including high-density residential development over four stories in height (Oakland Planning Code, Section 17.106.040).

SOURCE: City of Oakland Planning Commission, 2003

Physical Change in the Environment

The extent to which the project would cause physical changes in the environment, resulting in potentially significant or significant impacts, is elsewhere throughout this EIR.

Summary

The proposed project would conform to applicable policies in both the General Plan and other applicable land use plans and would not conflict with existing policies adopted for the purpose of avoiding or mitigating an environmental effect. Also, the project, which entails actions that would ensure the project's consistency with the General Plan land use classification and zoning on the site (as revised by the proposed General Plan Amendment and Rezoning, if approved) would not result in a fundamental conflict with the General Plan or Zoning Regulations. The impact would be less than significant.

Mitigation: None Required.

Cumulative Impacts

Impact LU-3: The project, combined with other foreseeable development included in the Oakland cumulative growth scenario, would not result in cumulative land use impacts. (Less than Significant)

As analyzed throughout this section, the proposed project would not result in a significant land use impact by potentially physically dividing an established community; or conflicting with adjacent or nearby land uses, applicable land use plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect. (The would not impact a habitat conservation plan or natural community conservation plan since none apply.)

Each of the project land use impacts considered in this section represents a site-specific effect that could not "combine" with land use effects of other past, present, and foreseeable development to create a cumulatively significant effect. For example, Impact LU-1 concludes that the project would not potentially split the existing community in which the project site exists and thus could not combine with other past, present, or foreseeable development that might, in fact, physically divide that same community, without contribution from the proposed project. Impact LU-2 evaluates the changes proposed to the General Plan, Redevelopment Plan, and zoning on the site to accommodate the proposed project – specifically high-density residential development – which are not physical environmental effects that may result from the project and considered by CEQA. Even if other foreseeable development proposes similar changes to General Plan and zoning (to effect industrial to residential conversion), such changes would not be expected to result in physical environmental *land use* impacts. It is relevant to acknowledge the City's current process to consider a comprehensive citywide policy regarding the conversion of industrial lands[15] to residential uses, and that the combined effective of multiple industrial properties converting to residential use could potentially combined to substantially conflict with an applicable land use policy. However, the City has not adopted a policy regarding the industrial land conversion as of preparation of this EIR and the proposed project, which involves an industrial to residential conversion, supports numerous existing General Plan and policies (discussed throughout this section) and visions for the growth and change along the East 12th Street Corridor.

In conclusion, the proposed project would not combine with cumulative development to result in a significant cumulative land use effect.

Mitigation: None Required.

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City of Oakland Redevelopment Agency, *Redevelopment Plan for the Coliseum Redevelopment Project*, June 23, 1995.

Oakland Cultural Heritage Survey (OCHS), *3001-15 East 12th St. Watz (Charles) & Co. Fuel & Express Yard*, *3027-31 East 12th St. Reminder Clock Co. / Bronzini Fruit Store*, and *2647 E. 14th Street – St. Joseph's Home/Little Sisters of the Poor*, Primary Record Forms, Prepared for the OCHS Completion Report, September 30, 1994.

Shutt Moen Associates (SMA) et al., California Airport Land Use Planning Handbook, January 1, 2002.

B. Visual Quality and Shadow

Introduction

This section discusses existing visual conditions on the project site and the project vicinity, and analyzes the potential for the project to affect those conditions. The section focuses on the visual character of the project area, views from surrounding public areas, and effects associated with light and glare, and shadow.

Environmental Setting

Visual Character

Project Vicinity

The project site is located in a developed urban area, in Oakland's flatlands. The project site vicinity is characterized by a mix of commercial, residential, and industrial buildings that vary in terms of age, architectural style and height. The project site is also in proximity to major transportation facilities, including the actively used Union Pacific railroad tracks (immediately south of the project site), I-880 (south of the project site), and the Fruitvale BART Station (east of the project site). (See Section IV.A, *Land Use, Plans, and Policies*, for detailed description of land uses in the project vicinity.) Immediately north of the project site is East 12th Street, and its landscaped median strip that divides the four lanes of eastbound and westbound traffic. The median strip contains grass and some trees that contrast with the concrete supports for the elevated BART tracks, approximately 30 feet above street level and also located within the median. The elevated BART tracks create a visual barrier along East 12th Street, and cast shade onto the areas beneath. Older modeled campers and RVs and trucks associated with adjacent businesses line both sides of East 12th Street. On the north side of East 12th Street, buildings are between one- and five-stories tall. The one- to two-story Cesar Chavez Education Center buildings are brightly painted orange, yellow and blue, and include lush green playfields with lights behind a well-maintained black metal fence. Throughout the day, children are visible on the playfields, and after hours, soccer games are visible. The school campus and its three-story clock tower is visually prominent in the project site vicinity, contrasting with older structures in the project site vicinity, including the two-story Goodwill facility with faded white paint with blue trim, and the 65-foot tall St. Joseph's Professional Center complex constructed of brick with intermittent trees and surrounded by a solid wall along East 12th Street. Further to the north is the International Boulevard commercial/retail district with buildings of varying height (up to eight-stories) and built out to the sidewalk. Some buildings along International Boulevard are visible from the project site (see **Figures IV.B-1a** and **1b**).

To the south, the project site is bordered by the Union Pacific Railroad right-of-way, which comprises several sets of actively used tracks and underground infrastructure. Opposite the railroad tracks, the land use is mixed, and is reflected in the visual characteristics. There are large, structures for manufacturing, including the five-story vacant Lucasey building that dominates

much of the view south of the railroad tracks. Unoccupied, the Lucasey building has many of its windows broken out and graffiti covering much of the building frontages. Also to the south of the project site are single-story self-storage buildings and the City of Oakland Animal Shelter (see **Figure IV.B-2a**). Residential development, about two blocks south of the project site, include the relatively recent Jingletown development, comprised of newer two- to three-story, well-maintained wood-framed multi- and single-family homes that include well-maintained landscaping.

Immediately west of the project site is generally industrial in character. A one-story warehouse-style maintenance facility owned by the Oakland Housing Authority (OHA) is located immediately adjacent to the project site, along its western boundary. The building has few distinguishing features and is oriented toward 25th Street, with a blank wall along East 12th Street. The site includes fenced surface parking for OHA employees, and a corp yard that provides storage for equipment and equipment parts, and above ground storage tanks. To the east of the project site is the Fruitvale BART Station and the recently-developed transit-oriented development, Fruitvale Transit Village. The brightly painted stucco and tile buildings that are part of the Fruitvale Transit Village mixed-use residential and commercial development extend between three and four stories. Views to the east are comprised of surface parking and the western wall of the multi-level parking gray and white garage serving BART patrons, and the elevated BART Station and tracks (see **Figure IV.B-2b**).

Project Site

The irregularly-shaped 9.7-acre project site is located approximately one block west of Fruitvale Avenue, three blocks west of the Fruitvale BART Station, and one block south of International Boulevard. The northern boundary of the project site is formed by East 12th Street, and the elevated BART tracks within the median strip. The site's western boundary is approximately 26th Avenue, which dead-ends at the project site, and the eastern side of the OHA facility (located at the southeastern corner of 25th Avenue) also forms a portion of the site's western boundary. The project site is bordered by Derby Avenue to the east.

The project site is split by 29th Avenue, and the portion of the project site west of 29th Avenue includes a large, one-story self-storage facility, a former hardware store with stucco facade and accompanying lumber yard. The portion of the site east of 29th Avenue includes a grayish one-story, warehouse-style Caltrans maintenance facility, vacant land that extends through the middle of the block, and four two-story commercial buildings that include an auto repair/maintenance shop. Existing buildings are constructed in a hodge-podge of architectural styles, mostly dominated by utilitarian and modern styles that, in general, are built to the perimeter of the property line (see **Figures IV.B-3a and 3b**).

The series of photographs of existing conditions presented in this section collectively reflect the 2005 baseline condition against which the project effects to visual character and scenic resources views are measured.

Figure IV.B1a - Looking north across E. 12th Street toward the Goodwill facility on the northeast corner of 29th Avenue and East 12 Street

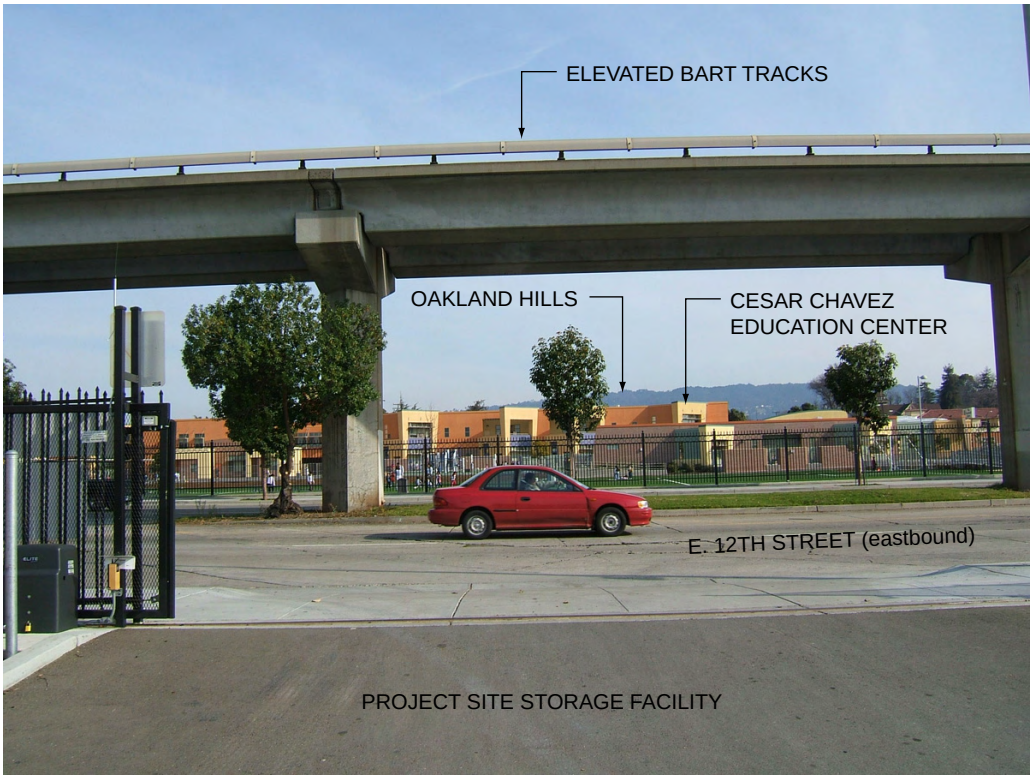


Figure IV.B1b - Looking north from project side driveway arcoss E. 12th Street toward the elevated BART tracks, Cesar Chavez Education Center, and the Oakland Hills

SOURCE: ESA

Figure IV.B-1a and 1b
Views of and from Project Site

Figure IV.B-2a - Looking west from 29th Avenue

Figure IV.B-2b - Looking east from East 12th Street at the BART station near Derby Avenue

SOURCE: ESA

Gateway Community Development Project . 204358

Figure IV.B-2a and 2b
Views of and from Project Site

Figure IV.B-3a - Tuffy Ace Hardware and Lumber Yard, looking south along East 12th Street, near the corner of 29th Avenue

Figure IV.B-3b - Commercial buildings at the project site, between 29th Avenue and Derby Avenue, looking south along East 12th Street from 30th Avenue

SOURCE: ESA

Gateway Community Development Project . 204358

Figure IV.B-3a and 3b
Views of and from Project Site

Light and Glare

The project site is located in a built-out urban environment that has existing sources of light and glare associated with nearby land uses. Major light sources in the area include the Fruitvale BART Station and parking lots that include flood lights, as well as lights along the elevated BART tracks. Additional sources of light include those at nearby residential structures, lights at the Caesar Chavez Elementary School playfields, and street lights along East 12th and Fruitvale Avenue. Lights along International Boulevard are also visible from the project site. The existing uses on the site, including the self-storage facilities and the former hardware store, have security lights and sensor lights.

Shadow

Existing structures on the project site are generally between one- and two-stories, and interspersed with vacant land. Shadow cast by existing buildings on the project site is relatively minimal, although at some times periods throughout the year, existing shadow extends to off-site locations. Shadow diagrams illustrating the 2005 baseline condition against which the project's shadow effects are measured are provided in **Figures IV.B-6a through IV.B-6d and IV.B-7**. The figures provide existing shadow for representative times of day (9:00 a.m., 12:00 noon, and 3:00 p.m.) at the spring equinox (March 21st), on the summer solstice (June 21st), at the autumn equinox (September 21st), and on the winter solstice (December 21st). Shadows on any other day of the year would be within the range of shadows presented during the seasons and times of day. Overall, existing shadow cast from the project site occurs primarily in the morning and afternoon hours during late fall and early winter, when the sun is lowest on the horizon. North and east of the project site, building heights generally range between one- and five-stories, and generate shadow in the project area. Another source of shadow is the elevated BART tracks, which are about 30 feet tall, to the north of the project site.

The site reconnaissance conducted for this analysis did not identify any passive solar heat collectors, solar collectors for hot water heating, or photovoltaic solar collectors in the areas adjacent to the project site. However, the Cesar Chavez Education Center, located to the north of the project site, was designed to maximize daylight for energy efficiency (McCarthy, 2003). There are no historical resources in proximity to the project site vicinity to be affected by the project shadows (see Section IV.M, *Cultural Resources*.), as discussed in the impact analysis below.

Regulatory Framework

Local Plans and Policies

Oakland General Plan policies that pertain to visual quality relevant to the proposed project are contained within the General Plan Open Space, Conservation and Recreation (OSCAR) Element, and the Land Use and Transportation Element (LUTE). Applicable policies include the following:

- Particular attention should be paid to (a) views of the Oakland Hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard. (*OSCAR Policy OS-10.1*)

- New development should minimize adverse visual impacts and take advantage of opportunities for new vistas and scenic enhancement. (*OSCAR Policy OS-10.2*)

- Oakland's underutilized visual resources, including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares should be enhanced. (*OSCAR Policy OS-10.3*)

- High quality design standards should be required of all new residential construction. Design requirements and permitting procedures should be developed and implemented in a manner that is sensitive to the added costs of those requirements and procedures. *(LUTE Policy N3.8)*

- Residential developments should be encouraged to face the street, and orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure. (*LUTE Policy N3.9*)

- Off-street parking for residential buildings should be adequate in amount and conveniently located and laid out, but its visual prominence should be minimized. (*LUTE Policy N3.10*)

Scenic Highways Element

The City's Scenic Highways Element of the General Plan (adopted 1974) includes a number of policies that pertain to visual resources identified as part of the Caltrans Scenic Highway Program. Policies within the City's Highways Element aim to limit signage and visual intrusions and protect panoramic vistas along scenic corridors, and to ensure that new construction within scenic corridors demonstrate "architectural merit" and are "harmonious" with the surrounding landscape. The entire length of MacArthur Freeway (I-580) is identified as part of the Caltrans Scenic Highways Program. I-580 is more than two miles north of the project site, and the project site is not within the I-580 scenic route corridor or any other Scenic Highway.

Impacts and Mitigation Measures

Significance Criteria

The project would have a significant visual quality impact related to visual character, views, light and glare, or shadows, if it would:

- Have a substantial adverse effect on a scenic vista;

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or locally designated scenic highway;

- Substantially degrade the existing visual character or quality of the site and its surroundings;

- Create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;

- Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986);

- Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;

- Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space;

- Cast shadow on an historic resource, as defined by CEQA Section 15064.5(a) such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, local register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5;

- Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses; or

- Create winds exceeding 36 mph for more than 1 hour during daylight hours during the year. [The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown Oakland (as defined by the General Plan)].

Topics for which No Impact Would Result

While certain buildings in the project would exceed 100 feet in height, the project site is not located near any body of water or Downtown Oakland. Therefore, the project is not subject to the wind hazards criterion, and the topic is not discussed further in this EIR.

Impacts

Scenic Vistas or Resources

Impact AES-1: The proposed project would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources. (Less than Significant)

The project site is located within the OSCAR's Fruitvale Planning Area**.** This planning area is urbanized, on relatively flat terrain, with residential, commercial and light industrial uses. The project site occupies approximately 9.7 acres on the southern side of East 12th Street between the elevated BART tracks and the Union Pacific Railroad right-of-way, and between Derby and approximately 26th Avenue. Presently, the site is occupied by a self-storage facility, a commercial hardware store and lumber yard, a few free-standing commercial buildings, and a Caltrans Maintenance Facility.

The analysis of the project's effect on scenic vistas and whether the project would substantially damage scenic resources, focuses on changes to existing, notable public viewsheds that would result from the project. The project site is within an urban and built-up environment, and scenic resources and views at the site and vicinity are generally limited to long-range views of the Oakland hills to the north. North of the project site, existing development along the northern side of East 12th Street and the elevated BART tracks limits long-range views of the hills from the project site, and views often consist of glimpses between structures, or from perpendicular streets. Development north of the project site consists mainly of two- and three-story commercial structures, with some four-story and taller structures interspersed. Current development at the site, some of which is two-stories in height, and the elevated BART tracks, already hamper long-range view of the hills from areas south of the site. The project would curtail views of the Oakland hills from areas south of the site, between East 12th Street and East 9th Street. However, these views resurface along I-880.

The Caltrans Scenic Route Program identifies the Oakland segment of I-580 as a designated California Scenic Route. However, I-580 is more than two miles north of the project site, and the project is not within the I-580 scenic route corridor.

Because the project would only minimally affect long-range views of the Oakland hills in the immediate vicinity of the project site, which are limited to perpendicular streets, because the project would not result in any street closures, and because the project site is not part of or nearby to a designated scenic route corridor, the project would have a less than significant impact on scenic resources or scenic vistas.

Mitigation: None Required.

Visual Character

Impact AES-2: The proposed project would alter the existing visual conditions on the project site, but would not substantially degrade the existing visual character or quality of the site and its surroundings. (Potentially Significant)

The proposed project would result in a substantial change to the visual character of the site by the proposed demolition of existing on-site structures and the new construction of multifamily residential buildings and residential towers, some with ground floor commercial space. **Figures IV.B-4 and IV.B-5** provide illustrative images of the project that convey the character of the development. Project construction is anticipated to occur over six phases. Four multifamily residential buildings constructed on Sites I through IV, and two residential towers for Sites V and VI. The new multifamily buildings would vary from seven to twelve stories, with the two residential towers extending to 15 and 16 stories.

New, three-story townhouses (up to 30 feet tall) would front East 12th Street, setback from the street by landscaping, and the third floor of the townhouse buildings would be setback from the

first two floors to maintain a pedestrian scale along the street frontage. The project design would enhance the pedestrian environment along East 12th Street through the pedestrian-scale frontage, integration of ground floor commercial space, and the use of landscaping. New landscaping would enhance the pedestrian environment by reducing the visual prominence of the concrete elevated BART tracks and supports, and adjacent roadway. Multifamily buildings south of the townhouses would extend to 12 stories, with resident parking on the first two or three stories and dwelling units above. The three- and 12-story portions of the proposed project (planned for Sites I through IV) generally would generally be consistent with existing development along International Boulevard which extend six and eight stories in height: the eight-story Fruitvale Gateway Building is located at 2648 International Boulevard, and the six-story Fruitvale Medical Building is located at 2946 International Boulevard, a little over one block from the project site. A new five-story mixed-use building, near the Fruitvale Medical Building, is in the planning stages. Residential towers are also under consideration for other sites in the Fruitvale area. Other buildings, such as the Goodwill facility, the Lucasey Manufacturing Corporation building located west of the project site (see Figures IV.B.1a through B.3b), and the Fruitvale BART garage is only four to five stories, but substantial in mass.

The proposed residential towers would be situated on a two-story podium and would be the tallest buildings in the area, extending to 15 and 16 stories (Sites V and VI). These towers would contrast with the existing visual environment as viewed from I-880, I-580 and views as far away as Skyline Boulevard, nearly 4.5 miles north of the site. Views of the tower elements of these the structures on Sites V and VI, however, would likely be obstructed by existing surrounding development (including the BART tracks), except from BART.

The proposed two residential towers, would be taller then most other structures in the area. The site vicinity includes the elevated BART tracks that are approximately 30 feet above the street the surface, and results in a visual barrier between the north and south side of East 12th Street. Project buildings would not be the sole visual reference in the project site vicinity. Other buildings, as noted above, have similar massing, and extend up to eight stories in height. Taking into account roofing elements and rooftop mechanical equipment, some of these buildings extend another full floor or more.

The Fruitvale neighborhood is interspersed with new development and transit-oriented design. The Fruitvale Transit Village is three to four stories, and the elevated BART tracks, station and garage are three to four stories. The project, by revitalizing the blocks adjacent to the elevated BART tracks, would bring a more cohesive feel to the neighborhood by extending the new development between the Fruitvale Transit Village and Jingletown Homes, while complementing current development trends adjacent to BART stations and the Jingletown vicinity. The project would also enhance the East 12th Street frontage with the inclusion of ground floor commercial spaces that that would contribute to pedestrian activity, and the addition of landscaping. New landscaping would add greenery to the visual environment, thereby interrupting the existing pattern of light-colored warehouse buildings and the prominent concrete supports of the elevate BART tracks.

In the past, many industrial buildings in the area included a silo for storage or a water tower. Most of these industrial buildings have been demolished, although a remnant remains at the Fruitvale Station Shopping Center. The tallest building in the project site would be reminiscent of these building elements, now gone.

As a standard requirement, because the project is a PUD, prior to the issuance of any building permits, at each Phase, the project applicant would submit the final project design – as a Final Development Plan (FPD) - including all exterior design details, proposed signs, and the final selection of exterior materials, colors and textures to the Planning and Zoning Division. The final design, or FDP, would be subject to the approval by the Planning Commission.

As a result of the design review required by both staff and the Planning Commission (as part of the proposed PUD as well as the proposed S-4 Zone), the proposed project would not degrade the visual quality of the site or the vicinity and would be consistent with the transit-oriented development around the Fruitvale BART Station.

Mitigation: None Required.

Impact AES-3: The proposed project would create a new source light or glare, but would not adversely affect day or nighttime views in the area. (Less than Significant)

Existing uses on the project site have security lights and sensor lights that provide an existing source of nighttime lighting. The proposed may increase the amount of night lighting from decorative and functional lighting associated with quality, multifamily development commercial uses, as well as the incidence of glare from window glazing, while eliminating the existing industrial lighting. Further, the project within an area that includes existing sources of nighttime lighting such as the Cesar Chavez Education Center playfield lights, Fruitvale BART Station, street and commercial lighting along International Boulevard and Fruitvale Avenue, the project's height and mass would make light from the proposed project discernible from off-site locations. The impact would be less than significant.

The project applicant would be required to comply with the following standard condition that would ensure the lighting and glare effects associated with the project remain less than significant:

> **Standard Condition AES-3:** The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. All lighting shall be architecturally integrated into the site.

Mitigation: None Required.

Impact AES-4: The proposed project would result in additional shadow on adjacent areas, however, the project would not cast shadow on historic resources; would not introduce landscaping conflicting with the California Public Resources Code; would not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and would not cast shadow that substantially impairs the use of any public or quasi-public park, lawn, garden, or open space. (Less than Significant)

The project's shadow effects were analyzed for representative times of day (9:00 a.m., 12:00 noon, and 3:00 p.m.) during the following four times of year:

- March 21st at the spring equinox, when shadows are midway through a period of shortening;
- June 21st on the summer solstice, when the sun is at its highest and shadows are at their shortest;
- September 21st at the autumn equinox, when shadows are midway through a period of lengthening; and
- December 21st on the winter solstice, when the sun is at its lowest and shadows are at their longest.

Shadows on any other day of the year would be within the range of shadows presented during the seasons and times of day described above. **Figures IV.B-4a through IV.B-4d** illustrate the shading effects associated with the proposed project for the aforementioned times of day and seasons. These diagrams are generalized, though accurate, and convey the relative shadow effects for project area. The project's greatest shadow effects would occur during late fall and early winter, when the sun is lowest on the horizon. As discussed in more detail, below, the proposed 15- and 16-story towers on Sites V and VI would generate the most new shadow relative to the balance of the proposed three- to twelve-story buildings that will occur on Sites I through IV. New shadow is described by season.

In March and September,[1] morning shadow would fall in a westerly direction, newly shading the OHA's maintenance facility. At noon, project shadow would extend in a northwesterly direction, shading a portion of the eastbound sidewalk and travel lanes of East 12th Street. Adjacent to the proposed towers, some new shadow would extend on to the elevated BART tracks. By 3:00 p.m., project shadow would extend in a northeasterly direction and result in new shade along portions of both sides of East 12th Street and along the project frontage on East 12th Street. Shadow generated by the proposed towers would extend across the elevated BART tracks, and on to existing residential and commercial uses situated along the southern frontage of East 12th Street.

In June, when shadows are shortest, shadows would be cast in a westerly and southwesterly direction at 9:00 a.m. At this time, off-site shadow would partially encroach onto the Union Pacific Railroad Right-of-way as well as on adjacent development to the west. By noon, project

[1] March and September shadows are similar in length and direction, although they are offset by one hour from one another because March is during standard time, while September is during daylight saving time.

9:00 AM | 12:00 PM | 3:00 PM

EXISTING CONDITIONS

PROPOSED CONDITIONS

North for purposes of document

True North

MARCH 21st SHADOW STUDY

SOURCE: MBH Architects

Gateway Community Development Project . 204358

Figure IV.B-4a
March 21st Shadow Study

9:00 AM

12:00 PM

3:00 PM

EXISTING CONDITIONS

PROPOSED CONDITIONS

True North

North for purposes of document

JUNE 21st SHADOW STUDY

SOURCE: MBH Architects

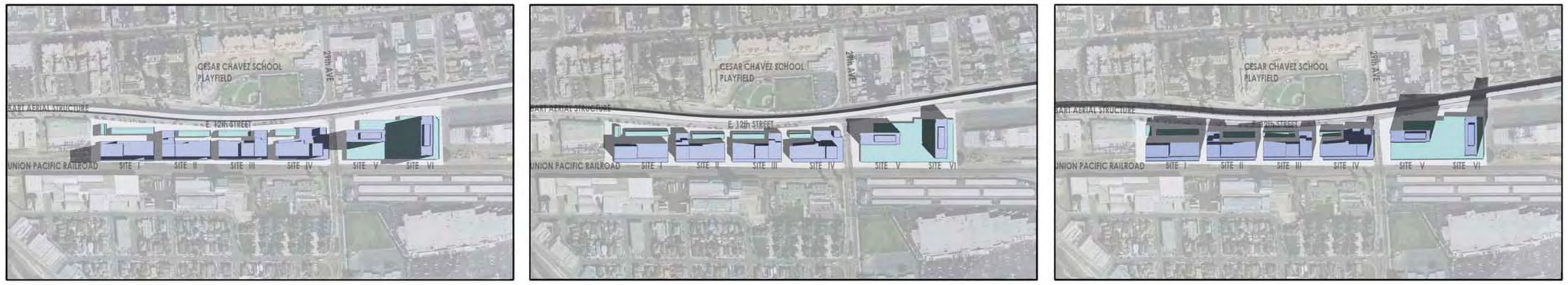
Figure IV.B-4b
June 21st Shadow Study

9:00 AM

12:00 PM

3:00 PM

EXISTING CONDITIONS



PROPOSED CONDITIONS

True North

North for purposes of document

SEPTEMBER 21st SHADOW STUDY

SOURCE: MBH Architects

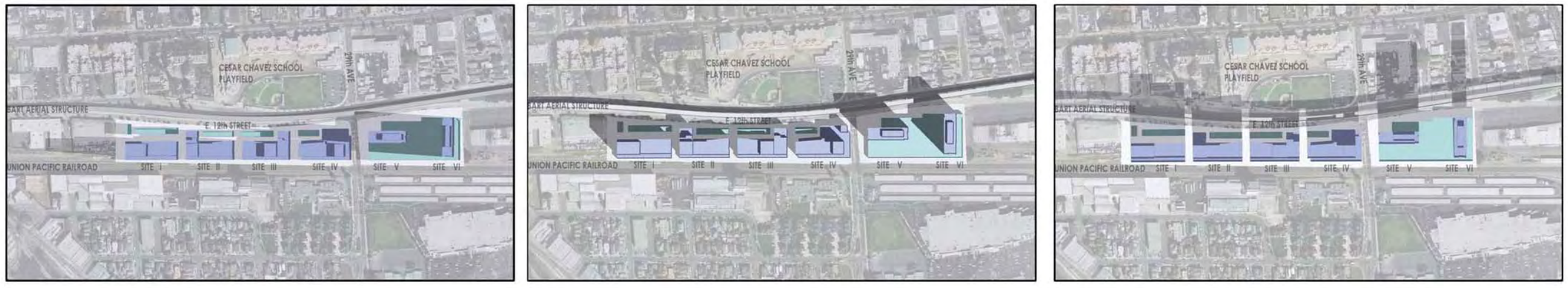
Figure IV.B-4c
September 21st Shadow Study

9:00 AM

12:00 PM

3:00 PM

EXISTING CONDITIONS



PROPOSED CONDITIONS

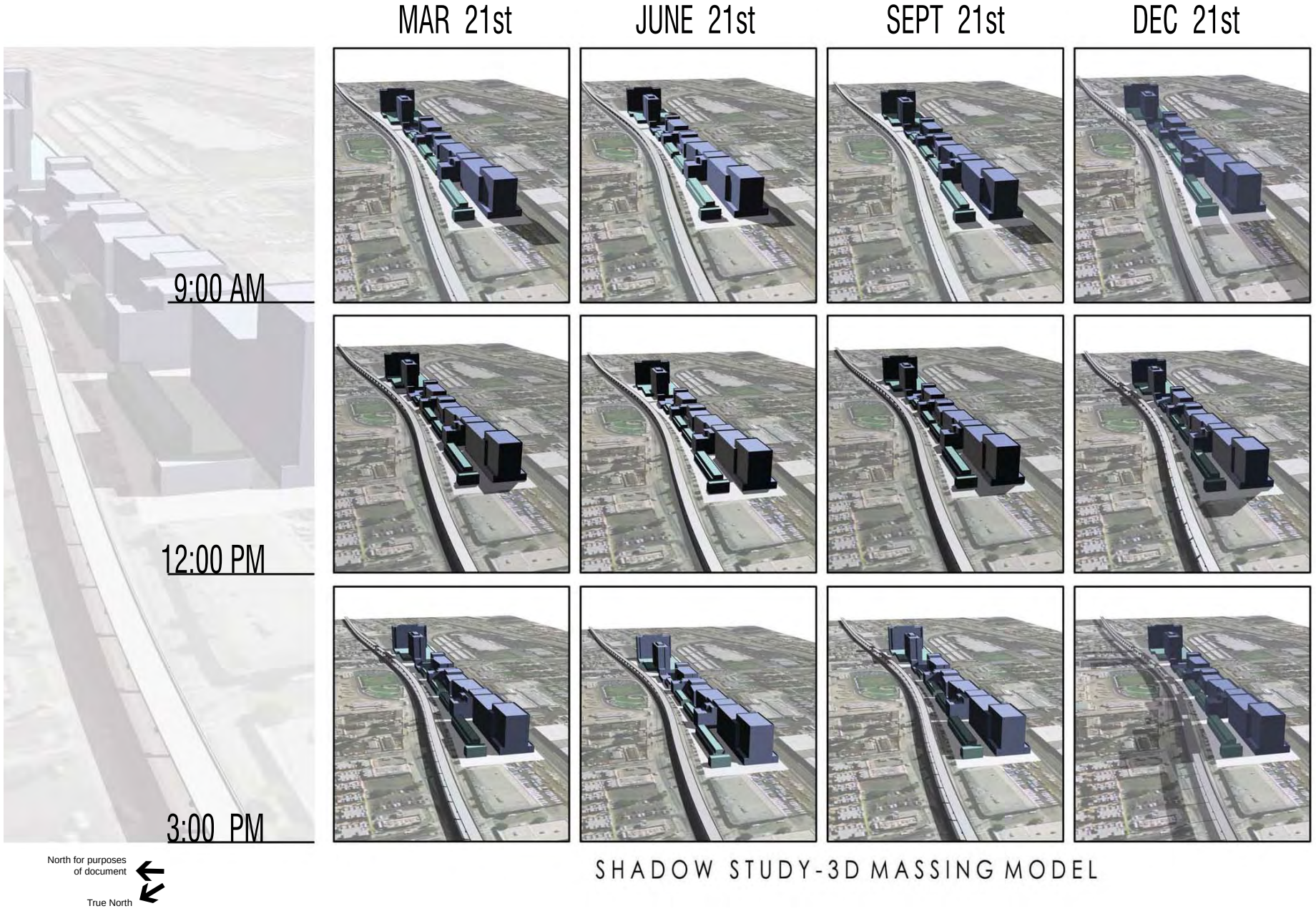
True North

North for purposes of document

DECEMBER 21st SHADOW STUDY

SOURCE: MBH Architects

Figure IV.B-4d
December 21st Shadow Study



SOURCE: MBH Architects

Gateway Community Development Project . 204358

Figure IV.B-5
3D Massing Shadow Study

shadow would cast a very minimal shadow that would almost be fully contained within the project site. At 3:00 p.m., the project would cast a shadow in a northeasterly direction, on portions of the sidewalk and eastbound traffic lanes along East 12th Street.

In December, when shadows are longest, at 9:00 a.m. project shadow would fall in a westerly and northerly direction. To the west, the OHA's maintenance facility would be shaded, and to the north project shadow would extend along a portion of East 12th Street and the elevated BART tracks. By noon, project shadow would extend in a northwesterly direction, resulting in shade along portions of the project frontage and the eastbound direction of East 12th Street. Shadow generated by the proposed towers would extend across the elevated BART tracks, and onto existing residential and commercial uses situated along the southern frontage of East 12th Street. At 3:00 p.m., the project shadow would reach across East 12th Street, shading existing commercial, residential, and a negligible portion of the Cesar Chavez Education Center playfields. This only period of the year - late afternoon in December - that a portion of the playfield would be shaded. Shadow generated by the proposed towers would cast the greatest amount of shadow, covering much of the two blocks north of East 12th Street, between 29th Avenue and Derby Street.

Overall, new shadows cast by the project would affect parcels to the north of the project site along East 12th Street, and the adjacent block to the east. Existing development on the project site and the elevated BART tracks currently casts shadows onto East 12th Street and the project site frontage. The newly cast shadows generated by the project would be extended during the mid-day hours (noon to 3:00 p.m.) in the late fall and winter.

As indicated in the Setting discussion, site reconnaissance conducted for this analysis did not observe any passive solar heat collectors, solar collectors for hot water heating, or photovoltaic solar collectors in the areas adjacent to the project site or that might be affected by project shadow. Although there are no solar systems in the project site vicinity that would be affected by project building or landscaping shadow, the Cesar Chavez Education Center was designed to maximize daylight for energy efficiency (McCarthy, 2003). As described above, project shadow would shade the portion of the playfields closest to East 12th Street, away from the school buildings. Therefore, project shadow generated by proposed buildings and on-site landscaping would not substantially impair the function of a building that may be using a solar heating system.

Additionally, there are no historical resources in the project site vicinity, and project shadow would not materially impair a resource's historic significance. (See the discussion provided in Section IV.M, *Cultural Resources*.)

The project would shade a southern portion of the Cesar Chavez Education Center in the afternoon (3:00 p.m.) during the winter solstice. A portion of the playfields is currently shaded during the winter solstice by the elevated BART tracks. New shadow would "fill in" a narrow portion of the area currently in sunlight "beneath" the shadow cast by the elevated BART tracks, and also would extend beyond the shadow from the elevated BART tracks. Additionally, project shadow would occur over a relatively limited period of the year (during the winter solstice). The

playfields includes lighting for after dark. Therefore, the project would not substantially impair the beneficial use of the playfields, and would not result in a significant adverse impact. There are no other nearby public or quasi-public park, lawn, garden, or open space that would be affected by project shadow.

Based on the above, the project's impact with respect to shadow would be less than significant.

Mitigation: None Required.

Impact AES-5: The proposed project would require approval of a general plan amendment and rezoning (among other discretionary approvals), but would be consistent with the policies and regulations addressing the provision of adequate light related to appropriate uses. (Less than Significant)

The project would require approval of a General Plan Amendment and Rezoning, among other discretionary approval pursuant to the Oakland Planning Code and the Subdivision Regulation. As discussed in detail in Section IV.A, *Land Use, Plans, and Policies*, The project sponsor proposes to build the project as a PUD, and proposes to change the General Plan land use designations *from Mixed Housing Type, Business Mix, and Regional Commercial to Community Commercial,* and to change the Zoning from M-30 General Industrial to C-45 Community Shopping Commercial Regulations, which allows a maximum density consistent with an R-80 residential zone), and S-4 Design Review Combining Zone, which establishes procedures for the design review of all procedures for the design review of new and altered structures. The project would also require design review as it is a PUD and design review is required by the zoning. Through the Design Review process and final building plan approval and permitting process for each building, the City will ensure project consistency with the light and ventilation section (Section 1203) of the Uniform Building Code, the City's Outdoor Lighting Standards (City of Oakland, 2002). Additionally, the proposed project does not appear inconsistent with the General Plan policies regarding the overall orientation of residential development (*LUTE N3.9*) and provision of useable open space (*OSCAR OS4.1*).

The project orients the living spaces of the residential units on all floors toward the building's exterior to maximize sunlight access. Although the proposed project would cast shadow on nearby buildings, particularly during the winter and fall seasons at certain times of the day, indirect sunlight would still be available to windows of nearby buildings. Furthermore, the intensity of residential development proposed is consistent with the General Plan and the level of sunlight, noise, and privacy is consistent with that typically found and anticipated for residential living within an urban, transit-oriented setting. Also, the project would be generally consistent with relevant policies that address the provision of adequate light and ventilation, as discussed in Section IV.A, *Land Use, Plans, and Policies*.

The project proposes usable outdoor open space, and would include a landscaped podium in each building providing either common or private open space, oriented towards the afternoon and

evening sun. Thus, the project is consistent with relevant policies and regulations regarding the provision of light and usable open spaces and therefore would not have a significant impact.

Mitigation: None Required.

Cumulative Impacts

Impact AES-6: The proposed project, when combined with other foreseeable development in the vicinity, as identified in the Oakland cumulative growth scenario, could result in cumulative impacts related to visual character views, aesthetics, shadow, light and glare. (Less than Significant)

Implementation of the proposed project in combination with other reasonably foreseeable development in the project vicinity (see **Appendix E** to this EIR for a description of the cumulative growth scenario) would not result in significant adverse changes to the visual environment, including visual character and views, light and glare, and shadow. New multifamily residential and commercial redevelopment may occur within the project site vicinity, generally in proximity to the Fruitvale BART Station. New development would, in general, occur as redevelopment projects, by replacing existing development with more intense development as the project site vicinity is largely built out. All future development that could occur in the project site vicinity would be required to adhere to established restrictions, guidelines, policies, and criteria that address building appearance, height, bulk, and configuration, and the type of land use. Therefore, it is reasonable to assume that future development would not necessarily constitute an adverse effect on the visual character of the area, or generate substantial amounts of new light and glare, and shadow. Thus, there would be no significant cumulative aesthetic impacts, nor would the effect of the proposed project, in combination with other foreseeable projects, be cumulatively considerable.

Mitigation: None Required.

References – Visual Quality and Shadows

California Department of Transportation, The California Scenic Highway System, http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm, accessed June 14, 2005.

City of Oakland, *General Plan, Land Use and Transportation Element (LUTE)*, March 24, 1998, as amended.

City of Oakland, *General Plan, Open Space, Conservation and Recreation (OSCAR) Element*, June 1996.

City of Oakland, *General Plan, Scenic Highways Element*, adopted September 1974.

MaCarthy Building Companies, Oakland Unified School District Cesar Chavez Education Center, 2003.

Uniform Building Code, Section 1203 Outdoor Lighting Standards, 2002.

C. Transportation, Circulation, and Parking

This chapter describes: (1) the existing and planned transportation system in the vicinity of the proposed project, including roadway, bicycle, pedestrian, and transit facilities; (2) the anticipated impacts of the project on these facilities; and (3) associated mitigation measures

Environmental Setting

Existing Street and Highway System

Regional Access

Interstate 880 (I-880) is a major north-south regional freeway (which runs east-west in the vicinity of the project) that is located south of the project site, extending between I-80 and I-580 in Emeryville and I-280 in San Jose.[1] There are four lanes in each direction in the general vicinity of project area. Access to and from the study area is provided at freeway on- and off-ramps at 29th Avenue and 23rd Avenue. Annual average daily traffic on I-880 north of 29th Avenue was 219,000 vehicles and south of 29th Avenue was 214,000.[2]

Local Access

East 12th Street is a four-lane east-west arterial that borders the northern edge of the project site, extending from Lake Merritt to 54th Avenue. Intersections at major cross streets are signalized along East 12th Street. The average daily traffic volume along East 12th Street at its intersection with 29th Avenue is approximately 13,870 vehicles.

International Boulevard is a four-lane east-west arterial, extending from Lake Merritt in Oakland to Jackson Street in Hayward via the City of San Leandro. Intersections at major cross streets are signalized along International Boulevard.

International Boulevard is a four-lane east-west arterial extending from downtown Oakland that becomes International Boulevard at Lake Merritt. In the project vicinity, the roadway is signed as International Boulevard.

29th Avenue is a four-lane north-south arterial that bisects the project site. The roadway extends from East 17th Street to Alameda, where it turns into Park Street. 29th Avenue is one of three study area roadways providing a connection between the City of Alameda and Oakland. The average daily traffic volume along 29th Avenue at its intersection with East 12th Street is approximately 7,840 vehicles.

Fruitvale Avenue is a four-lane arterial in the vicinity of the project site, and extends from I-580 to Alameda, where it turns into Tilden Way. Fruitvale Avenue is one of three study area roadways providing a connection between the City of Alameda and Oakland.

1 Following the City of Oakland convention of the hills to the north and the bay to the south, International Boulevard and roads parallel to it, such as 12th Street, are considered to run east-west, while and 29th Avenue and roads parallel to it are considered to run north-south. To be consistent with the California Department of Transportation's (Caltrans') directional designation of I-880 as a north-south freeway, however, on- and off-ramps are described as northbound and southbound, rather than eastbound and westbound, respectively.

2 Caltrans, Year 2005 Traffic Volumes on the State Highway System.

San Leandro Street is a four-lane east-west collector roadway that extends from Fruitvale Avenue in Oakland to the City of San Leandro along the west side of the BART line.

Foothill Boulevard is a four-lane east-west collector, extending from Lake Merritt to 73rd Avenue.

High Street is a four-lane arterial in the vicinity of the project site, and extends from I-580 through Alameda. High Street is one of three study area roadways providing a connection between the City of Alameda and Oakland.

42nd Avenue is a four-lane north-south collector, extending from Santa Rita Street to I-880.

38th Avenue is a two-lane north-south local road, extending from I-580 to East 12th Street.

35th Avenue is a four-lane north-south collector, extending from north of I-580 to San Leandro Street.

Derby Avenue is a two-lane north-south local road that borders the eastern edge of the project site, extending from East 10th Street to East 15th Street.

30th Avenue is a two-lane north-south local road that connects East 12th Street with International Boulevard.

26th Avenue is a two-lane north-south local road that connects East 12th Street with International Boulevard.

25th Avenue is a two-lane north-south local road that extends from Foothill Boulevard to East 12th Street.

23rd Avenue is a two-lane north-south collector, extending from I-580 to 29th Avenue.

22nd Avenue is a four-lane north-south collector, extending from East 21st Street to East 12th Street.

East 7th Street is a four-lane east-west collector that connects 23rd Avenue to Kennedy Street, and 29th Avenue to Fruitvale Avenue.

Kennedy Street is a four-lane north-south collector, extending from I-880 (to the north) to 23rd Avenue (to the south).

Park Street is a four-lane north-south arterial that extends from Shoreline Drive in Alameda to the west to Oakland, where it turns into 29th Avenue.

Clement Avenue is a two-lane east-west local road in Alameda that extends from Grand Avenue to the west to Broadway to the east.

Buena Vista Avenue is a two-lane east-west collector in Alameda that extends from Poggi Avenue to the west to Northwood Drive to the east.

Lincoln Avenue is a four-lane east-west arterial in Alameda that extends from Central Avenue to the west to High Street to the east.

Baseline Traffic Conditions

The traffic conditions in urban areas are affected more by the operations at the intersections than by the capacities of the local streets because traffic control devices (signals and stop signs) at

intersections control the capacity of the street segments. The operations are measured in terms of Level of Service (LOS), which is based on average delay per vehicle experienced at an intersection. That delay is a function of the signal timing, intersection lane widths and configuration, hourly traffic volumes, pedestrian volumes, and parking and bus conflicts. Conditions were determined for weekday a.m. and p.m. peak hours. Weekday traffic counts were collected in August and November of 2004 during non-holiday periods and establish the environmental baseline against which the project's traffic impacts are measured.

Level of Service Analysis Methodologies

The operation of a local roadway network is commonly measured and described using Level of Service. The LOS grading system qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating free-flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long queues and delays). This LOS grading system applies to both signalized and unsignalized intersections. LOS A, B, and C are generally considered satisfactory service levels, while the influence of congestion becomes more noticeable (though still considered acceptable) at LOS D. LOS E and F are generally considered to be unacceptable.

Signalized Intersections

At the signalized study intersections, traffic conditions were evaluated using the *2000 Highway Capacity Manual* (2000 HCM) operations methodology. The operational analysis uses various intersection characteristics (e.g., traffic volumes, pedestrian volumes, lane geometry, and signal phasing/timing) to estimate the average control delay experienced by motorists traveling through an intersection.[3] **Table IV.C-1** summarizes the relationship between control delay and LOS. It should be noted that for the sake of consistency, existing (i.e., consistent with period of traffic count baseline, 2004) signal timing has been assumed for all future scenarios.

Unsignalized Intersections

For the unsignalized (two-way stop-controlled) study intersections, traffic conditions were evaluated using the 2000 HCM operations methodology. With this methodology, the LOS is related to the delay per vehicle for each stop-controlled movement or approach. Delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for a vehicle to travel from the last-in-queue position to the first-in-queue position. **Table IV.C-1** summarizes the relationship between delay and level of service.

[3] Control delay, which is the portion of total delay attributed to traffic signal operation for signalized intersections, includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The use of control delay as the basis for defining LOS differs from earlier versions of the *Highway Capacity Manual* methodology, which used "stopped delay" (i.e., a portion of the total control delay) to define LOS.

TABLE IV.C-1
DEFINITIONS FOR INTERSECTION LEVEL OF SERVICE

Unsignalized Intersections		Level of Service Grade	Signalized Intersections	
Description	Average Total Vehicle Delay (Seconds)		Average Control Vehicle Delay (Seconds)	Description
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
Operations with minor delay.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion is more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

SOURCE: Transportation Research Board, *Highway Capacity Manual*, 2000.

Freeways

Table IV.C-2 presents the criteria for the freeway level of service based on volume-to-capacity ratio and vehicle density based on the 2000 HCM. Freeway conditions are reported herein on the basis of both criteria because the City of Oakland uses the volume-to-capacity ratio methodology for its analyses, whereas Caltrans uses the density methodology. The volume-to-capacity ratio methodolgy required by the City of Oakland is the criteria used to determine if the project has a significant traffic impact.

TABLE IV.C-2
CRITERIA FOR FREEWAY LEVEL OF SERVICE (LOS)

Volume-to-Capacity Ratio[a]	LOS Grade	Vehicle Density (pc / mile / lane)[b]
≤0.30	A	≤11
>0.30 and ≤0.49	B	>11 and ≤18
>0.49 and ≤0.70	C	>18 and ≤26
>0.70 and ≤0.90	D	>26 and ≤35
>0.90 and ≤1.00	E	>35 and ≤40
>1.00	F	>40

[a] Free-flow speed is assumed to be 60 mile/hr.
[b] Passenger car equivalents per mile per lane.

SOURCE: Transportation Research Board, *Highway Capacity Manual*, 2000.

Baseline Intersection Traffic Operating Conditions

All intersections which could potentially be affected by traffic generated by the proposed project were tested and screened for inclusion in the traffic analysis. Those intersections which could potentially be significantly impacted by project related traffic were evaluated in detail in the study. To identify intersections which could potentially be impacted by project related traffic, the City's intersection screening criteria was applied to the project's trip generation. All intersections which satisfy the following criterion are included in the study analysis:

- Intersections to which the project would add 30 or more peak hour trips.

It is at intersections which satisfy this criterion that the project could result in a significant adverse impact. This threshold is based on analysis performed by the City and show that 30 to 40 trips can reasonably cause and intersection operating at LOS C to deteriorate to LOS E.[4]

Analysis of peak-hour traffic conditions was conducted at 32 intersections in the project vicinity (26 signalized and six unsignalized). The signalized intersections were identified as intersections which would satisfy the City's intersection screening criteria and where an intersection could potentially operate at an unacceptable level of service as a result of planned cumulative growth. Unsignalized intersections abutting the project site are also included in the analysis. The 32 analysis intersections are listed below and illustrated in **Figure IV.C-1**:

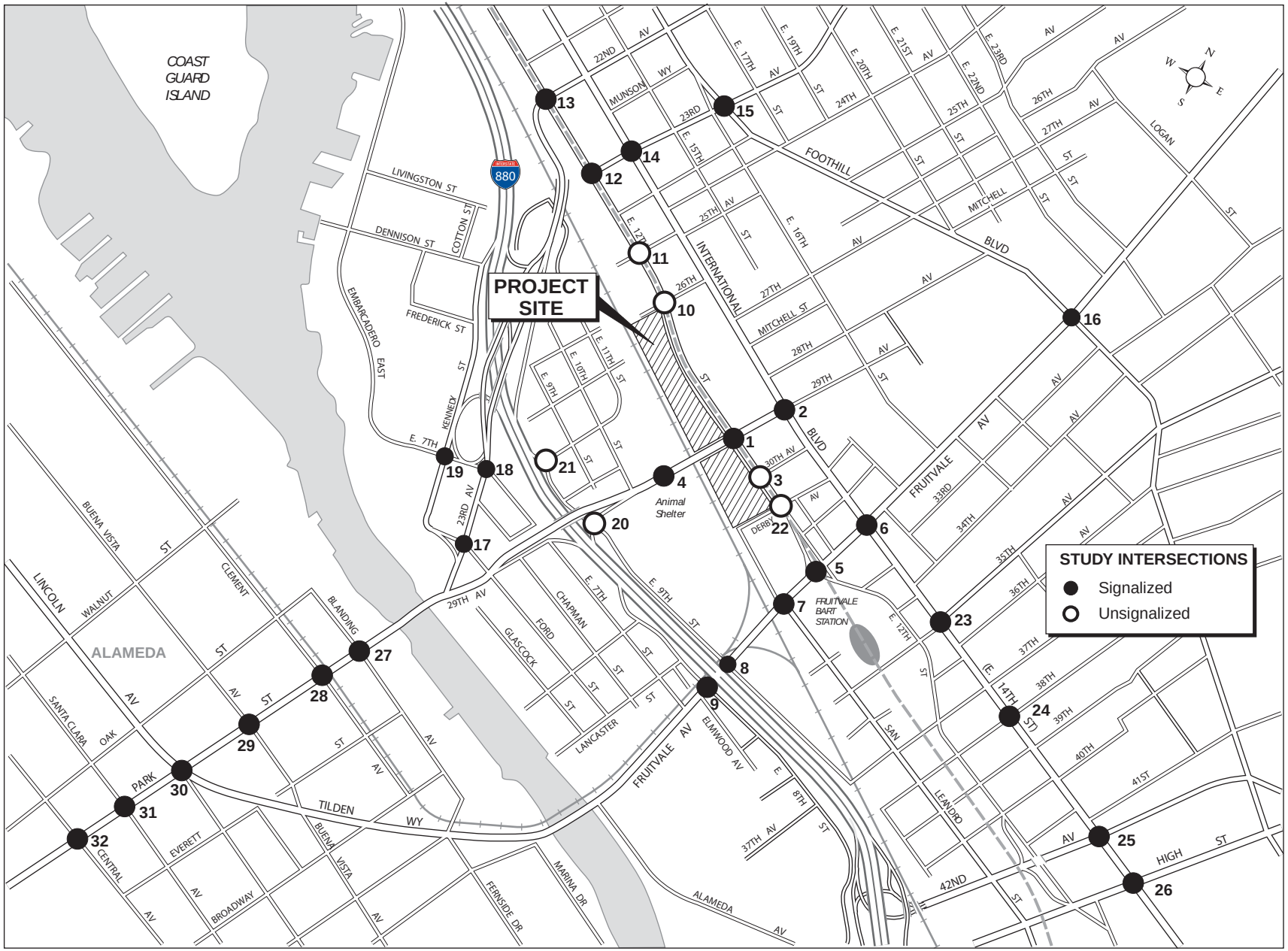
1. East 12th Street and 29th Avenue (signalized);
2. International Boulevard and 29th Avenue (signalized);
3. East 12th Street and 30th Avenue (unsignalized);
4. Animal Shelter Access and 29th Avenue (signalized);
5. East 12th Street and Fruitvale Avenue (signalized);
6. International Boulevard and Fruitvale Avenue (signalized);

[4] City of Oakland Transportation Services Division, *Fruitvale Gateway Traffic Impact Study Development Review*, October 11, 2006.

7. San Leandro Street and Fruitvale Avenue (signalized);
8. East 9th Street and Fruitvale Avenue (signalized);
9. East 8th Street and Fruitvale Avenue (signalized);
10. East 12th Street and 26th Avenue (unsignalized);
11. East 12th Street and 25th Avenue (unsignalized);
12. East 12th Street and 23rd Avenue (signalized);
13. East 12th Street and 22nd Avenue (signalized);
14. International Boulevard and 23rd Avenue (signalized);
15. Foothill Boulevard and 23rd Avenue (signalized);
16. Foothill Boulevard and Fruitvale Avenue (signalized);
17. Kennedy Street and 23rd Avenue (signalized);
18. East 7th Street and 23rd Avenue (signalized);
19. East 7th Street and Kennedy Street (signalized);
20. East 9th Street and I-880 Northbound I-880 Off-Ramp (unsignalized);
21. East 8th Street and Lisbon Avenue (unsignalized);
22. East 12th Street and Derby Avenue (unsignalized);
23. International Boulevard and 35th Avenue (signalized);
24. International Boulevard and 38th Avenue (signalized);
25. International Boulevard and 42nd Avenue (signalized);
26. International Boulevard and High Street (signalized);
27. Blanding Avenue and Park Street (signalized);
28. Clement Avenue and Park Street (signalized);
29. Buena Vista Avenue and Park Street (signalized);
30. Lincoln Avenue and Park Street (signalized);
31. Santa Clara Avenue and Park Street (signalized); and
32. Central Avenue and Park Street (signalized).

Figures IV.C-2a through **Figure IV.C-2c** illustrate the baseline lane geometry and traffic control at the study intersections. Baseline a.m. and p.m. peak hour traffic volumes are presented in **Figures IV.C-3a** through **Figure IV.C-3c**. The baseline a.m. and p.m. peak-hour intersection LOS and delays are summarized in **Table IV.C-3**. All but three of the signalized study intersections currently operate under acceptable conditions (LOS D or better). The East 9th Street at Fruitvale Avenue intersection operates at LOS E during the p.m. peak hour. The Foothill Boulevard at Fruitvale Avenue intersection operates at LOS E during both peak hours. The International Boulevard at 42nd Avenue intersection operates at LOS F during the p.m. peak hour. The East 9th Street at I-880 Northbound Off-Ramp all-way stop controlled intersection operates at LOS F during both peak hours. The worst minor approach at the East 12th Street and 25th Avenue two-way stop controlled intersection operates below acceptable conditions, but the intersection as a whole operates at LOS A.[5]

[5] The worst minor approach to an unsignalized intersection is the stop controlled approach which experiences the highest average delay.



SOURCE: Korve Engineering, 2007

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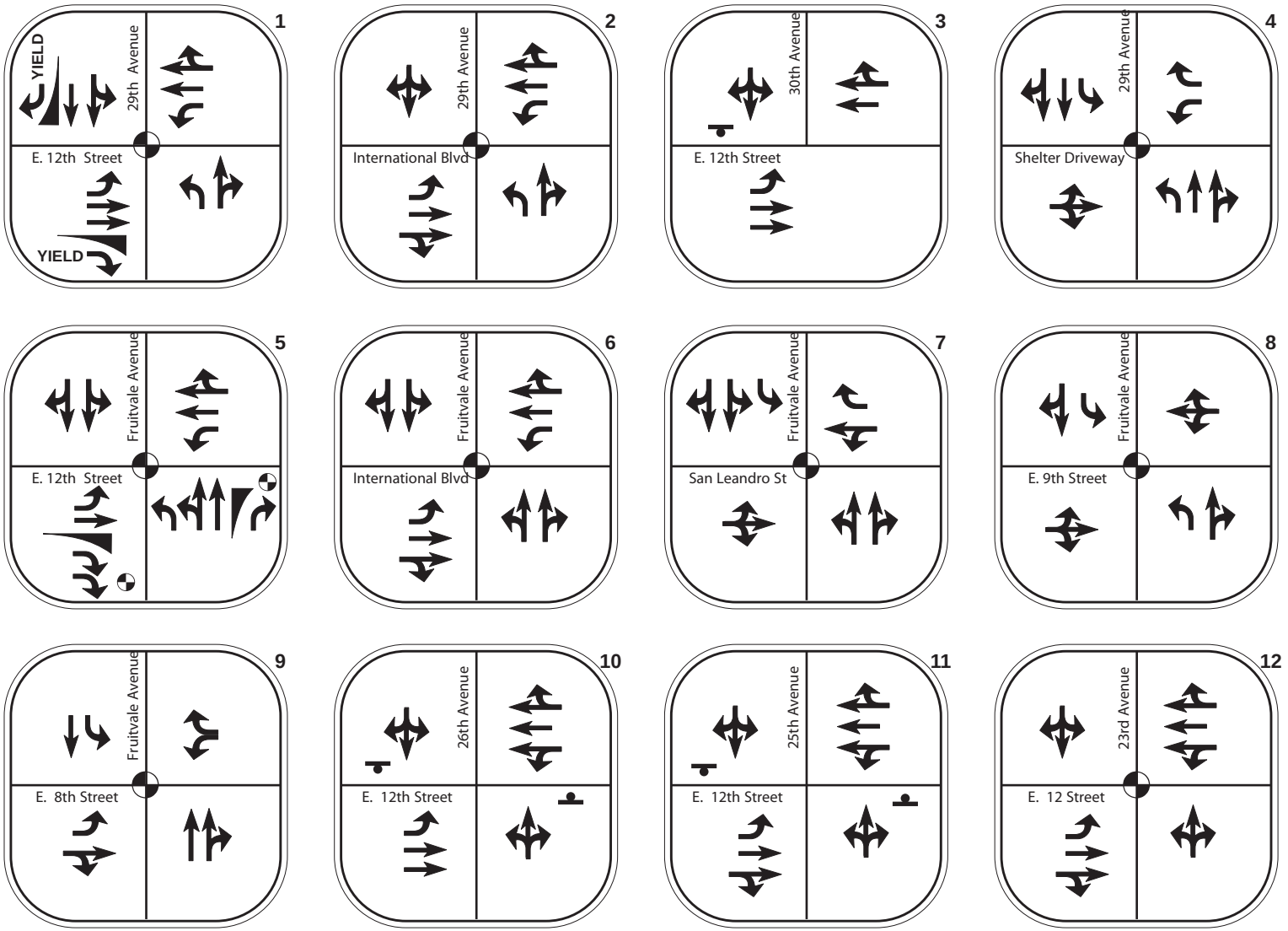
Figure IV.C-1
Study Area

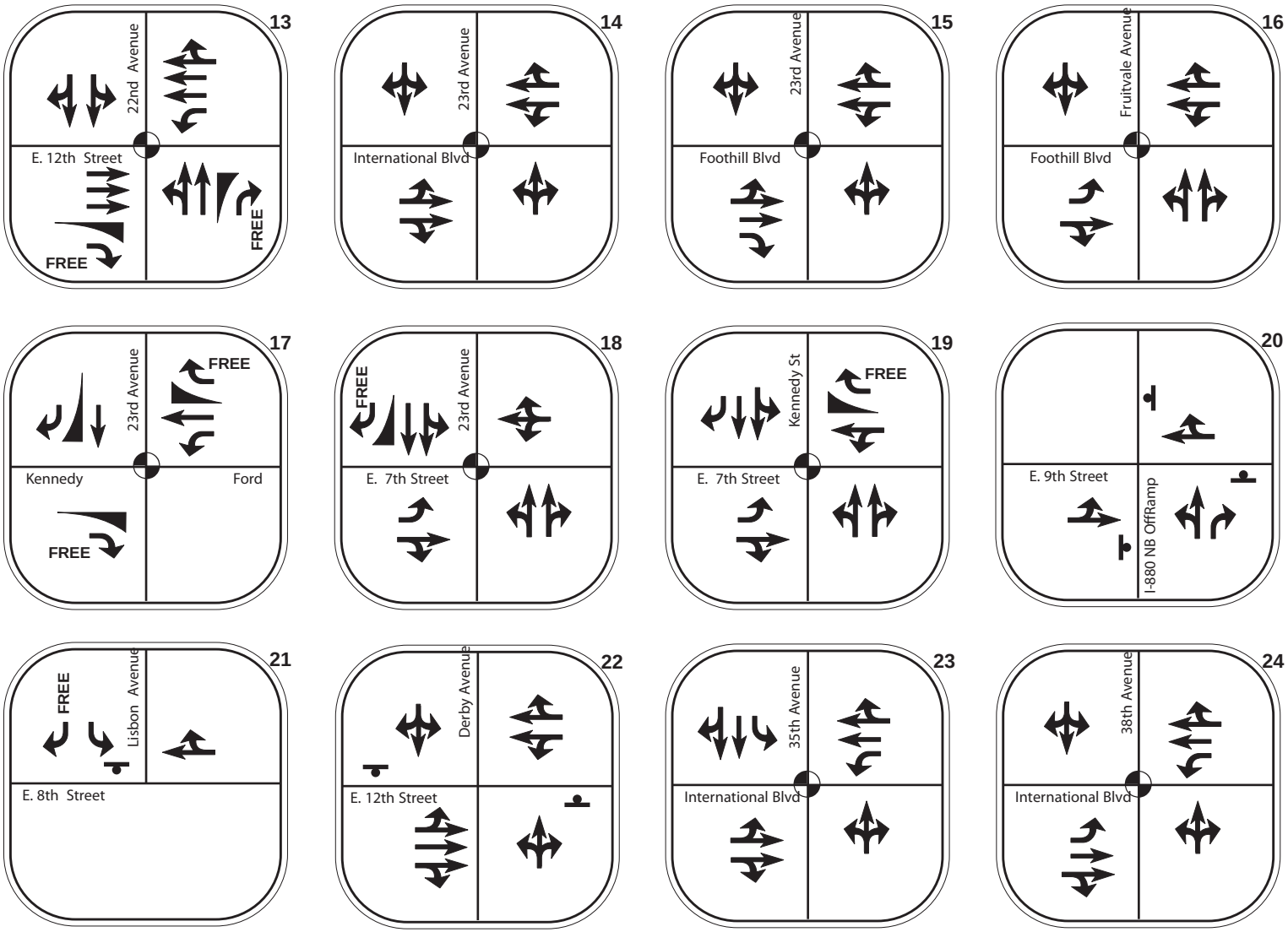


SOURCE: Korve Engineering, 2007

Fruitvale Gateway . 204358

Figure IV.C-2a

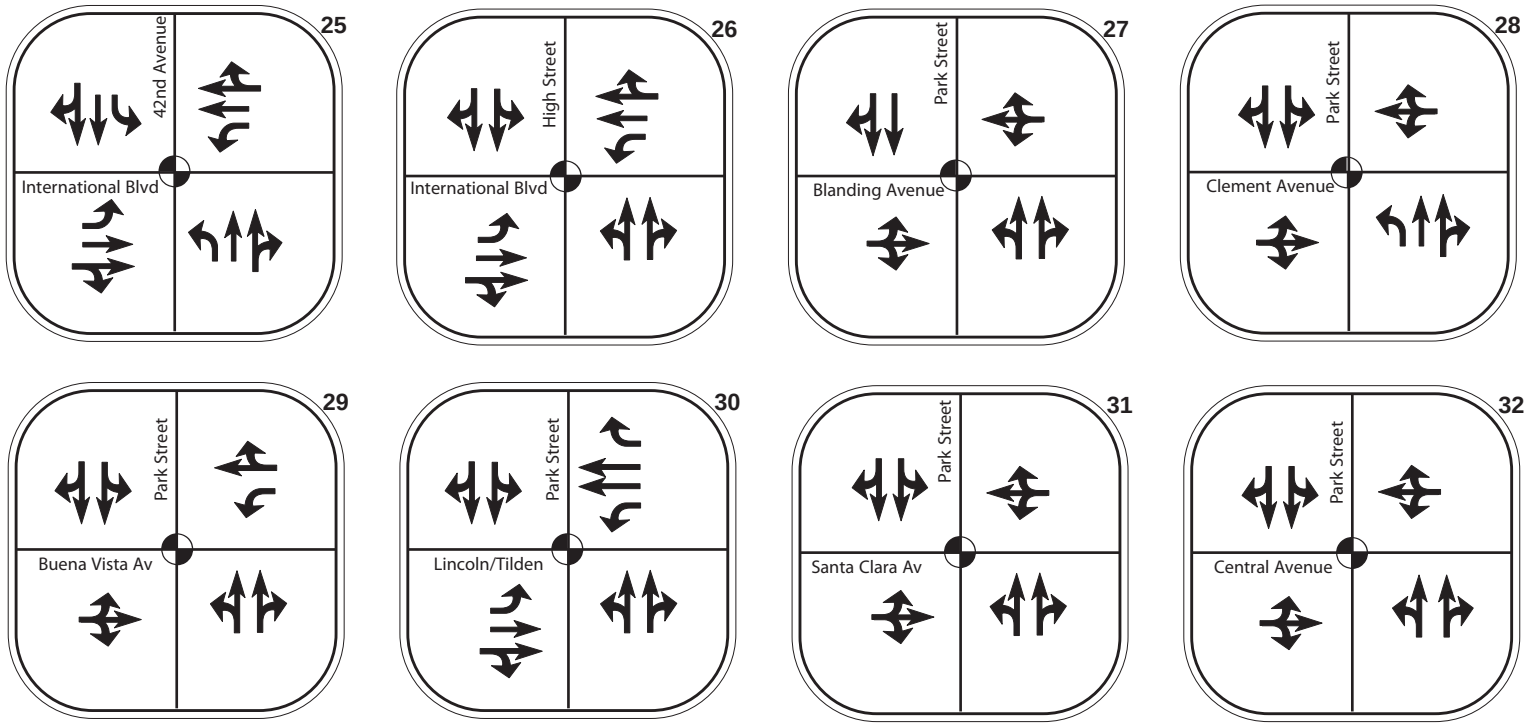
Existing (Baseline) Intersection Geometry and Traffic Control



SOURCE: Korve Engineering, 2007

Fruitvale Gateway . 204358

Figure IV.C-2b
Existing (Baseline) Intersection Geometry
and Traffic Control

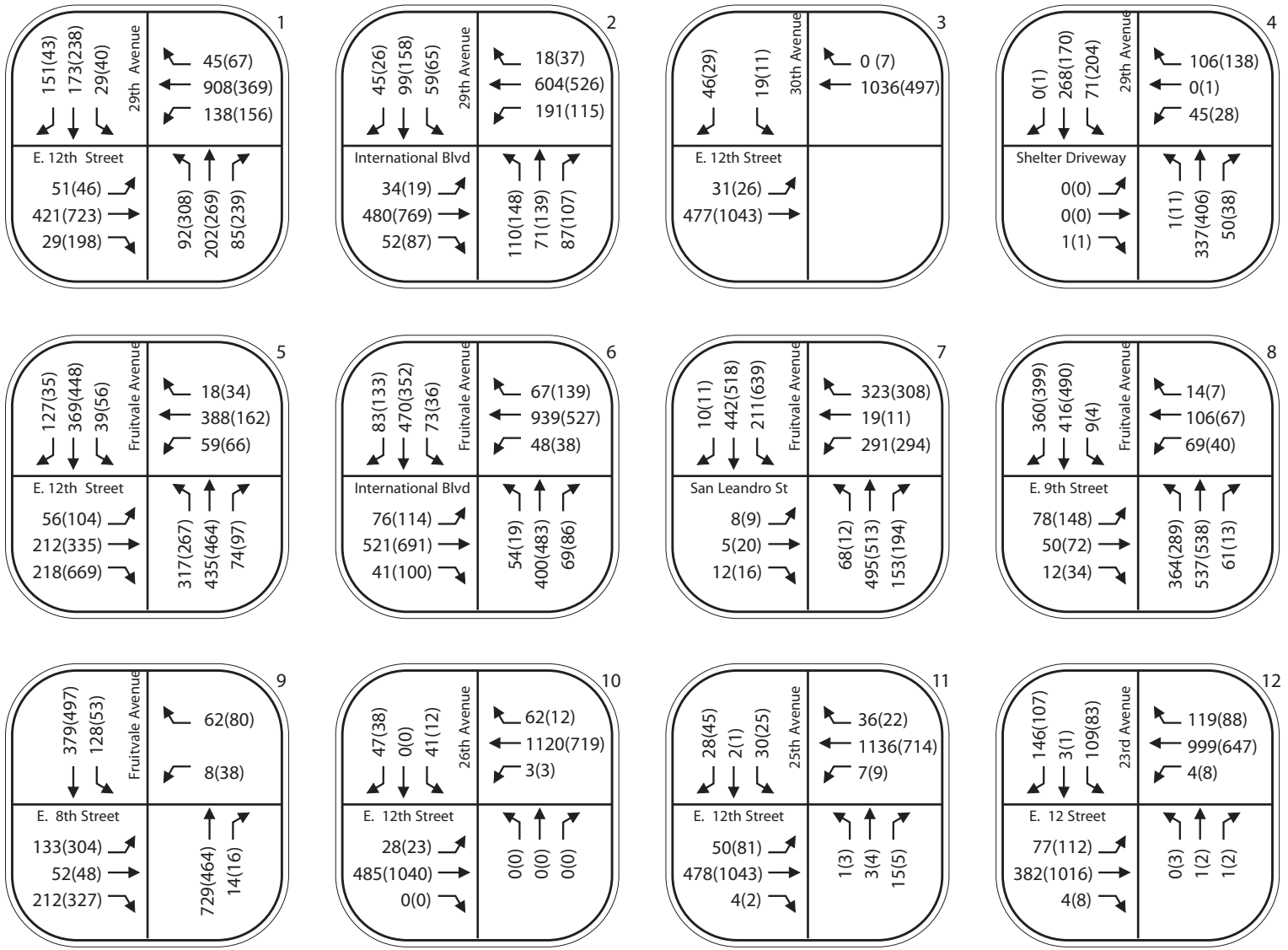


Traffic Signal Stop Sign

SOURCE: Korve Engineering, 2007

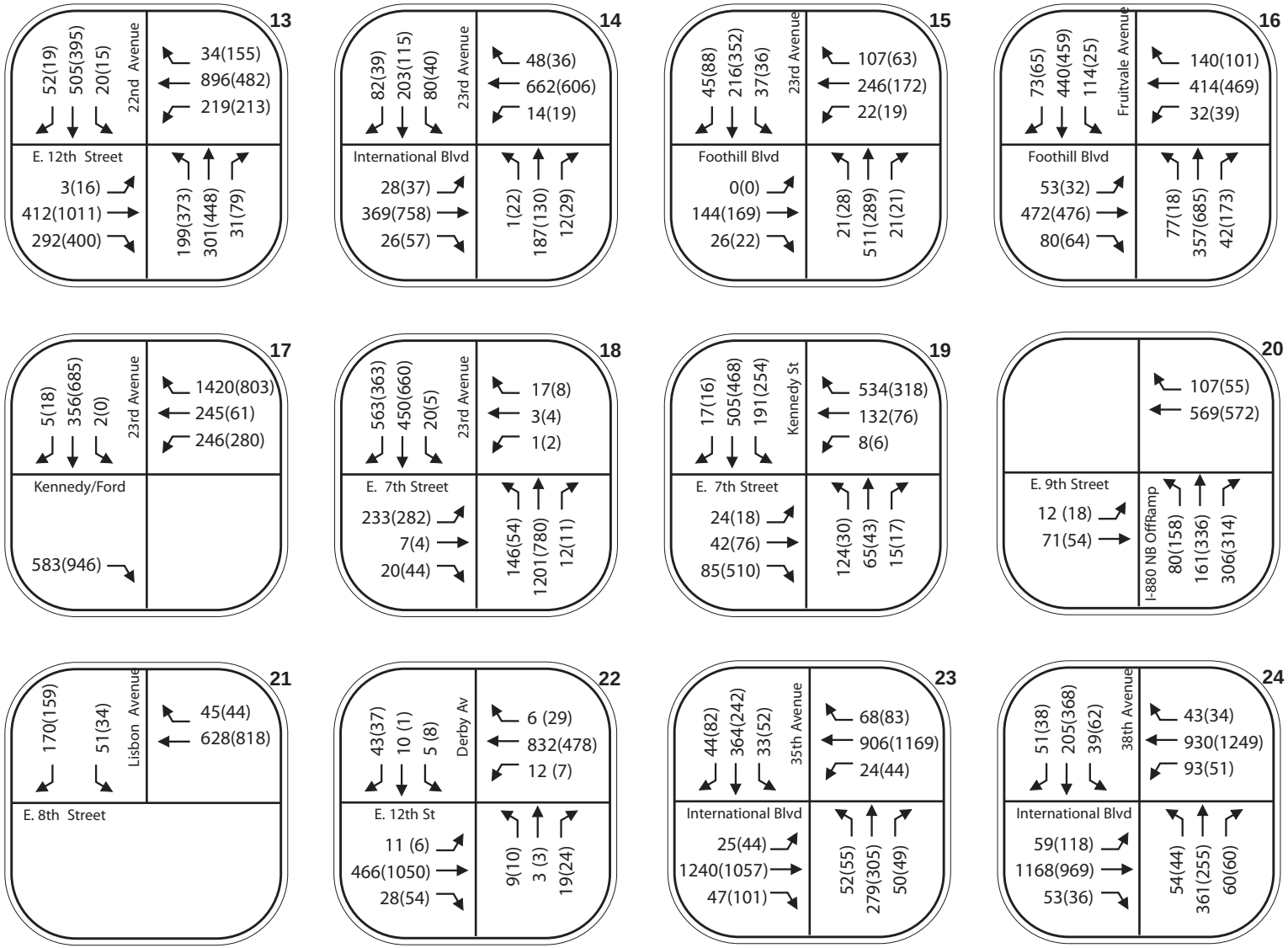
Fruitvale Gateway . 204358

Figure IV.C-2c
Existing (Baseline) Intersection Geometry and Traffic Control



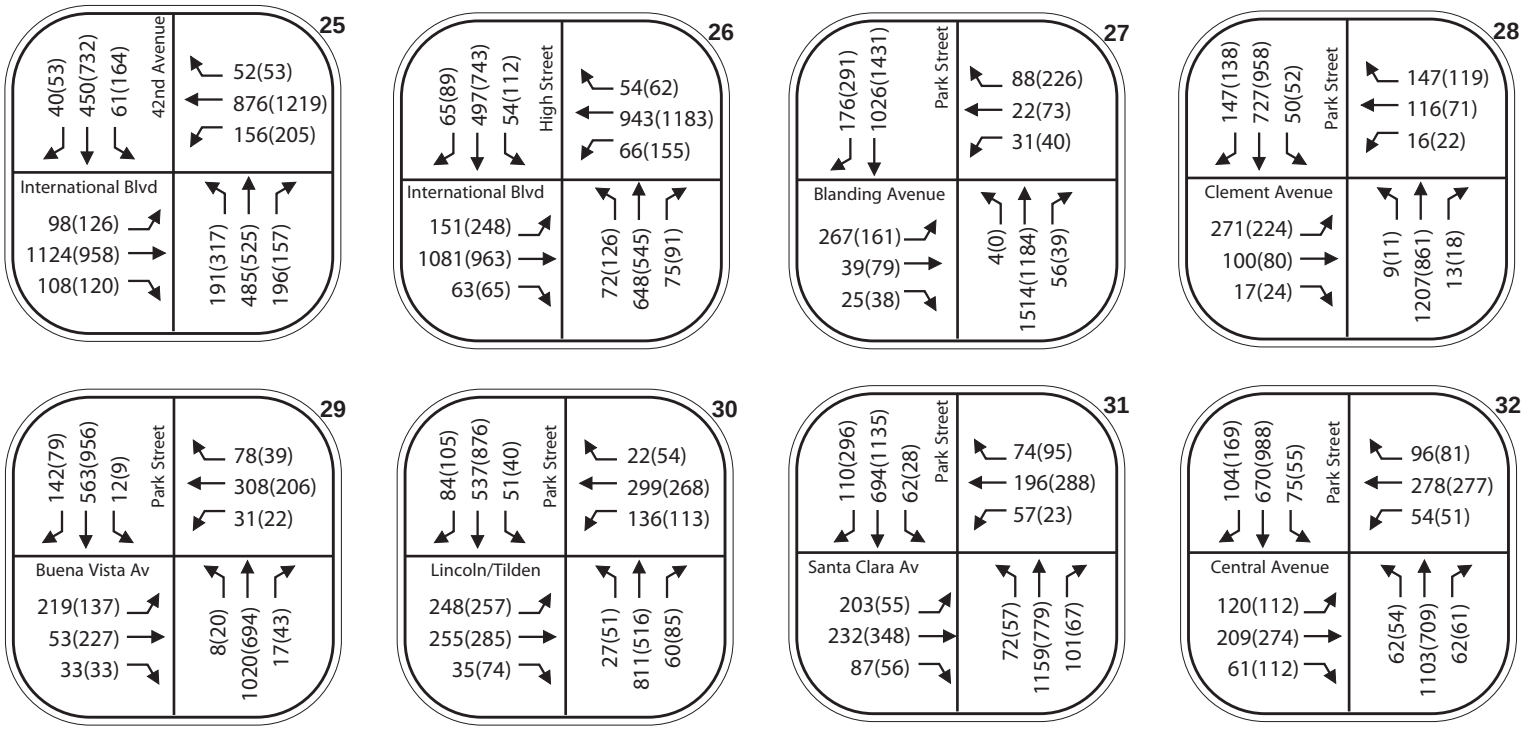
SOURCE: Korve Engineering, 2007

Figure IV.C-3a
Existing (Baseline) Traffic Volumes



SOURCE: Korve Engineering, 2007

Figure IV.C-3b
Existing (Baseline) Traffic Volumes



SOURCE: Korve Engineering, 2007

Figure IV.C-3c
Existing (Baseline) Traffic Volumes

TABLE IV.C-3
BASELINE PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

			AM Peak		PM Peak	
No.	**Intersection**	**Traffic Control[a]**	**LOS**	**Delay[b]**	**LOS**	**Delay[b]**
1	East 12th / 29th Ave	Signal	B	18.0	B	18.5
2	International / 29th Ave	Signal	B	19.1	C	23.0
3	East 12th / 30th Ave	TWSC	C	19.2	B	12.2
4	Animal Shelter / 29th Ave	Signal	B	13.0	B	13.2
5	East 12th / Fruitvale Ave	Signal	C	26.0	C	29.0
6	International / Fruitvale Ave	Signal	C	21.1	B	19.8
7	San Leandro / Fruitvale Ave	Signal	C	26.8	C	24.9
8	**East 9th / Fruitvale Ave**	**Signal**	D	40.2	**E**	**56.4**
9	East 8th / Fruitvale Ave	Signal	B	12.5	C	21.0
10	East 12th / 26th Ave	TWSC	C	20.6	B	11.8
11	**East 12th / 25th Ave**	**TWSC**	**F**	**>80.0**	**F**	**54.1**
12	East 12th / 23rd Ave	Signal	C	21.4	B	19.3
13	East 12th / 22nd Ave	Signal	B	15.7	D	39.3
14	International / 23rd Ave	Signal	B	11.8	A	7.2
15	Foothill / 23rd Ave	Signal	B	10.8	B	10.8
16	**Foothill / Fruitvale Ave**	**Signal**	**E**	**79.0**	**E**	**69.0**
17	Kennedy / 23rd Ave	Signal	B	13.2	B	19.4
18	East 7th / 23rd Ave	Signal	B	17.4	B	10.5
19	East 7th / Kennedy St	Signal	A	9.8	C	31.3
20	**East 9th / I-880 NB Off-Ramp**	**AWSC**	**F**	**54.4**	**F**	**57.4**
21	East 8th / Lisbon Ave	TWSC	C	15.4	C	17.5
22	East 12th / Derby Ave	TWSC	C	17.8	C	23.9
23	International / 35th Ave	Signal	B	12.4	B	12.3
24	International / 38th Ave	Signal	C	24.5	C	33.4
25	**International / 42nd Ave**	**Signal**	C	33.4	**F**	**>80.0**
26	International / High St	Signal	C	20.6	D	51.4
27	Blanding / Park St	Signal	B	18.2	B	19.0
28	Clement / Park St	Signal	D	41.9	B	18.2
29	Buena Vista / Park St	Signal	D	35.7	B	12.0
30	Lincoln / Park St	Signal	B	12.0	B	13.7
31	Santa Clara / Park St	Signal	C	29.7	B	16.9
32	Central / Park St	Signal	B	15.9	B	18.3

Bolded, shaded intersections indicate unacceptable operating conditions.

[a] TWSC = Two-way stop controlled intersection; AWSC = All-way stop controlled intersection

[b] The LOS and delay for two-way stop controlled intersections represent the worst movement or approach. The LOS and delay for signalized intersections and all-way stop controlled intersections represent the overall intersection.

SOURCE: Korve Engineering (2007)

Baseline Freeway Traffic Operating Conditions

Table IV.C-4 summarizes the baseline level of service on key freeway segments near the project site, based on both the density and volume-to-capacity ratio methodologies. In some cases, a somewhat different LOS is calculated based on the two different analysis methodologies. Under the volume-to-capacity ratio methodology, I-880 operates at LOS E west of 23rd Street in the westbound direction during the a.m. peak hour. During the p.m. peak hour, I-880 operates at LOS E west of 23rd Street in both directions, and east of 29th Street in the westbound direction. Under the Density methodology, all segments of I-880 near the project operate at LOS D.

TABLE IV.C-4
BASELINE FREEWAY LEVEL OF SERVICE (LOS)

			Volume-to-Capacity Method[a]			Density Method[a]	
Freeway	**Direction**	**Peak Hour**	**(Vehicles/lane)**	**V/C[b]**	**LOS**	**(pc/mi/ln)[c]**	**LOS**
Interstate 880							
West of 23rd Street	Westbound	AM	1,820	0.91	E	29.9	D
		PM	1,911	0.96	E	32.4	D
	Eastbound	AM	1,788	0.89	D	29.2	D
		PM	1,828	0.91	E	30.1	D
East of 29th Avenue	Westbound	AM	1,778	0.89	D	28.9	D
		PM	1,868	0.93	E	31.2	D
	Eastbound	AM	1,747	0.87	D	28.2	D
		PM	1,787	0.89	D	29.1	D

[a] Caltrans requires the use of the "density" calculation while the City of Oakland requires the "volume to capacity ratio" methodology. Project impacts are assessed based on the "volume to capacity" ratio methodology.

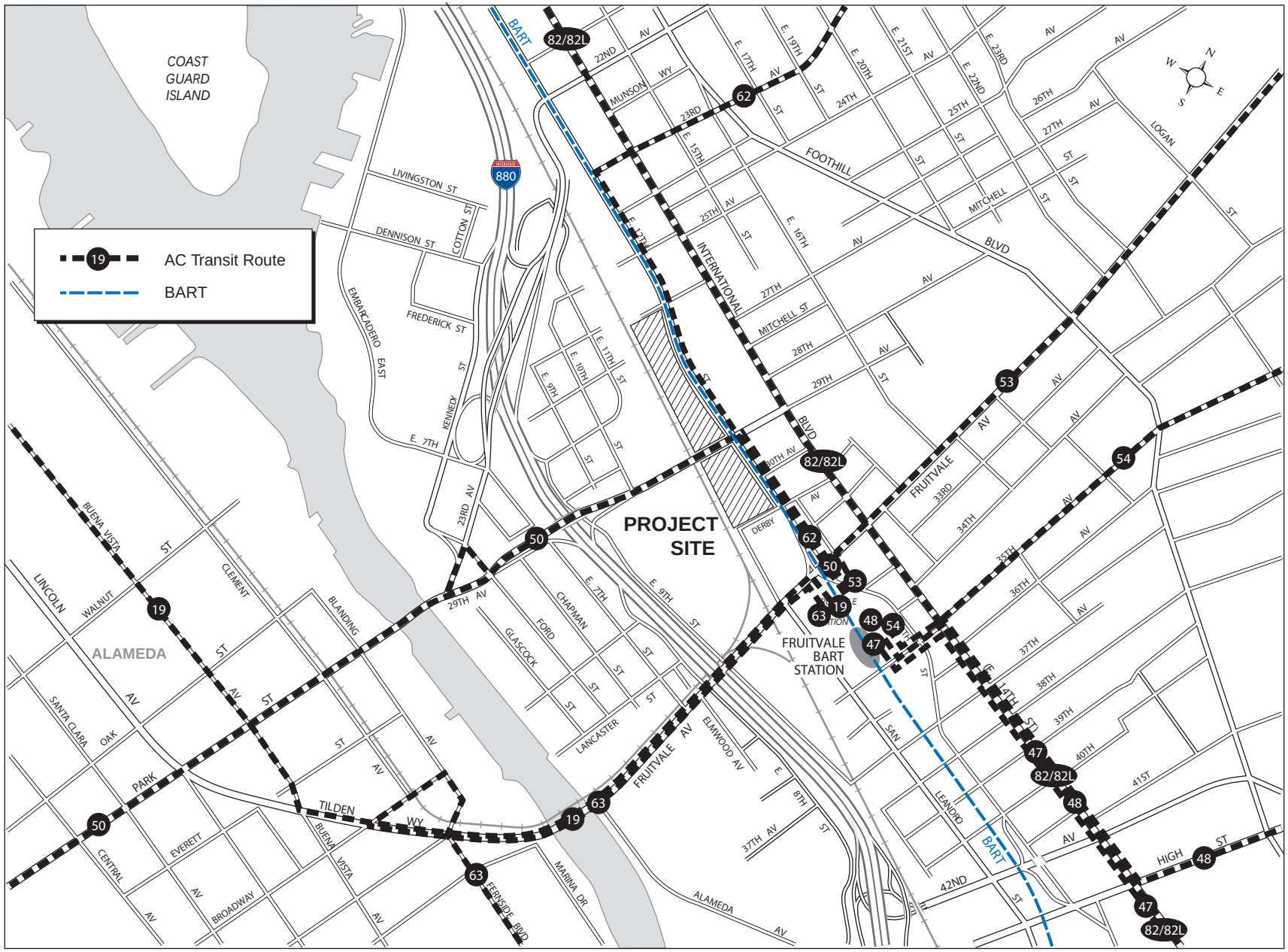
[b] Roadway capacities assumed to be 2,000 vehicles per hour per lane for freeways.

[c] Passenger car equivalents per mile per lane.

SOURCE: Korve Engineering (2007); Caltrans Traffic Operations – Traffic and Vehicle Data Systems, Traffic Volumes, Annual Average Daily Traffic (2005)

Transit Services

Existing transit service near the project site includes bus service provided by the Alameda-Contra Costa Counties Transit District (AC Transit) and rail service provided by Bay Area Rapid Transit (BART). Each of these services is described below, and shown in **Figure IV.C-4**.



SOURCE: Korve Engineering, 2007

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Figure IV.C-4
Existing Transit Network

AC Transit

Several AC Transit bus routes operate on major north-south and east-west corridors and serve the project site. **Table IV.C-5** summarizes the bus routes and service schedules for the AC Transit lines located within walking distance from the project site. Route 62 is an east-west bus line running along East 12th Street, on the northern edge of the project site. Route 50 is a north-south bus line that transports riders from Alameda to the Oakland, and operates on 29th Avenue. The 82/82L route is an east-west line that runs along International Boulevard, which is one block from the project site. Routes 19 and 63 run from Alameda to Oakland along Fruitvale Avenue to the Fruitvale BART Station, which is two blocks from the project site. Routes 47, 48, 53, and 54 are north-south bus lines that include a stop at the Fruitvale BART Station. The majority of the buses have headways of every 10 to 30 minutes during the peak periods.

Information on maximum load points was obtained from various sources compiled by the AC Transit Long Range Planning and Data Analysis Department. Routes 19, 47, 48, 50, 53, 54, 62, and 63 all have fairly low maximum loads, ranging between four percent and 58 percent of seated capacity. Route 82/82L has a high maximum load, ranging between 113 percent and 149 percent of seated capacity at various bus stops. In the project vicinity the maximum load factor on Route 82/82L is approximately 103 percent.

TABLE IV.C-5
BUS SERVICE SUMMARY FOR PROJECT AREA

Route	Time of Service	Peak Hour Headways	Service	Max Load Factor (Near Project Site)
19	6am – 10pm	30 min	Fruitvale BART to North Berkeley BART via downtown	13%
47	6am – 7pm (M-F only)	30 min	Fruitvale BART to Mills College	17%
48	6am – 7pm	30 min	Fruitvale BART to Macarthur Blvd via High Street	24%
50	24-Hour Service	15–30 min	Fruitvale BART through Oakland Airport to Bay Fair BART	31%
53	6am – 12am	15 min	Fruitvale BART to Macarthur Blvd via Fruitvale Avenue	33%
54	24-Hour Service	10–15 min	Fruitvale BART to Macarthur Boulevard to Merritt College	27%
62	6am – midnight	20–30 min	Fruitvale BART to West Oakland BART	27%
63	6am – midnight	30 min	Fruitvale BART to Alameda	20%
82	24-Hour Service	10–15 min	Downtown Oakland to Hayward BART	103%
82L[a]	7am – 7pm	10–15 min	Downtown Oakland to Hayward BART	103%

[a] Limited stops

SOURCE: AC Transit, Route and Bus Schedules, Effective April 3, 2005; AC Transit Long Range Planning and Data Analysis Department

In the vicinity of the proposed project site, AC transit bus stops are located on East 12th Street at 26th Avenue (Route 62), on East 12th Street at 29th Avenue (Route 62), on International Boulevard at 29th Avenue (Route 82/82L), and at the Fruitvale BART Station (Routes 19, 47, 48, 50, 53, 54, 62, and 63).

BART

BART is an automated rapid transit system serving Alameda County, Contra Costa County, San Francisco County, and northern San Mateo County. The Fruitvale BART Station is the closest station to the project site (about a quarter mile away), with three of the five BART lines serving that station (i.e., the Richmond-Fremont; Daly City-Fremont; and Daly City-Dublin/Pleasanton).

Weekday entry and exit data, from April 2005, was obtained from BART.[6] At the Fruitvale Station, there were approximately 6,100 riders entering and 6,070 riders exiting the station on an average weekday. Fremont-Daly City trains have the most riders leaving the Fruitvale Station in the a.m. peak hour, with an average of 88 and a maximum of 102 riders boarding per train. Daly City-Dublin/Pleasanton trains have the most riders arriving at the Fruitvale Station in the p.m. peak hour, with an average of 75 and a maximum of 114 exiting riders per train.

Parking

There is currently parallel on-street parking along both sides of East 12th Street in the vicinity of the proposed project site. The segment of 29th Avenue south of East 12th Street and north of the railroad tracks does not have on-street parking. The segment of 29th Street north of East 12th Street has on-street parking on both sides of the street. Parking occupancy data was collected on June 6, 2005, in the afternoon, when occupancies were observed to peak. The parking occupancy at these locations was observed to be approximately 60 percent.

Pedestrian and Bicycle Facilities

Sidewalks are provided on all streets in the vicinity of the proposed project site except at the at-grade railroad crossing on 29th Avenue, just south of the proposed project site. The gated railroad crossing has broken asphalt which can be an obstacle for pedestrians, particularly school children. Crosswalks are provided on all four legs of the East 12th Street and 29th Avenue intersection. There are pedestrian islands in the southwest and northwest corners of the intersection.

According to the City of Oakland's *Pedestrian Master Plan*, 29th Avenue, International Boulevard and Foothill Avenue are City Pedestrian Routes. East 12th Street is a District Pedestrian Route in the vicinity of the proposed project site (Oakland, 2002).[7]

Three schools are located in the vicinity of the project site. Lazear Elementary School is a kindergarten through 6th grade school located on 29th Avenue, south of the proposed project site. The Cesar Chavez Elementary School is located on the northwest corner of the intersection of

6 Entry/exit BART data was obtained on July 15, 2005 from Val Joseph Menotti, Deputy Planning Manager.
7 City Pedestrian Routes provide the most direct connections between walking and transit, and connect multiple districts in the City. District Pedestrian Routes are located within a single district and generally have a more local function, such as the location of schools, community centers, and smaller scale shopping.

East 12th Street and 29th Avenue. The ASCEND School is a kindergarten through 8th grade school located on East 12th Street east of the Fruitvale BART Station.

Figure IV.C-5 illustrates the existing and proposed bicycle facilities near the project site that are in the City of Oakland's *Bicycle Master Plan*.[8] Currently, there is a Class 2 bike lane along Fruitvale Avenue that begins at East 12th Street going south, becomes a Class 1 bike path along Tilden Way, and finishes off as a Class 2 bike lane from Broadway to Park Street.

Planned Transportation Improvements

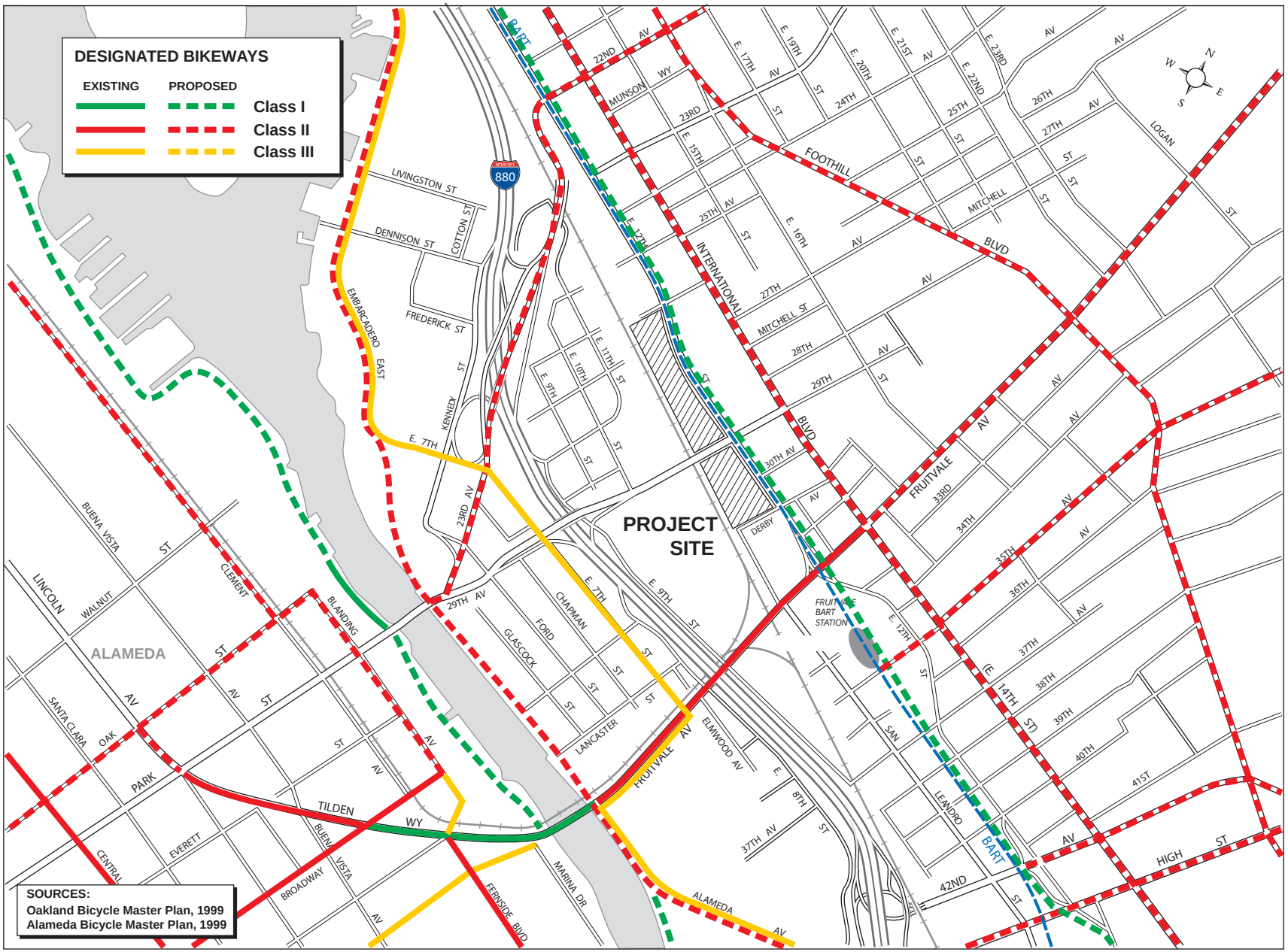
International Boulevard Bus Rapid Transit

In May of 2007, AC Transit published a Draft Environmental Impact Statement / Environmental Impact Report (EIS/EIR) for the implementation of an International Boulevard Bus Rapid Transit (BRT). The proposed transit system expansion which would allow buses to offer riders a rail-like transit experience that operates more quickly and reliably than regular bus service today, and would connect the cities of Berkeley, Oakland and San Leandro. The proposed BRT project would generally eliminate one through lane in each direction and narrow International Boulevard to one through lane in each direction. Although there are no finalized design plans, an assurance of full funding for the BRT project, or approvals from AC Transit, the City of Oakland and other public agencies, and although proposed (but not approved) transit improvements are not typically considered as part of the projected baseline conditions, this EIR nevertheless (conservatively) provides a non-CEQA discussion of the potential effects on project impacts caused by proposed modifications to the traffic circulation network by the proposed International Boulevard BRT in **Appendix C** to this EIR.

I-880 Northbound Safety Project

The Alameda County Congestion Management Agency (ACCMA) is developing a project to implement safety improvements to I-880 northbound (westbound in the vicinity of the project area) at the 29th Avenue on- and off-ramps. The work includes improving the freeway on- and off-ramp geometrics, the modification of existing local streets, landscape enhancement, and construction of a soundwall. This project would make the vehicular access to and from the Gateway Community Development project site safer. Although the precise configuration of this project is not known, it is likely that its completion should enhance the safety and efficiency of pedestrian and vehicular circulation in the area of the I-880 ramps at 29th Avenue. Since the precise configuration of this project is not known, this analysis does not assume its completion in future scenarios.

8 A Class 1 bicycle facility (bicycle path) is completely segregated from vehicle traffic and tends to be a recreational facility. A Class 2 bicycle facility (bicycle lane) is an on-street facility established on roadways with high bicycle demand, is a minimum of 1.5 meters in width, and is delineated by a six inch stripe on the left-hand side of the lane, an optional four inch stripe on the right side of the lane, and in-pavement markings such as the symbol of a cyclist with a helmet. A Class 3 bicycle facility (bicycle route) is a denoted by route signs and is installed on streets that are recommended for cycling but do not require bike lane striping due to the low-volume of vehicle traffic flow.



SOURCE: Korve Engineering, 2007

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Figure IV.C-5

Existing and Proposed Bicycle Facilities

Bicycle/Pedestrian Improvements

The City of Oakland *Draft Bicycle Master Plan Update*, released in March of 2007, recommends several improvements to the bicycle and pedestrian facilities within a half-mile of the project study area, including:

- Adding Class 1 bike path along the southern edge of the Fruitvale BART Station;
- Adding Class 2 bike lanes along East 12th Street west of Fruitvale Avenue;
- Adding Class 2 bike lanes along Fruitvale Avenue north of East 12th Street*;
- Adding Class 2 bike lanes along Foothill Avenue throughout the project area*;
- Adding Class 2 bike lanes along 22nd Avenue throughout the project area*;
- Adding Class 2 bike lanes along 23rd Avenue between East 12th Street and Ford Street;
- Adding Class 2 bike lanes along 29th Avenue between East 7th Street and 23rd Avenue;
- Adding Class 3A arterial bike route along East 12th Street east of Fruitvale Avenue; and
- Adding Class 3B bike boulevard along East 7th Street between Fruitvale Avenue and 23rd Avenue.

  (* Improvement also included in the existing *Oakland Draft Bicycle Master Plan*, adopted 1999.)

These improvements are not fully funded at this time and are not assumed to be in place for this analysis.

Project Impacts and Mitigation Measures

Approach to Analysis

This transportation analysis was conducted for typical weekday a.m. and p.m. peak commute hour conditions at local intersections and on the regional roadway facilities. Those time periods are the most relevant for this analysis because traffic volumes are generally the highest in Oakland during those periods, and therefore, traffic and circulation conditions during the weekday morning and evening commute hours are considered the most critical to evaluate in determining potentially significant impacts. In addition, standard traffic analytical tools focus on the weekday peak hours.

Traffic impacts are assessed at the 32 study intersections in the study area for the following scenarios:

- Baseline Conditions;
- Baseline plus Project Conditions;
- Near-Term (2010) Baseline Conditions;
- Near-Term (2010) plus Project Conditions;
- Cumulative (2025) Baseline Conditions; and
- Cumulative (2025) plus Project Conditions.

"Baseline Conditions" refers to the environmental baseline against which the project's effects are measured. The environmental baseline period for parts of the traffic analysis was established when Korve Engineering conducted traffic counts along local roadways in August and November

2004 to establish the baseline traffic conditions in the project area.[9] (As indicated previously under *Regional Access*, 2005 data used to establish the baseline condition for traffic on I-880.) During the subsequent 12 to 15 months (August 2004 to November 2005), the project sponsor worked to refine the proposed project and the City conducted its preliminary review of the project in preparation for NOP publication, which occurred in November 2005. No development or roadway changes occurred in the study area between August/November 2004 and November 2005 that would have substantially changed baseline conditions.

The "Near-Term 2010 Baseline Conditions" and "Cumulative 2025 Baseline Conditions" are defined as future scenarios which incorporate traffic increases associated with all approved and planned development (with the exception of the proposed project) that would affect the study area. Intersection traffic volumes for the 2010 Baseline Conditions were derived through the use of the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model (released September of 2006), with land uses within Oakland modified by the Hausrath Economic Group to reflect the City's updated Cumulative Growth Scenario for 2010. Intersection traffic volumes for Cumulative (2025) Conditions are derived using ACCMA's Countywide Transportation Demand model with land uses reflecting the City's updated growth scenario for 2025.

For each "plus Project" scenario, the proposed project, in its entirety, is layered on top of each of the "Baseline" scenarios to create the "Baseline plus Project," "2010 Baseline plus Project," and "2025 Baseline plus Project" conditions. Although the project would not be fully built by the year 2010, the entire project is analyzed for both the "Baseline plus Project" and "2010 plus Project" Conditions to provide a conservative evaluation of project impacts (i.e., impacts shown as occurring sooner than actually may occur).Significance Criteria

Intersection Peak-Hour Level of Service – City of Oakland

The project would have a significant effect at the analysis intersections if it would cause an increase in traffic which is substantial in relation to the baseline traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads or congestion at intersections), or change the condition of an existing street (i.e., street closures, changing direction of travel) in a manner that would substantially affect access or traffic load and capacity of the street system. Specifically, the project would have a significant impact if it would:

1. Cause the baseline level of service (LOS) to degrade to worse than LOS E (i.e., LOS F) at a signalized intersection that is located within the Downtown area;
2. Cause the baseline LOS to degrade to worse than LOS D (i.e., LOS E or F) at a signalized intersection that is located outside the Downtown area;
3. Cause the total intersection average vehicle delay to increase by four or more seconds, or degrade to worse than LOS E (i.e., LOS F) at a signalized intersection outside the Downtown area where the baseline level of service is LOS E;

[9] Traffic counts were conducted during non-holiday periods.

4. Cause an increase in the average delay for any of the critical movements of six seconds or more, or degrade to worse than LOS E (i.e., LOS F) at a signalized intersection for all areas where the baseline level of service is LOS E;
5. At a signalized intersection for all areas where the baseline level of service is LOS F, cause:
   (a) The total intersection average vehicle delay to increase by two or more seconds,
   (b) An increase in average delay for any of the critical movements of four seconds or more, or
   (c) An increase in the volume-to-capacity ("V/C") ratio that exceeds three percent (but only if the delay values cannot be measured accurately);
6. At an unsignalized intersection for all areas, the project would add ten (10) or more vehicles and after project completion satisfy the *Manual on Uniform Traffic Control Devices* (MUTCD) peak hour volume warrant; and
7. Make a considerable contribution to cumulative impacts at a signalized or unsignalized intersection where the future level of service is LOS E or F, where the project exceeds any of the previous thresholds, and when the project contributes five percent or more of the cumulative traffic increase as measured by the difference between Existing and Cumulative (with project) Conditions.

"Downtown" is defined in the *Land Use Transportation Element (LUTE)* of the General Plan (page 67) as the area generally bound by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland estuary to the south and I-980/Brush Street to the west. None of the study intersections lie within the Downtown area. Thus, thresholds relating to Downtown will not be addressed further in this document.

Intersection Peak-Hour Level of Service – City of Alameda

The project would have a significant effect at the analysis intersections if it would cause an increase in traffic which is substantial in relation to the baseline traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads or congestion at intersections), or change the condition of an existing street (i.e., street closures, changing direction of travel) in a manner that would substantially affect access or traffic load and capacity of the street system. Specifically, the project would have a significant impact if it:

- Causes the LOS of a signalized intersection that is projected to operate at LOS D or better in the baseline scenario to degrade to LOS E or F;
- Causes the total intersection average vehicle delay at any signalized intersection that is projected to operate at LOS E or F in the baseline scenario to increase by four or more seconds;
- Causes any approach to an unsignalized intersection that is projected to operate at LOS D or better in the baseline scenario to degrade to LOS E or F for any movement; and
- Causes traffic volumes to increase by one percent at an unsignalized intersection that is projected to operate at LOS E or F in the baseline scenario.

Roadway Segments

8. The project would have a significant effect on regional roadways if it would cause a roadway segment on the Metropolitan Transportation System to operate at LOS F or increase the V/C ratio by more than three percent for a roadway segment that would operate at LOS F without the project.

Transit

The project would have a significant effect on transit services if it would generate added transit ridership that would:

9. Increase the average ridership on AC Transit lines by three percent where the average load factor with the project in place would exceed 125 percent over a peak 30-minute period;
10. Increase the peak hour average ridership on BART by three percent where the passenger volume would exceed the standing capacity of BART trains;
11. Increase the peak hour average ridership at a BART Station by three percent where average waiting time at fare gates would exceed one minute.

Other Considerations

12. The project would have a significant effect if it would increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature (e.g., sharp curves or dangerous intersections) that does not comply with Caltrans design standards, or due to the introduction of incompatible uses.

13. The project would have a significant effect if it would fundamentally conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

The City of Oakland, in its review of the proposed project, wants to ensure minimal adverse effects to pedestrians. As such, pedestrian safety not related to design features of the project is evaluated in the EIR although it is not required under CEQA. Therefore, no mitigation measures will be required to mitigate any pedestrian safety issues unrelated to project design. Also, if there are any pedestrian-related significant effects, they would not require a statement of overriding considerations.

Construction Period

Potential short-term construction impacts generated by the proposed project would include the impacts associated with the delivery of construction materials and equipment, removal of construction debris, and parking for construction workers. Construction traffic levels would be significantly below project traffic levels.

Project Trip Generation

Modal Split

The proposed project is located within Census Tract 4061 in the City of Oakland. Census Tract 4061 is bound by International Boulevard to the north, the Oakland Inner Harbor to the south,

High Street to the east, and 23rd Avenue to the west. Many of the uses found within this census tract are not of a mixed-use nature. Thus, the Journey to Work data provided by the U.S. Census (2000) for this tract may not precisely depict the modal split to be expected for the proposed project. Consequently, census data from adjacent tracts (Census Tracts 4062.01, 4062.02, and 4072) were averaged to determine a more suitable modal split for the proposed project. Each adjacent tract borders Census Tract 4061 to the north along International Boulevard. The assumed modal split is shown in **Table IV.C-6**. An 18 percent reduction was applied to the project's trip generation to account for transit usage.

TABLE IV.C-6
MODAL SPLIT

	Mode (Values Shown in Number of People within Census Sample)			
Census Tract	**Autos**	**Transit**	**All Other**	**Total**
4061[a]	804	292	258	**1,354**
4062.01[b]	1,076	315	188	**1,579**
4062.02[c]	1,010	324	161	**1,495**
4072[d]	1,674	299	348	**2,321**
Combined				
Subtotal	*4,564*	*1,230*	*955*	***6,749***
Percentage	*68%*	*18%*	*14%*	***100%***

SOURCE: Korve Engineering (2007); US Census Bureau, Journey to Work: 2000.

The proposed project is considered by the City of Oakland to be a transit-oriented development (TOD) according to the *Land Use Transportation Element (LUTE)* of the General Plan, as well as the TOD characteristics outlined by the ACCMA.[10] Therefore, this analysis considered data gathered regarding area TODs as a measure of reasonableness of the trip reduction applied to the project's trips. In *Travel Characteristics of Transit-Oriented Development in California*, resident and worker travel behavior in TODs was surveyed (Hollie Lund, et al., 2004). All survey sites are located in non-Central Business District locations, and are within walking distance (approximately one quarter mile) of a transit station with rail service headways of fifteen minutes or less. Likewise, the ACCMA defines TODs as high density residential or mixed-use development located within one-third mile of a major transit station, designed to make transit use as attractive and convenient as possible. The sites surveyed in *Travel Characteristics of Transit-Oriented Development in California* in south Alameda County include developments near the Hayward, South Hayward, Union City, and Fremont BART Stations. Similarly to the sites studied in survey report, the Gateway Community Development project is located near the Fruitvale

10 ACCMA has adopted transportation and land use goals that characterize TODs as "residential or mixed-use development designed and located to make transit use as attractive and convenient as possible." The development concept of TODs is "housing and small, local-serving businesses co-located in a planned community that has been designed for convenient walk, bicycle, and transit access." TOD design attributes include "mixed-use development of moderately high density with continuous sidewalks and…within one-third mile of a transit station or trunkline bus route…." (ACCMA, 2007)

BART Station. The distance between the Fruitvale BART Station and the East 12th Street at 29th Avenue intersection is approximately 1,900 feet (one third of a mile), meaning that the western portion of the proposed project is over one quarter mile away from the Fruitvale BART Station, and most of the eastern portion of the proposed project is within one quarter mile of the Fruitvale BART Station.

The survey report determined that in south Alameda County the average reduction in work-related vehicle trips to account for transit usage at TODs was approximately 38 percent. For non-work trips, the average reduction to vehicle trips to account for transit usage at TODs was approximately 14 percent. Therefore, the 18 percent reduction applied to project trip generation in this EIR analysis is a conservative estimate.

Trip Generation

The number of vehicle trips that would be generated by the proposed project was estimated by applying trip generation rates taken from the Institute of Transportation Engineers' *Trip Generation* (ITE, 2003) to the project land uses. It should be noted that no credit is taken for trips generated by existing site uses – uses that would be eliminated by the project. The existing uses are primarily self-storage facilities, which generate a relatively low number of peak hour trips. Other trip-generating uses on the site include a small auto repair/maintenance shop, a hardware store, and a Caltrans maintenance facility. Thus, the project trip generation can be considered conservative. Also, a 5,000 square-foot educational center is included as part of the project description. While this use is not expected to generate substantial traffic, it is analyzed as part of the "commercial" uses to include a conservative estimate of project traffic generation. The proposed project's trip generation is shown in **Table IV.C-7**. The proposed project would generate 251 vehicle trips in the a.m. peak hour and 366 vehicle trips in the p.m. peak hour.

TABLE IV.C-7
PROJECT WEEKDAY TRIP GENERATION

			AM Peak Hour			PM Peak Hour		
Land Use	**Size**	**Daily Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Condominiums/Townhouses (units) [a]	810	3,799	47	228	275	224	110	334
Modal Split Reduction (18%)[b]	----	(692)	(9)	(41)	(50)	(41)	(20)	(61)
Subtotal	----	*3,107*	*38*	*187*	*225*	*183*	*90*	*273*
Commercial (1,000 sq. ft.)[c]	30	1,330	16	10	26	41	52	93
Total (Vehicle Trips)	----	**4,437**	**54**	**197**	**251**	**224**	**142**	**366**

a For the Residential Condominium/Townhouse Land Use (230), the fitted curve equation was used to determine the trip generation.
b Based on an average of 2000 Census Journey to Work data for census tracts in the vicinity of the project site, residential trips are reduced by 18 percent to account for transit usage.
c Commercial trip generation was determined using the fitted curve equation for the Specialty Retail Land Use (814). It should be noted that a.m. peak hour trip generation rates are not available for the Specialty Retail Center land use. Consequently, a.m. peak hour rates for Specialty Retail were derived by adjusting Shopping Center Land Use (820) a.m. peak hour rates to fit the Specialty Retail Center use. The 30,000 square feet of commercial land use encompasses trips generated by the approximately 25,950 square feet of commercial land use and trips generated by the 5,000 square-foot community educational facility, as described in the Project Description in Chapter III.

SOURCE: Korve Engineering (2007), ITE (2003)

Project Trip Distribution and Trip Assignment

Vehicle trips generated by the proposed project were assigned to the surrounding transportation network on the basis of a distribution pattern developed based on information from the ACCMA Model, updated to reflect the cumulative land use forecasts of the City of Oakland.

The trip distribution pattern for residential project trips is illustrated in **Figure IV.C-6a**. Approximately 31 percent of residential project traffic would arrive from and depart towards I-880 west of 29th Avenue and 30 percent to and from I-880 east of 29th Avenue. Approximately nine percent of residential project traffic would arrive from and depart to Alameda via 29th Avenue. Approximately two percent of residential project traffic would arrive from and depart to Alameda via Fruitvale Avenue. Three percent of residential project traffic would arrive and depart to the west: two percent via East 12th Street and one percent via International Boulevard. Twelve percent of residential project traffic would arrive and depart to the east: two percent via San Leandro Street and ten percent via International Boulevard. Nine percent of residential project traffic would arrive and depart to the north via Fruitvale Avenue. Four percent of residential traffic would arrive from and depart to the north via East 23rd Street, East 22nd Street, East16th Street, and other parallel local streets.

The trip distribution pattern for commercial project trips is illustrated in **Figure IV.C-6b**. Approximately 31 percent of commercial project traffic would arrive from and depart towards I-880 west of 29th Avenue and 13 percent to and from I-880 east of 29th Avenue. Approximately 23 percent of commercial project traffic would arrive from and depart to Alameda via 29th Avenue. Approximately five percent of commercial project traffic would arrive from and depart to Alameda via Fruitvale Avenue. Twelve percent of commercial project traffic would arrive and depart to the west: seven percent via East 12th Street and five percent via International Boulevard. Nine percent of commercial project traffic would arrive and depart to the east: two percent via San Leandro Street and seven percent via International Boulevard. Four percent of commercial project traffic would arrive and depart to the north via Fruitvale Avenue. Four percent of commercial traffic would arrive from and depart to the north via East 23rd Street, East 22nd Street, East 16th Street, and other parallel local streets.

Figures IV.C-7a through **IV.C-7c** illustrate the project traffic volumes. **Figures IV.C-8a** through **IV.C-8c** illustrate the Baseline plus Project traffic volumes.

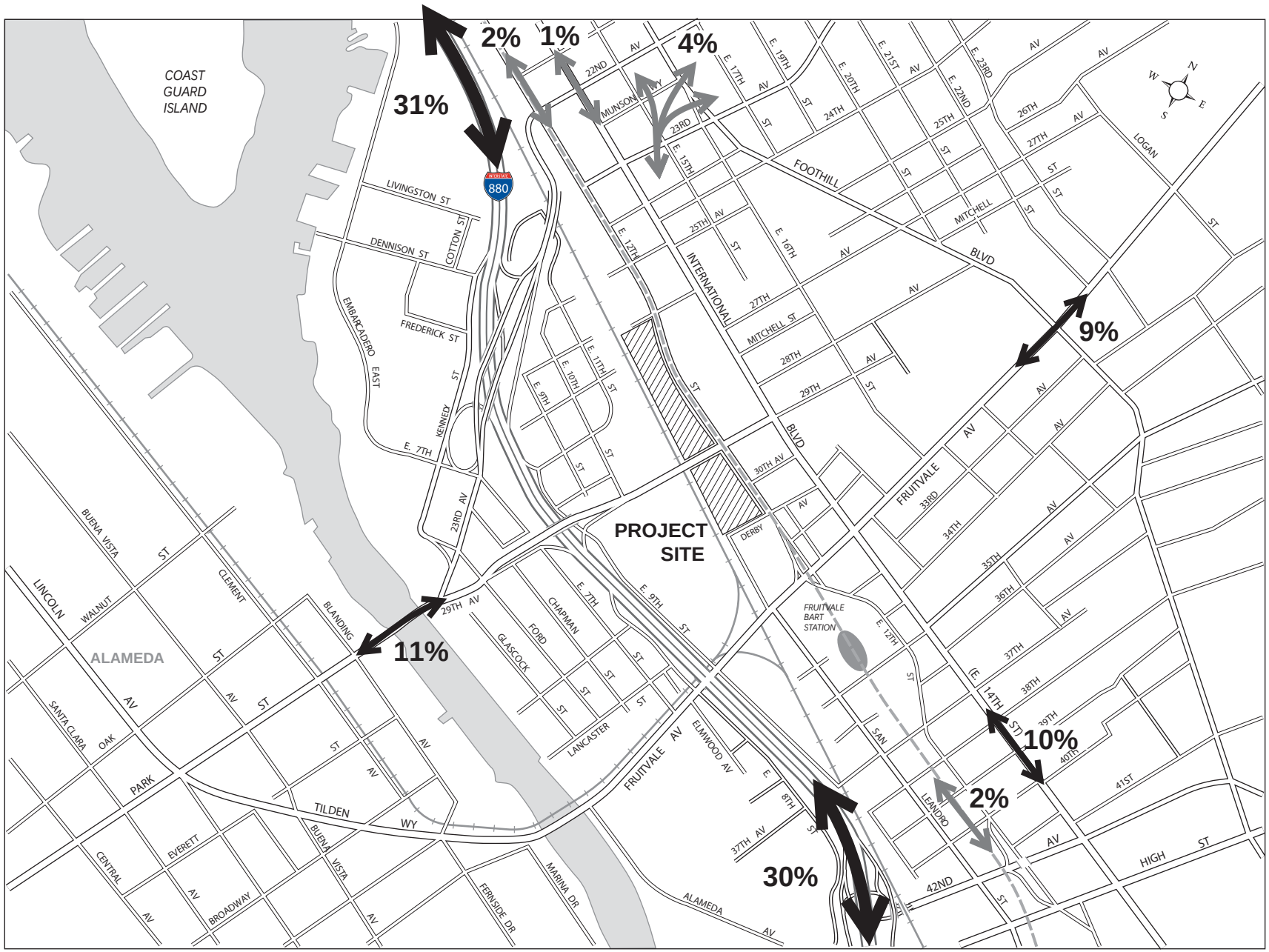
Site Access

Impact TRANS-1: Traffic generated by the proposed project would affect project driveways. (Less than Significant)

Access to the proposed project would be provided by two driveways for the western portion of the project site and two driveways for the eastern portion of the project site. Each of the western portion driveways would be full movement driveways (vehicles would be able to turn right or left out of the driveway, and right or left into the driveway) along East 12th Street; one located

approximately 200 feet east of 26th Avenue, the other approximately 300 feet west of 29th Avenue. Median breaks are to be installed as part of the project on East 12th Street to allow westbound left-turning vehicles to use the western driveways. Both of these western driveways would operate at acceptable LOS for all scenarios. One of the eastern portion driveways would be a right-in, right-out only driveway located on 29th Avenue approximately 180 feet south of East 12th Street. This driveway would operate at an acceptable LOS for all scenarios. The other eastern portion driveway would be a full movement driveway located along Derby Avenue approximately 180 feet south of East 12th Street. This driveway would operate at an acceptable LOS for all scenarios as well. **Figure IV.C-9** illustrates the project site access. Traffic generated by the project would not be expected to cause any of the project driveways to operate at unacceptable conditions.

Mitigation: None Required.

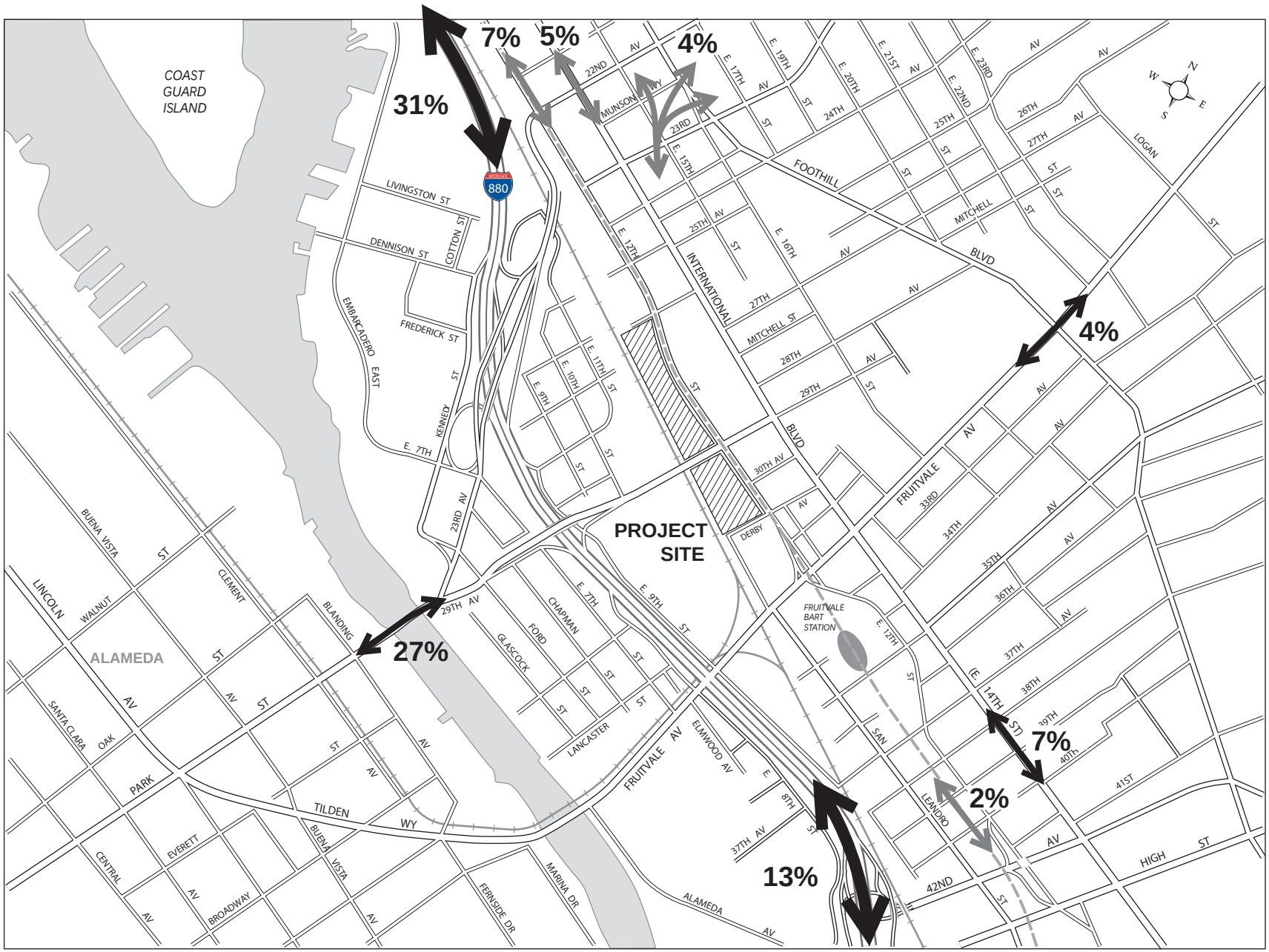


SOURCE: Korve Engineering, 2007

Gateway Community Development Project . 204358

Figure IV.C-6a

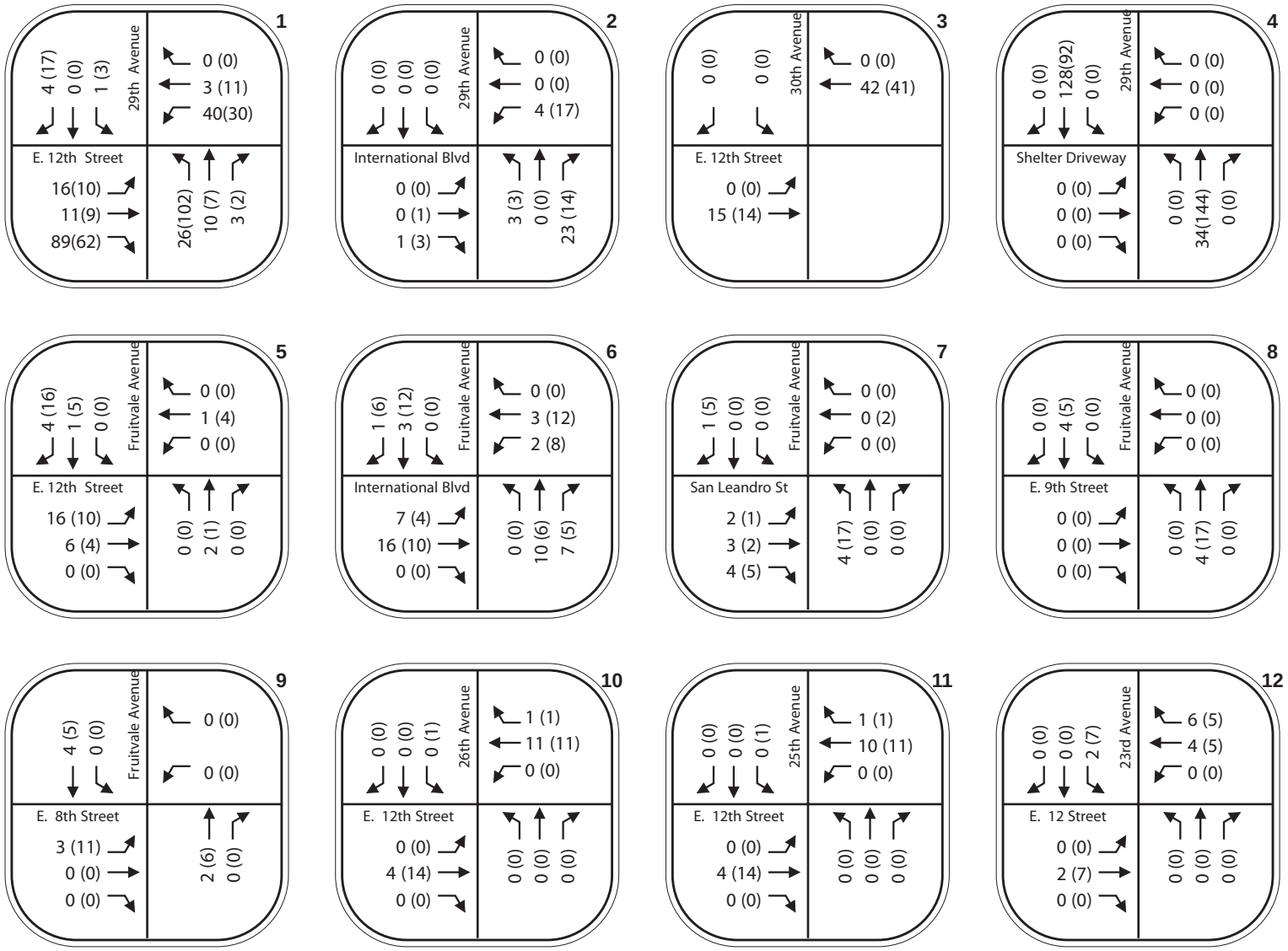
Residential Trip Distribution



SOURCE: Korve Engineering, 2007

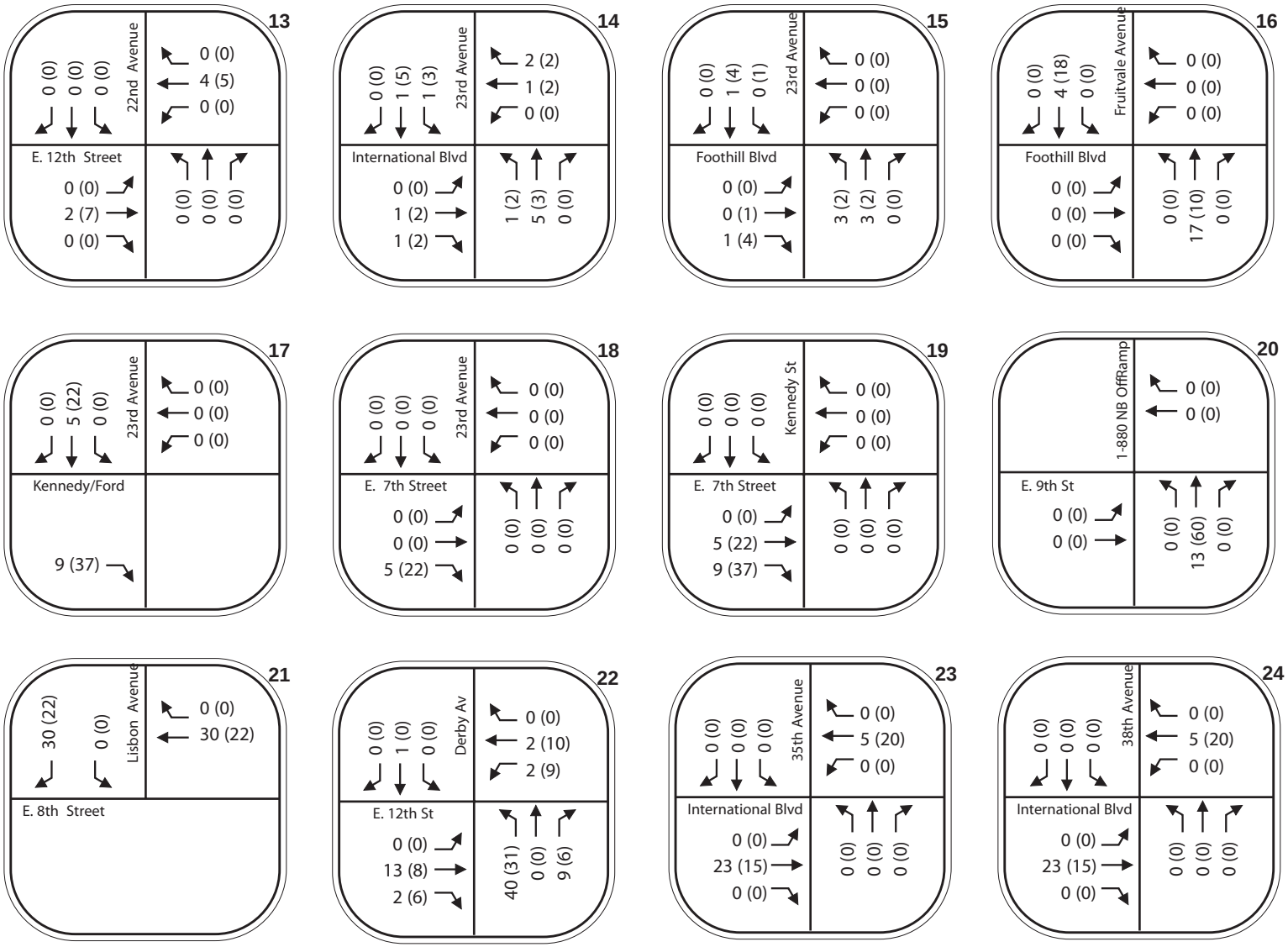
Gateway Community Development Project . 204358

Figure IV.C-6b
Commercial Trip Distribution



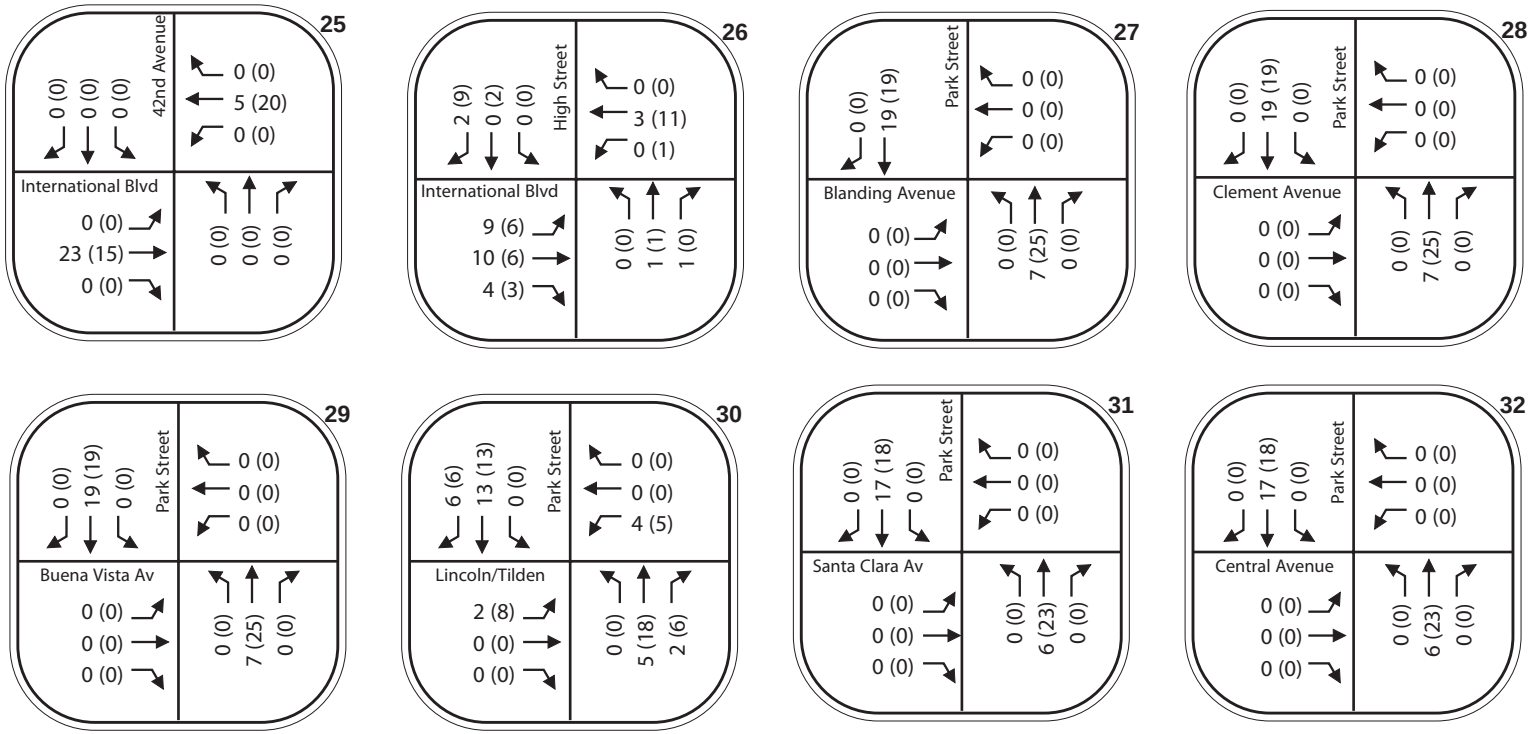
SOURCE: Korve Engineering, 2007

Figure IV.C-7a
Project Traffic Volumes
AM (PM) Peak Hour



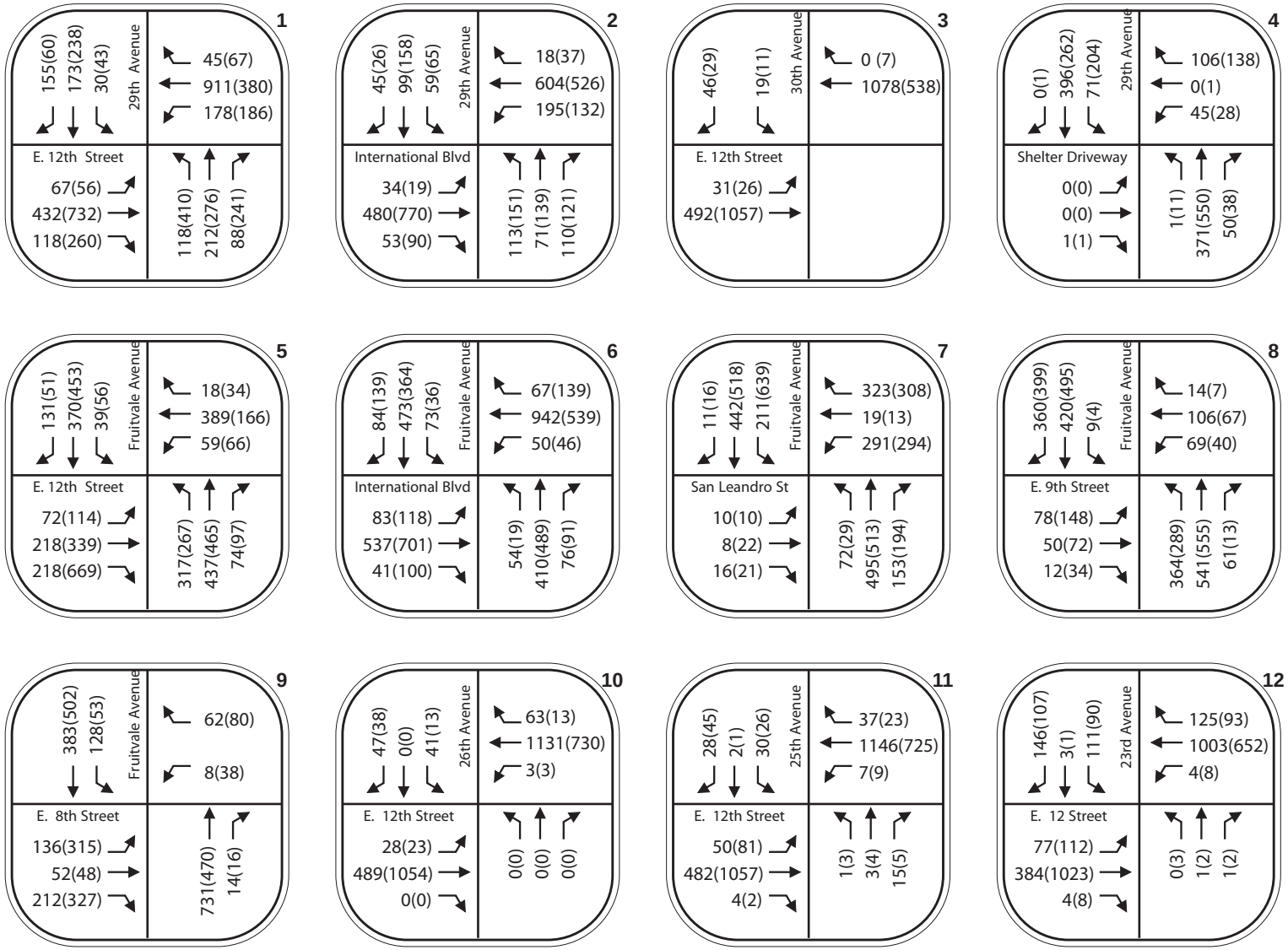
SOURCE: Korve Engineering, 2007

Figure IV.C-7b
Project Traffic Volumes
AM (PM) Peak Hour



SOURCE: Korve Engineering, 2007

Figure IV.C-7c
Project Traffic Volumes
AM (PM) Peak Hour

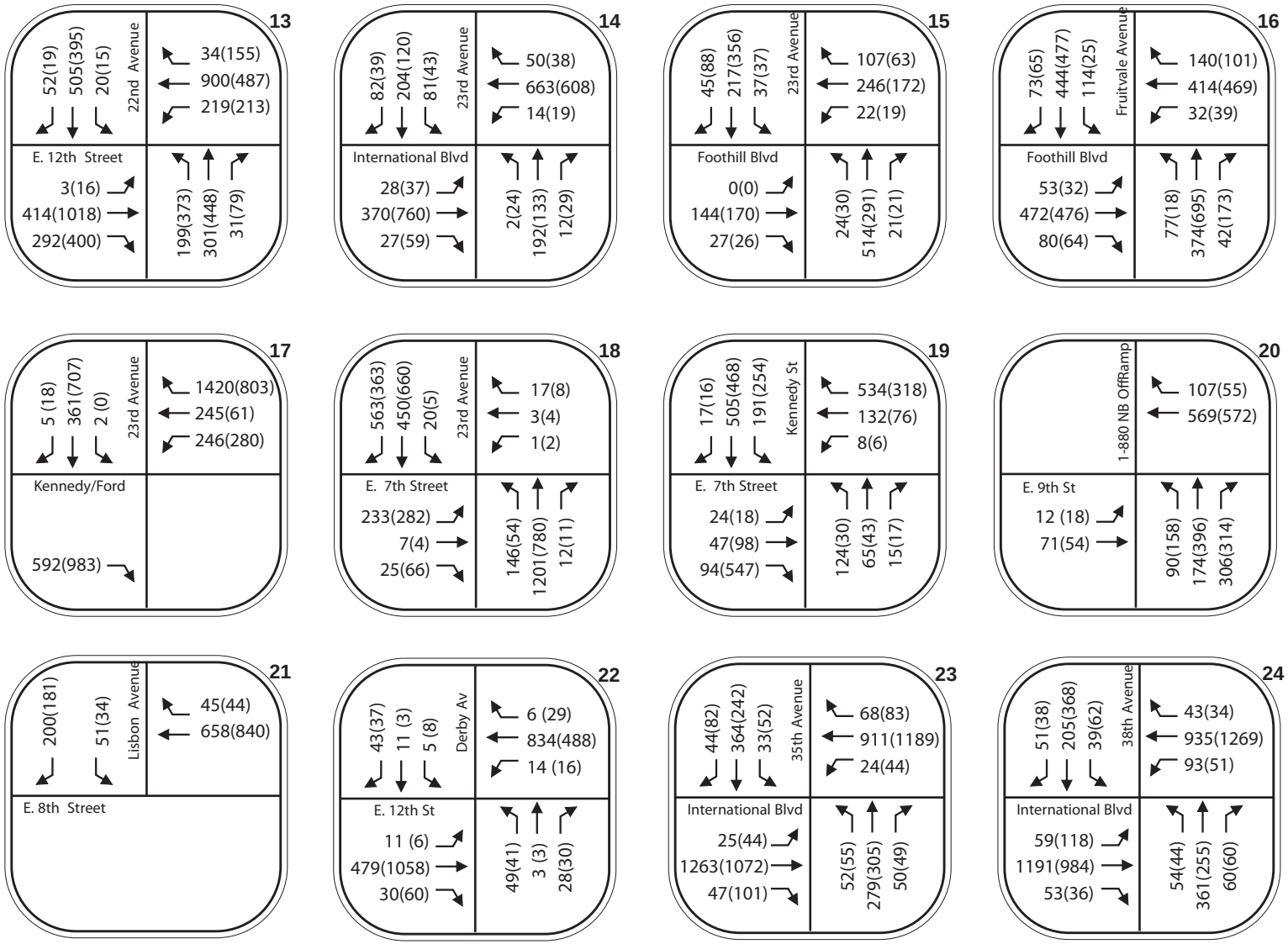


SOURCE: Korve Engineering, 2007

Fruitvale Gateway . 204358

Figure IV.C-8a

Existing (Baseline) + Project Traffic Volumes
AM (PM) Peak Hour

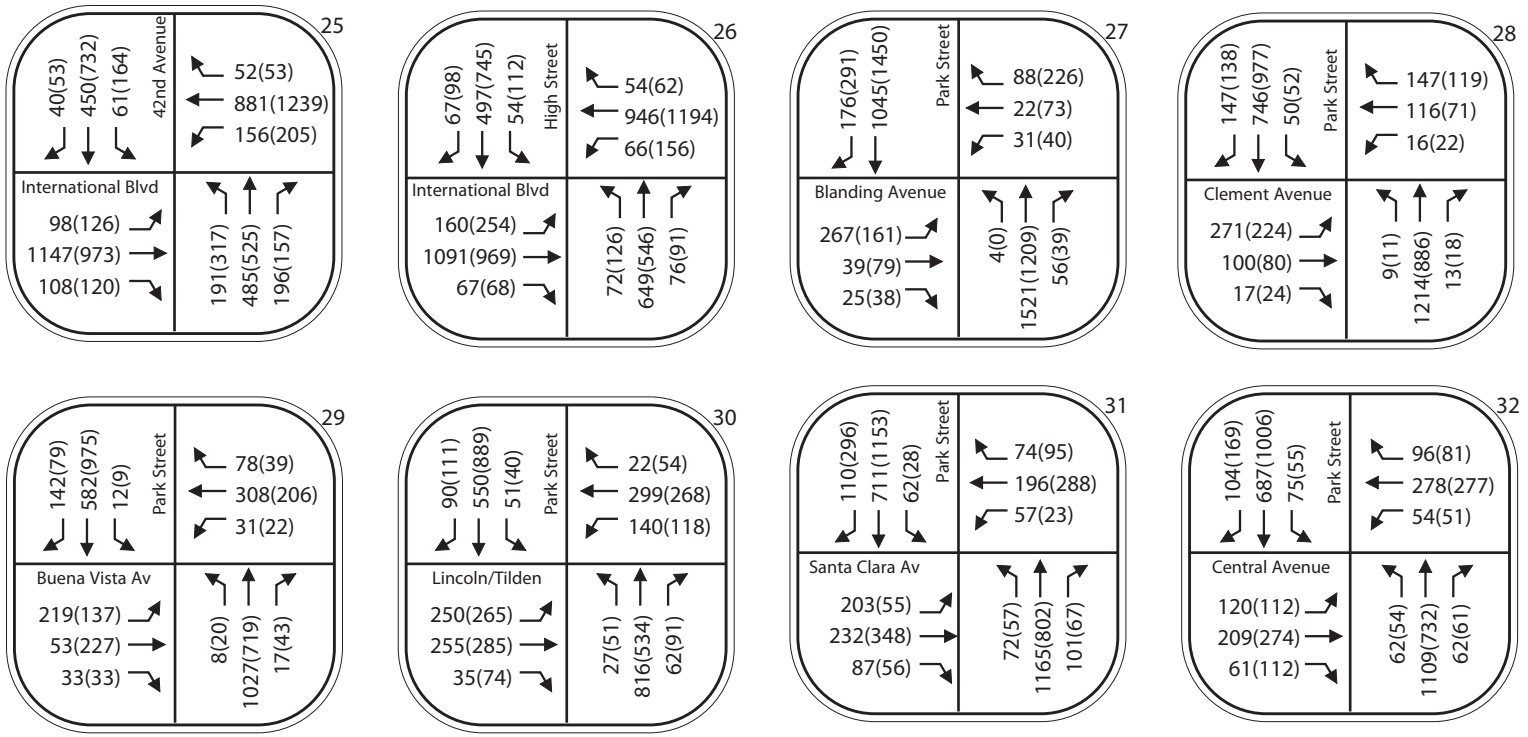


SOURCE: Korve Engineering, 2007

Fruitvale Gateway . 204358

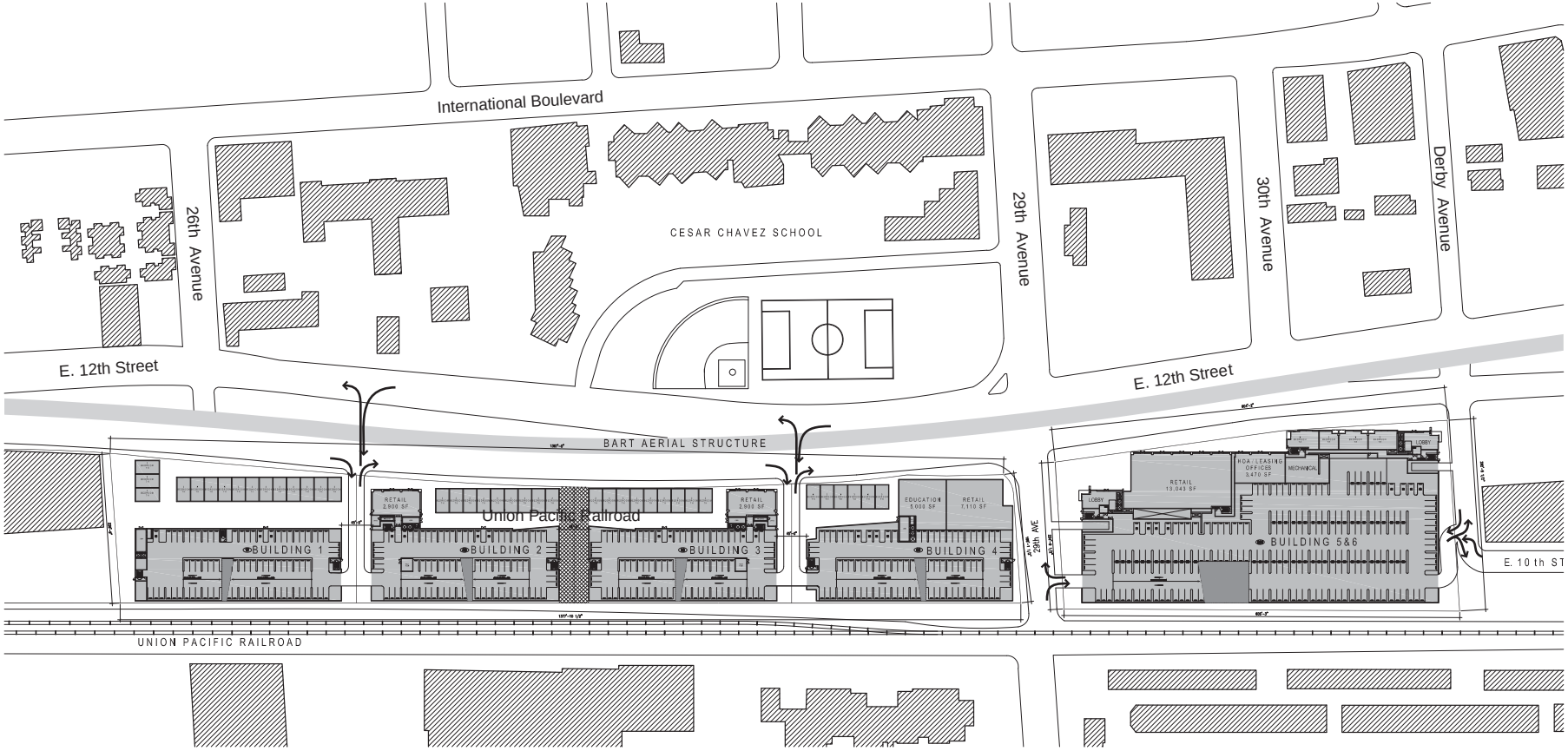
Figure IV.C-8b

Existing (Baseline) + Project Traffic Volumes
AM (PM) Peak Hour



SOURCE: Korve Engineering, 2007

Figure IV.C-8c
Existing (Baseline) + Project Traffic Volumes
AM (PM) Peak Hour



SITE PLAN

True North

North for purposes of document

SOURCE: MBH Architects, 2007

Gateway Community Development Project . 204358

Figure IV.C-9
Site Plan

Intersection Impacts

Baseline plus Project Conditions

Impact TRANS-2: Traffic generated by the project would affect traffic levels of service at the study intersection under Baseline plus Project Conditions. (Potentially Significant)

Table IV.C-8 summarizes the intersection LOS for the Baseline plus Project Conditions. As shown, the following study intersections would operate at LOS E or F with the addition of project-generated traffic (all intersections listed below would operate at LOS E or F in the Baseline Conditions without the addition of project generated traffic, with the exception of East 12th Street at Derby Avenue):

8. East 9th Street at Fruitvale Avenue (p.m. peak hour, Oakland jurisdiction);
11. East 12th Street at 25th Avenue (both peak hours, Oakland jurisdiction);
16. Foothill Boulevard at Fruitvale Avenue (both peak hours, Oakland jurisdiction);
20. East 9th Street at I-880 Northbound Off-Ramp (both peak hours, Caltrans jurisdiction);
22. East 12th Street at Derby Avenue (p.m. peak hour, Oakland jurisdiction); and
25. International Boulevard at 42nd Avenue (p.m. peak hour, Oakland jurisdiction).

Average delay, critical movement delay, and volume-to-capacity ratio increases are evaluated for each signalized intersection operating at unacceptable conditions in the near-term future conditions (where applicable). The results of this analysis are summarized in **Table IV.C-9**. An MUTCD peak hour volume warrant analysis is done for each unsignalized intersection operating at unacceptable conditions.

As shown in **Table IV.C-8** and **Table IV.C-9**, the East 9th at Fruitvale Avenue, Foothill Boulevard at Fruitvale Avenue, and International Boulevard at 42nd Avenue intersections currently operate at LOS E or F and would continue to do so with the addition of project-generated traffic. However, none of these intersections would meet the average delay, critical movement, or volume-to-capacity ratio thresholds outlined in the City of Oakland's significance criteria. Thus, the project would have a less than significant effect on these signalized intersections.

During both peak hours, the worst minor approach of the East 12th Street at 25th Avenue intersection would operate at LOS F with project traffic. During the p.m. peak hour, the worst minor approach of the East 12th Street at Derby Avenue intersection would operate at LOS F with project traffic. In both cases the project adds over ten vehicles, but would not meet the MUTCD Peak-Hour Volume warrant. At both intersections, the worst minor approach would not experience enough total delay (four vehicle hours) or have a high enough volume (100 vehicles) to meet the requirements of the MUTCD Peak-Hour Volume warrant. Thus, the project would have a less than significant effect on conditions at these intersections.

TABLE IV.C-8
BASELINE AND BASELINE PLUS PROJECT PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

			AM Peak Hour				PM Peak Hour			
			Baseline		With Project		Baseline		With Project	
No.	Intersection	Traffic Control[a]	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay
1	East 12th / 29th Ave	Signal	B	18.0	B	18.0	B	18.5	C	26.1
2	International / 29th Ave	Signal	B	19.1	B	19.1	C	23.0	C	23.2
3	East 12th / 30th Ave	TWSC	C	19.2	C	20.1	B	12.2	B	12.5
4	Animal Shelter / 29th Ave[b]	Signal	B	13.0	B	12.9	B	13.2	B	12.9
5	East 12th / Fruitvale Ave	Signal	C	26.0	C	26.6	C	29.0	C	29.1
6	International / Fruitvale Ave	Signal	C	21.1	C	21.8	B	19.8	C	20.2
7	San Leandro / Fruitvale Ave	Signal	C	26.8	C	27.1	C	24.9	C	25.6
8	**East 9th / Fruitvale Ave**	**Signal**	D	40.2	D	40.8	**E**	**56.4**	**E**	**57.4**
9	East 8th / Fruitvale Ave	Signal	B	12.5	B	12.6	C	21.0	C	21.1
10	East 12th / 26th Ave	TWSC	C	20.6	C	20.8	B	11.8	B	12.0
11	**East 12th / 25th Ave**	**TWSC**	**F**	**>80.0**	**F**	**>80.0**	**F**	**54.1**	**F**	**56.2**
12	East 12th / 23rd Ave	Signal	C	21.4	C	21.9	B	19.3	C	20.5
13	East 12th / 22nd Ave[b]	Signal	B	15.7	B	15.7	D	39.3	D	39.2
14	International / 23rd Ave	Signal	B	11.8	B	11.9	A	7.2	A	7.3
15	Foothill / 23rd Ave	Signal	B	10.8	B	10.9	B	10.8	B	10.9
16	**Foothill / Fruitvale Ave[b]**	**Signal**	**E**	**79.0**	**E**	**78.7**	**E**	**69.0**	**E**	**68.5**
17	Kennedy / 23rd Ave[b]	Signal	B	13.2	B	13.1	B	19.4	B	19.5
18	East 7th / 23rd Ave	Signal	B	17.4	B	17.4	B	10.5	B	10.5
19	East 7th / Kennedy St	Signal	A	9.8	A	9.8	C	31.3	D	46.4
20	**East 9th / I-880 NB Off-Ramp**	**AWSC**	**F**	**54.4**	**F**	**55.1**	**F**	**57.4**	**F**	**68.7**
21	East 8th / Lisbon Ave	TWSC	C	15.4	C	15.9	C	17.5	C	17.9
22	**East 12th / Derby Ave**	**TWSC**	C	17.8	C	26.6	C	23.9	**F**	**52.7**
23	International / 35th Ave	Signal	B	12.4	B	12.4	B	12.3	B	12.4
24	International / 38th Ave[b]	Signal	C	24.5	C	24.5	C	33.4	C	33.3
25	**International / 42nd Ave**	**Signal**	C	33.4	C	33.4	**F**	**>80.0**	**F**	**>80.0**
26	International / High St	Signal	C	20.6	C	22.2	D	51.4	D	53.8
27	Blanding / Park St	Signal	B	18.2	B	18.2	B	19.0	B	19.3
28	Clement / Park St	Signal	D	41.9	D	42.6	B	18.2	B	18.5
29	Buena Vista / Park St[b]	Signal	D	35.7	D	35.4	B	12.0	B	12.0
30	Lincoln / Park St	Signal	B	12.0	B	12.1	B	13.7	B	14.1
31	Santa Clara / Park St	Signal	C	29.7	C	30.5	B	16.9	B	17.2
32	Central / Park St	Signal	B	15.9	B	16.0	B	18.3	B	18.9

NOTE: Bold, shaded intersections indicate unacceptable operating conditions.

[a] The LOS and delay for two-way stop controlled intersections represent the worst movement or approach. The LOS and delay for signalized intersections and all-way stop controlled intersections represent the overall intersection.

[b] Project would add trips primarily to non-critical movements, thus resulting in a minor decrease to overall average delay in Baseline plus Project Conditions.

SOURCE: Korve Engineering (2007)

TABLE IV.C-9
BASELINE PLUS PROJECT DETAILED OPERATIONS SUMMARY

No.	Intersection	AM Peak Hour Increase from Baseline			PM Peak Hour Increase from Baseline			Potentially Significant Impact?
		Avg Delay	Critical Move	V/C Ratio	Avg Delay	Critical Move	V/C Ratio	
Baseline Condition degrades from LOS D or better to LOS E or worse:[a]								
22	East 12th / Derby Ave[d]	NA	NA	NA	NA	NA	NA	No
LOS E with and without the addition of project-generated traffic:[a]								
8	East 9th / Fruitvale Ave	----	----	----	1.0	3.1	NA	No
16	Foothill / Fruitvale Ave	0.0	0.0	NA	0.0	0.0	NA	No
LOS F with and without the addition of project-generated traffic:[b]								
11	East 12th / 25th Ave[d]	NA	NA	NA	NA	NA	NA	No
20	**East 9th / I-880 NB Off-Ramp[e]**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**Yes**
25	International / 42nd Ave	----	----	----	NA	NA	0.3%	No

NA = Criteria Not Applicable
---- = Intersection does not operate at specified condition

[a] Based on City of Oakland significance criteria, the project would have a significant impact if intersection LOS deteriorated from LOS D or better to LOS E or worse. Average Delay, Critical Movement, and V/C Ratio thresholds do not apply.

[b] Based on City of Oakland significance criteria, for intersections operating at LOS E in the baseline condition, V/C Ratio thresholds do not apply.

[c] Average delay and critical movement delay cannot be measured accurately. Alternatively, the increase V/C Ratio is shown.

[d] Unsignalized intersection would not meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

[e] Unsignalized intersection meets the requirements of the MUTCD Peak Hour Volume Signal Warrant.

SOURCE: Korve Engineering (2007)

East 9th Street at I-880 Northbound Off-Ramp

The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the East 9th Street at I-880 Northbound Off-Ramp intersection during both peak hours. Implementation of Mitigation Measure TRANS-2a would reduce the impact to a less than significant level.

> **Mitigation Measure TRANS-2a:** Signalize the East 9th Street at I-880 Northbound Off-Ramp intersection. The signal should be built to current Caltrans standards such as full actuation and count-down pedestrian heads.
>
> The project sponsor shall fully fund the installation of a traffic signal at the East 9th Street at I-880 Northbound Off-Ramp intersection. However, the project sponsor would be subject to reimbursement from future projects which would also add traffic to this intersection for all but sponsor's fair share, or as otherwise agreed upon due to the fact that this intersection fails in the Baseline Conditions. After implementation of this measure, the intersection would operate at an acceptable LOS B during both peak hours. The implementation of **Mitigation Measure TRANS-2a** would not lead to any adverse impacts. No other feasible improvements are available at this intersection that would mitigate the project's impact, such as widening or reconfiguration. Widening would not be possible due to physical constraints. Reconfiguring the intersection from all-way stop control to two-way stop

control would cause substantial increases in delay and queuing at the remaining stop-controlled approaches.

Significance after Mitigation: Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure TRANS-2a (changes to the freeway off-ramps) without the approval of Caltrans, the project impact is considered significant and unavoidable.

Near-Term Future 2010 Conditions

Impact TRANS-3: Traffic generated by the proposed project would affect traffic levels of service at the study intersection under near term 2010 Conditions. (Potentially Significant)

Based on the ACCMA Countywide Transportation Demand Model's forecasts, updated to reflect the cumulative land use forecasts of the City of Oakland, increases in traffic levels at each study intersection were estimated. The 2010 Baseline traffic volumes were developed based on growth factors developed from the ACCMA model data and reflected the increase in traffic from all planned development that would affect the study area. Annual growth rates throughout the study area ranged from 0.8 percent to 3.6 percent. The proposed project volumes are then layered on top of the projected 2010 Baseline volumes to create the 2010 plus Project Condition. Although the project would not be fully built by the year 2010, the entire project is analyzed to provide a conservative evaluation of project impacts. **Table IV.C-10** summarizes the LOS in the near-term future conditions.

As shown in **Table IV.C-10**, the following study intersections would operate at LOS E or F with the addition of project-generated traffic to the year 2010 Baseline Condition (all intersections listed below would operate at LOS E or F in the 2010 Baseline Conditions, with the exception of East 7th Street at Kennedy Street and East 12th Street at Derby Avenue):

8. East 9th Street at Fruitvale Avenue (p.m. peak hour, Oakland jurisdiction);
11. East 12th Street at 25th Avenue (both peak hours, Oakland jurisdiction);
13. East 12th Street at 22nd Avenue (p.m. peak hour, Oakland jurisdiction);
16. Foothill Boulevard at Fruitvale Avenue (both peak hours, Oakland jurisdiction);
19. East 7th Street at Kennedy Street (p.m. peak hour, Oakland jurisdiction);
20. East 9th Street at I-880 Northbound Off-Ramp (both peak hours, Caltrans jurisdiction);
22. East 12th Street at Derby Avenue (p.m. peak hour, Oakland jurisdiction);
25. International Boulevard at 42nd Avenue (p.m. peak hour, Oakland jurisdiction); and
26. International Boulevard at High Street (p.m. peak hour, Oakland jurisdiction).

Average delay, critical movement delay, and volume-to-capacity ratio increases are evaluated for each signalized intersection operating at unacceptable conditions in the near-term future conditions (where applicable). The results of this analysis are summarized in **Table IV.C-11**.

As shown in **Table IV.C-10** and **Table IV.C-11**, the East 9th Street at Fruitvale Avenue, East 12th Street at 22nd Avenue, Foothill Boulevard at Fruitvale Avenue, International Boulevard at 42nd Avenue, and International Boulevard at High Street signalized intersections would continue to operate at LOS E or F with the addition of project-generated traffic. However, none of these intersections would meet the average delay, critical movement, or volume-to-capacity ratio thresholds outlined in the City of Oakland's significance criteria. Thus, the project's effect on these signalized intersections would be considered less than significant.

During both peak hours, the worst minor approach of the East 12th Street at 25th Avenue intersection would operate at LOS F with project traffic. At East 12th Street at Derby Avenue intersection, with project traffic, the worst minor approach would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour. At both intersections during both peak hours, the project would add over ten vehicles, but would not meet the MUTCD Peak-Hour Volume warrant. At the East 12th Street at 25th Avenue (p.m. peak hour) and East 12th Street at Derby Avenue (both peak hours) intersections, the worst minor approach would not experience enough total delay (four vehicle hours) or have a high enough volume (100 vehicles) to meet the requirements of the MUTCD Peak-Hour Volume warrant. During the a.m. peak hour, the worst minor approach to the East 12th Street at 25th Avenue intersection would experience over four vehicle hours of total delay, but would not have a high enough volume (100 vehicles) to meet the requirements of the MUTCD Peak-Hour Volume warrant. Thus, the project's effect on conditions at these intersections would be less than significant.

East 7th Street at Kennedy Street

The addition of project traffic would cause the level of service to deteriorate from LOS D to LOS E at the East 7th Street at Kennedy Street intersection during the p.m. peak hour. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth. Implementation of Mitigation Measure C.3a would reduce the impact to a less than significant level.

> **Mitigation Measure TRANS-3a:** Optimize the traffic signal at the intersection of East 7th Street at Kennedy Street. Optimization of traffic signal shall include determination of allocation of green time for each intersection approach in proportion with the relative traffic volumes on those approaches. The signal should be upgraded to current city standards such as full actuation and count-down pedestrian heads.
>
> The project sponsor would be fully responsible for the cost of optimization of the traffic signals, as well as the cost of upgrading the signals to current City standards, at the intersection of East 7th Street at Kennedy Street. However, the project sponsor may be subject to reimbursement from future projects which would also add traffic to this intersection for all but sponsor's fair share, or as otherwise agreed upon. After implementation of this measure, the intersection would operate at an acceptable LOS B during the p.m. peak hour.

Significance after Implementation of Mitigation: Less than Significant.

TABLE IV.C-10
2010 BASELINE AND 2010 PROJECT PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

			AM Peak Hour				PM Peak Hour			
			2010 Baseline		With Project		2010 Baseline		With Project	
No.	Intersection	Traffic Control[a]	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay
1	East 12th / 29th Ave	Signal	C	20.6	C	20.6	C	21.2	C	32.5
2	International / 29th Ave	Signal	C	20.3	C	20.3	C	26.4	C	26.8
3	East 12th / 30th Ave	TWSC	C	24.1	D	25.5	B	13.2	B	13.5
4	Animal Shelter / 29th Ave[b]	Signal	B	13.0	B	12.9	B	13.2	B	13.0
5	East 12th / Fruitvale Ave[b]	Signal	C	29.3	C	28.4	D	37.0	D	37.5
6	International / Fruitvale Ave	Signal	C	22.6	C	23.0	C	20.9	C	21.5
7	San Leandro / Fruitvale Ave	Signal	D	36.4	D	37.0	C	34.9	D	41.2
8	**East 9th / Fruitvale Ave**	**Signal**	**E**	**72.3**	**E**	**73.9**	**F**	**>80.0**	**F**	**>80.0**
9	East 8th / Fruitvale Ave	Signal	B	13.3	B	13.3	C	22.0	C	22.2
10	East 12th / 26th Ave	TWSC	D	28.0	D	28.5	B	12.8	B	13.0
11	**East 12th / 25th Ave**	**TWSC**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
12	East 12th / 23rd Ave	Signal	C	28.3	C	28.9	C	25.3	C	26.7
13	**East 12th / 22nd Ave[b]**	**Signal**	B	17.3	B	17.3	**E**	**58.0**	**E**	**57.9**
14	International / 23rd Ave	Signal	B	13.0	B	13.2	A	7.4	A	7.6
15	Foothill / 23rd Ave	Signal	B	11.2	B	11.3	B	11.2	B	11.2
16	**Foothill / Fruitvale Ave**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**F**	**80.0**	**F**	**>80.0**
17	Kennedy / 23rd Ave[b]	Signal	B	13.5	B	13.4	C	20.3	C	20.5
18	East 7th / 23rd Ave	Signal	C	23.9	C	23.9	B	10.8	B	10.9
19	**East 7th / Kennedy St**	**Signal**	A	10.0	B	10.0	D	39.3	**E**	**56.3**
20	**East 9th / I-880 NB Off-Ramp**	**AWSC**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
21	East 8th / Lisbon Ave	TWSC	C	15.9	C	16.5	C	18.2	C	18.7
22	**East 12th / Derby Ave**	**TWSC**	C	22.3	**E**	**38.5**	D	33.5	**F**	>80.0
23	International / 35th Ave	Signal	B	13.0	B	13.0	B	13.1	B	13.2
24	International / 38th Ave	Signal	C	32.4	C	32.4	D	46.1	D	46.2
25	**International / 42nd Ave[b]**	**Signal**	D	40.1	D	40.0	**F**	**>80.0**	**F**	**>80.0**
26	**International / High St**	**Signal**	C	22.8	C	24.5	**E**	**63.6**	**E**	**66.2**
27	Blanding / Park St	Signal	C	23.6	C	23.6	C	26.6	C	27.5
28	Clement / Park St	Signal	D	50.3	D	50.8	C	21.1	C	21.9
29	Buena Vista / Park St[b]	Signal	D	49.0	D	48.7	B	15.7	B	15.7
30	Lincoln / Park St	Signal	B	12.9	B	13.0	B	14.9	B	15.4
31	Santa Clara / Park St	Signal	D	46.8	D	48.3	C	20.5	C	21.1
32	Central / Park St	Signal	B	18.6	B	18.8	C	23.4	C	24.6

Bold, shaded intersections indicate unacceptable operating conditions.

[a] The LOS and delay for two-way stop controlled intersections represent the worst movement or approach. The LOS and delay for signalized intersections and all-way stop controlled intersections represent the overall intersection.

[b] Project would add trips primarily to non-critical movements, thus resulting in a minor decrease to overall average delay in Baseline plus Project Conditions.

SOURCE: Korve Engineering (2007)

TABLE IV.C-11
2010 PLUS PROJECT DETAILED OPERATIONS SUMMARY

No.	Intersection	AM Peak Hour				PM Peak Hour				Potentially Significant Impact?
		Increase from 2010 Baseline			Percent Project Volume	Increase from 2010 Baseline			Percent Project Volume	
		Avg Delay	Critical Move	V/C Ratio		Avg Delay	Critical Move	V/C Ratio		
Baseline Condition degrades from LOS D or better to LOS E or worse:[a]										
19	**East 7th / Kennedy St**	**----**	**----**	**----**	**----**	**NA**	**NA**	**NA**	**34.9%**	**Yes**
22	East 12th / Derby Ave[c]	NA	NA	NA	32.9%	NA	NA	NA	30.2	No
LOS E with and without the addition of project-generated traffic:[b]										
8	East 9th / Fruitvale Ave	1.6	4.4	NA	2.5%	----	----	----	----	No
13	East 12th / 22nd Ave	----	----	----	----	0.0	0.2	NA	8.2%	No
26	International / High St[d]	----	----	----	----	2.6	NA	1.9%	11.6%	No
LOS F with and without the addition of project-generated traffic:[e]										
8	East 9th / Fruitvale Ave	----	----	----	----	NA	NA	0.1%	6.4%	No
11	East 12th / 25th Ave[c]	NA	NA	NA	6.7%	NA	NA	NA	10.6%	No
16	Foothill / Fruitvale Ave	NA	NA	0.6%	10.3%	NA	NA	0.8%	11.8%	No
20	**East 9th / I-880 NB Off-Ramp[f]**	**NA**	**NA**	**NA**	**8.4%**	**NA**	**NA**	**NA**	**27.0%**	**Yes**
25	International / 42nd Ave	----	----	----	----	NA	NA	0.3%	10.0%	No

NA = Criteria Not Applicable
---- = Intersection does not operate at specified condition

a Based on City of Oakland significance criteria, the project would have a significant impact if intersection LOS deteriorated from LOS D or better to LOS E or worse. Average Delay, Critical Movement, and V/C Ratio thresholds do not apply.

b Based on City of Oakland significance criteria, for intersections operating at LOS E in the baseline condition, V/C Ratio thresholds do not apply.

c Unsignalized intersection would not meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

d Critical movement delays cannot be measured accurately. Alternatively, the increase V/C Ratio is shown.

e Average delay and critical movement delay cannot be measured accurately. Alternatively, the increase V/C Ratio is shown.

f Unsignalized intersection meets the requirements of the MUTCD Peak Hour Volume Signal Warrant.

SOURCE: Korve Engineering (2007)

East 9th Street at I-880 Northbound Off-Ramp

The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the East 9th Street at I-880 Northbound Off-Ramp intersection during both peak hours. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth. Implementation of **Mitigation Measure TRANS-3b** would reduce the impact to a less than significant level.

> **Mitigation Measure TRANS-3b:** The project sponsor shall implement **Mitigation Measure TRANS-2a**.

Significance after Implementation of Mitigation: Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure TRANS-.2a (changes to the freeway off-ramps) without the approval of Caltrans, the project impact is considered Significant and Unavoidable.

Cumulative 2025 Conditions

Impact TRANS-4: Traffic generated by the proposed project in combination with cumulative growth would affect traffic levels of service at local intersections under Cumulative (2025) Conditions. (Potentially Significant)

Traffic increases for each study intersection were estimated based on forecasts from the most recent version of the ACCMA Countywide Transportation Demand Model available at the time this analysis was conducted (September 2006), updated to reflect the cumulative land use forecasts of the City of Oakland. This cumulative scenario includes all development contemplated in the study area. Annual growth rates throughout the study area ranged from 0.8 percent to 3.6 percent. **Table IV.C-12** summarizes the LOS under the cumulative scenarios.

As shown in **Table IV.C-12**, the following study intersections would operate at LOS E or F with the addition of project-generated traffic to the year 2025 Base Condition (all intersections listed below would operate at LOS E or F in the Cumulative Baseline Conditions with the exception of the 12th Street at 23rd Street and 12th Street at 29th Street intersections):

1. East 12th Street at 29th Avenue (p.m. peak hour, Oakland jurisdiction);
2. International Boulevard at 29th Avenue (p.m. peak hour, Oakland jurisdiction);
3. East 12th Street at 30th Avenue (a.m. peak hour, Oakland jurisdiction);
5. East 12th Street at Fruitvale Avenue (both peak hours, Oakland jurisdiction);
6. International Boulevard at Fruitvale Avenue (a.m. peak hour, Oakland jurisdiction);
7. San Leandro Street at Fruitvale Avenue (both peak hours, Oakland jurisdiction);
8. East 9th Street at Fruitvale Avenue (both peak hours, Oakland jurisdiction);
9. East 8th Street at Fruitvale Avenue (p.m. peak hour, Oakland jurisdiction);
10. East 12th Street at 26th Avenue (a.m. peak hour, Oakland jurisdiction);
11. East 12th Street at 25th Avenue (both peak hours, Oakland jurisdiction);
12. East 12th Street at 23rd Avenue (a.m. peak hour, Oakland jurisdiction);
13. East 12th Street at 22nd Avenue (p.m. peak hour, Oakland jurisdiction);
16. Foothill Boulevard at Fruitvale Avenue (both peak hours, Oakland jurisdiction);
18. East 7th Street at 23rd Avenue (a.m. peak hour, Oakland jurisdiction);
19. East 7th Street at Kennedy Street (p.m. peak hour, Oakland jurisdiction);
20. East 9th Street at I-880 Northbound Off-Ramp (both peak hours, Caltrans jurisdiction);
22. East 12th Street at Derby Avenue (both peak hour, Oakland jurisdiction);
25. International Boulevard at 38th Avenue (both peak hours, Oakland jurisdiction);
25. International Boulevard at 42nd Avenue (both peak hour, Oakland jurisdiction);
26. International Boulevard at High Street (p.m. peak hour, Oakland jurisdiction);
27. Blanding Avenue at Park Street (p.m. peak hour, Alameda jurisdiction);

TABLE IV.C-12
2025 PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

			AM Peak Hour				PM Peak Hour			
			2025 Baseline		With Project		2025 Baseline		With Project	
No.	Intersection	Traffic Control[a]	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay
1	**East 12th / 29th Ave[b]**	**Signal**	D	51.8	D	50.7	D	48.7	**E**	**71.6**
2	**International / 29th Ave**	**Signal**	C	32.5	C	32.6	**E**	**79.2**	**F**	**>80.0**
3	**East 12th / 30th Ave**	**TWSC**	**F**	**75.2**	**F**	**>80.0**	C	17.2	C	17.8
4	Animal Shelter / 29th Ave[b]	Signal	B	13.0	B	12.9	B	13.3	B	13.1
5	**East 12th / Fruitvale Ave**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
6	**International / Fruitvale Ave**	**Signal**	**E**	**71.2**	**E**	**75.1**	D	37.2	D	39.9
7	**San Leandro / Fruitvale Ave**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
8	**East 9th / Fruitvale Ave**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
9	**East 8th / Fruitvale Ave**	**Signal**	C	25.3	C	25.8	**E**	**60.2**	**E**	**63.5**
10	**East 12th / 26th Ave**	**TWSC**	**F**	**>80.0**	**F**	**>80.0**	C	17.2	C	17.6
11	**East 12th / 25th Ave**	**TWSC**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
12	**East 12th / 23rd Ave**	**Signal**	D	54.6	**E**	**55.3**	D	45.2	D	46.9
13	**East 12th / 22nd Ave**	**Signal**	C	27.0	C	27.0	**F**	**>80.0**	**F**	**>80.0**
14	International / 23rd Ave	Signal	C	29.0	C	30.0	A	8.7	A	9.0
15	Foothill / 23rd Ave	Signal	B	13.4	B	13.5	B	12.7	B	12.8
16	**Foothill / Fruitvale Ave**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
17	Kennedy / 23rd Ave[b]	Signal	B	14.7	B	14.6	C	24.4	C	24.8
18	**East 7th / 23rd Ave**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	B	12.4	B	12.4
19	**East 7th / Kennedy St**	**Signal**	B	10.8	B	10.8	**E**	**68.5**	**F**	**>80.0**
20	**East 9th / I-880 NB Off-Ramp**	**AWSC**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
21	East 8th / Lisbon Ave	TWSC	C	17.9	C	18.7	C	21.0	C	21.6
22	**East 12th / Derby Ave**	**TWSC**	**F**	**73.6**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
23	International / 35th Ave	Signal	B	16.4	B	16.7	C	23.5	C	24.4
24	**International / 38th Ave[b]**	**Signal**	**E**	**71.1**	**E**	**70.7**	**F**	**>80.0**	**F**	**>80.0**
25	**International / 42nd Ave**	**Signal**	**E**	**71.9**	**E**	**71.9**	**F**	**>80.0**	**F**	**>80.0**
26	**International / High St**	**Signal**	C	33.1	D	35.4	**F**	**>80.0**	**F**	**>80.0**
27	**Blanding / Park St**	**Signal**	D	52.6	D	53.0	**F**	**>80.0**	**F**	**>80.0**
28	**Clement / Park St**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**E**	**71.5**	**E**	**78.2**
29	**Buena Vista / Park St[b]**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	D	44.0	D	43.8
30	Lincoln / Park St	Signal	B	19.4	B	19.7	C	25.0	C	28.2
31	**Santa Clara / Park St**	**Signal**	**F**	**>80.0**	**F**	**>80.0**	**E**	**59.7**	**E**	**63.6**
32	**Central / Park St**	**Signal**	**E**	**58.3**	**E**	**60.7**	**F**	**>80.0**	**F**	**>80.0**

NOTE: Bold, shaded intersections indicate unacceptable operating conditions.

[a] The LOS and delay for two-way stop controlled intersections represent the worst movement or approach. The LOS and delay for signalized intersections and all-way stop controlled intersections represent the overall intersection.

[b] Project would add trips primarily to non-critical movements, thus resulting in a minor decrease to overall average delay in Baseline plus Project Conditions.

SOURCE: Korve Engineering (2007)

28. Clement Avenue at Park Street (both peak hours, Alameda jurisdiction);
29. Buena Vista Avenue at Park Street (a.m. peak hour, Alameda jurisdiction);
31. Santa Clara Avenue at Park Street (both peak hours, Alameda jurisdiction); and
32. Central Avenue at Park Street (both peak hours, Alameda jurisdiction).

Average delay, critical movement delay, and volume-to-capacity ratio increases are evaluated for each signalized intersection operating at unacceptable conditions in the Cumulative Conditions (where applicable). The results of this analysis are summarized in **Table IV.C-13**.

As shown in **Table IV.C-12** and **Table IV.C-13**, the East 12th Street at Fruitvale Avenue, East 9th Street at Fruitvale Avenue, East 8th Street at Fruitvale Avenue, East 12th Street at 22nd Avenue, Foothill Boulevard at Fruitvale Avenue, East 7th Street at 23rd Avenue, International Boulevard at 38th Avenue, International Boulevard at 42nd Avenue, International Boulevard at High Street, Blanding Avenue at Park Street, Buena Vista Avenue at Park Street, Santa Clara Avenue at Park Street, and Central Avenue at Park Street signalized intersections operate at LOS E or F with the addition of project-generated traffic. However, none of these intersections would meet the average delay, critical movement, or volume-to-capacity ratio thresholds outlined in the City of Oakland's significance criteria. Thus, the project's effect on these signalized intersections would be considered less than significant. At the International Boulevard at Fruitvale Avenue and San Leandro Street at Fruitvale Avenue intersections the volume-to-capacity ratio threshold would be met. However, since the project would contribute less than five percent of the cumulative growth at these intersections, the project's effect on these intersections would be considered less than significant. At the International Boulevard at 29th Avenue and the East 12th Street at 23rd Avenue intersections the project would contribute less than five percent of the cumulative growth. Thus, the project's effect on this intersection would also be considered less than significant.

During the a.m. peak hour, the worst minor approach to the East 12th Street at 30th Avenue intersection would operate at LOS F with project traffic. During both peak hours, the worst minor approach of the East 12th Street at Derby Avenue intersection would operate at LOS F with project traffic. In both, the project adds over ten vehicles, but would not meet the MUTCD Peak-Hour Volume warrant. The worst minor approach to the East 12th Street at 30th Avenue intersection (a.m. peak hour) would not experience enough total delay (four vehicle hours) or have a high enough volume (100 vehicles) to meet the requirements of the MUTCD Peak-Hour Volume warrant. The worst minor approach to the East 12th Street at Derby Street intersection (both peak hours) would experience over four vehicle hours of total delay, but would not have a high enough volume (100 vehicles) to meet the requirements of the MUTCD Peak-Hour Volume warrant. Thus, the project's effect on conditions at these intersections would be less than significant.

During the a.m. peak hour, the worst minor approach to the East 12th Street at 26th Avenue intersection would operate at LOS F with project traffic. During both peak hours, the worst minor approach of the East 12th at 25th Avenue intersection would operate at LOS F with project traffic. At both intersections, the requirements of the MUTCD Peak-Hour Volume warrant are met. However, since the project would not contribute over five percent to the cumulative growth, the project's effect on conditions at these intersections would be less than significant.

TABLE IV.C-13
2025 PLUS PROJECT DETAILED OPERATIONS SUMMARY

No.	Intersection	AM Peak Hour				PM Peak Hour				Potentially Significant Impact?
		Increase from 2025 Baseline			Percent Project Volume	Increase from 2025 Baseline			Percent Project Volume	
		Avg Delay	Critical Move	V/C Ratio		Avg Delay	Critical Move	V/C Ratio		
Baseline Ccondition degrades from LOS D or better to LOS E or worse:[a]										
1	**East 12th / 29th Ave**	**----**	**----**	**----**	**----**	**NA**	**NA**	**NA**	**17.9%**	**Yes**
12	East 12th / 23rd Ave	NA	NA	NA	1.4%	----	----	----	----	No
Baseline Condition degrades from LOS E to LOS F:[a]										
2	International / 29th Ave	----	----	----	----	NA	NA	NA	3.6%	No
19	**East 7th / Kennedy St**	**----**	**----**	**----**	**----**	**NA**	**NA**	**NA**	**11.9%**	**Yes**
LOS E with and without the addition of project-generated traffic:[b]										
6	International / Fruitvale[c]	3.9	NA	3.4%	2.9%	----	----	----	----	No
9	East 8th / Fruitvale Ave[c]	----	----	----	----	3.3	NA	1.8%	1.9%	No
24	International / 38th Ave	0.0	0.0	NA	2.9%	----	----	----	----	No
25	International / 42nd Ave	0.0	0.0	NA	2.6%	----	----	----	----	No
28	**Clement / Park St[g]**	**----**	**----**	**----**	**----**	**6.7**	**16.0**	**NA**	**5.3%**	**Yes**
31	Santa Clara / Park St[g]	----	----	----	----	3.9	NA	NA	NA	No
32	Central / Park St[g]	2.4	NA	NA	NA	----	----	----	----	No
LOS F with and without the addition of project-generated traffic:[d]										
3	East 12th / 30th Ave[e]	NA	NA	NA	8.3%	----	----	----	----	No
5	East 12th / Fruitvale Ave	NA	NA	0.1%	1.8%	NA	NA	0.7%	2.0%	No
7	San Leandro / Fruitvale	NA	NA	0.0%	1.0%	NA	NA	4.2%	1.7%	No
8	East 9th / Fruitvale Ave	NA	NA	0.7%	0.6%	NA	NA	0.1%	1.7%	No
10	East 12th / 26th Ave[f]	NA	NA	NA	1.4%	----	----	----	----	No
11	East 12th / 25th Ave[f]	NA	NA	NA	1.8%	NA	NA	NA	2.9%	No
13	East 12th / 22nd Ave	----	----	----	----	NA	NA	0.2%	0.7%	No
16	Foothill / Fruitvale Ave	NA	NA	1.1%	2.8%	NA	NA	0.7%	3.2%	No
18	East 7th / 23rd Ave	NA	NA	0.0%	0.8%	----	----	----	----	No
20	**East 9th / I-880 NB Off-Ramp[f]**	**NA**	**NA**	**NA**	**2.3%**	**NA**	**NA**	**NA**	**8.4%**	**Yes**
22	East 12th / Derby Ave[e]	NA	NA	NA	10.9%	NA	NA	NA	9.8%	No
24	International / 38th Ave	----	----	----	----	NA	NA	0.0%	3.4%	No
25	International / 42nd Ave	----	----	----	----	NA	NA	0.2%	2.7%	No
26	International / High St	----	----	----	----	NA	NA	1.6%	3.2%	No
27	Blanding / Park St[g]	----	----	----	----	1.9	NA	NA	NA	No
28	Clement / Park St[g]	2.1	NA	NA	NA	----	----	----	----	No
29	Buena Vista / Park St[g]	0.0	NA	NA	NA	----	----	----	----	No
31	Santa Clara / Park St[g]	3.3	NA	NA	NA	----	----	----	----	No
32	Central / Park St[g]	----	----	----	----	5.3	NA	NA	NA	Yes

NA = Criteria Not Applicable; ---- = Intersection does not operate at specified condition

[a] Based on City of Oakland significance criteria, the project would have a significant impact if intersection LOS deteriorated from LOS D or better to LOS E or worse, or from LOS E to LOS F. Average Delay, Critical Movement, and V/C Ratio thresholds do not apply.

[b] Based on City of Oakland significance criteria, for intersections operating at LOS E in the baseline condition, V/C Ratio thresholds do not apply.

[c] Critical movement delays cannot be measured accurately. Alternatively, the increase V/C Ratio is shown.

[d] Average delay and critical movement delay cannot be measured accurately. Alternatively, the increase V/C Ratio is shown.

[e] Unsignalized intersection would not meet the requirements of the MUTCD Peak Hour Volume Signal Warrant.

[f] Unsignalized intersection meets the requirements of the MUTCD Peak Hour Volume Signal Warrant.

[g] Critical Movement, V/C Ratio, and Percent Project Volume criteria do not apply to Alameda intersections.

SOURCE: Korve Engineering (2007)

East 12th Street at 29th Avenue

The addition of project traffic would cause the level of service to deteriorate from LOS D to LOS E at the East 12th Street at 29th Avenue intersection during the p.m. peak hour. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth. Implementation of **Mitigation Measure TRANS-4a** would reduce the severity of the impact.

> **Mitigation Measure TRANS-4a:** Widen and reconfigure the northbound approach to the East 12th Street at 29th Avenue intersection to include a left-turn lane, through lane, and a right-turn lane. Adjust signal phasing to protect northbound left turns. The signal should be upgraded to current city standards such as full actuation and count-down pedestrian heads. Although these adjustments would not fully mitigate the project's contribution to cumulative growth, it must be implemented to improve average delay per vehicle, and reduce delay for critical movements.
>
> The project sponsor would be fully responsible for the cost of widening and signal improvement for the northbound approach to the intersection of East 12th Street at 29th Avenue, as well as the cost of upgrading the signals to current City standards. However, the project sponsor may be subject to reimbursement from future projects which would also add traffic to this intersection for all but sponsor's fair share, or as otherwise agreed upon. After mitigation, the intersection would operate at LOS D during the p.m. peak hour. The implementation of **Mitigation Measure TRANS-4a** would not lead to any adverse impacts.
>
> Since the project site straddles both sides of the northbound approach to the intersection of East 12th Street at 29th Avenue, the site plan would need to be adjusted accordingly for widening to take place. The project sponsor would need to dedicate private property to the City of Oakland to facilitate the intersection widening. The new northbound right-turn lane would be approximately 250 feet. Although this is a sufficient length to reduce impacts to less than significant levels, it falls 50 feet short of the 300 feet needed to accommodate the 95th percentile queues during the p.m. peak hour. The right turn lane cannot be extended any further south due to the location of the railroad tracks. However, as discussed later in this chapter, failure to achieve the 95th percentile queuing is not considered a CEQA impact. Thus, the project impacts are less than significant with the proposed mitigation.

Significance after Implementation of Mitigation: Less than Significant.

East 7th Street at Kennedy Street

The addition of project traffic would cause the level of service to deteriorate from LOS E to LOS F at the East 7th Street at Kennedy Street intersection during the p.m. peak hour. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth. Implementation of **Mitigation Measure TRANS-4b** would reduce the impact to a less than significant level.

> **Mitigation Measure TRANS-4b:** The project shall implement **Mitigation MeasureTRANS-3a**.

Significance after Implementation of Mitigation: Less than Significant.

East 9th Street at 1-880 Northbound Off-Ramp

The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the East 9th Street at I-880 Northbound Off-Ramp intersection during both peak hours. Also, the project would make a considerable contribution to cumulative impacts at this intersection since it would contribute over five percent of the cumulative growth. Implementation of **Mitigation Measure TRANS-4c** would reduce the impact to a less than significant level.

> **Mitigation Measure TRANS-4c:** The project shall implement **Mitigation Measure TRANS-2a**.

Significance after Implementation of Mitigation: Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure TRANS-2a (changes to the freeway off-ramps) without the approval of Caltrans, the project impact is considered Significant and Unavoidable.

Clement Avenue at Park Street

The Clement Avenue at Park Street intersection would operate at LOS E with and without the addition of project traffic. However, the addition of project traffic causes the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. Implementation of **Mitigation Measure TRANS-4d** would reduce the impact to a less than significant level.

> **Mitigation Measure TRANS-4d:** Optimize the traffic signal at the intersection of Clement Avenue at Park Street. Optimization of traffic signal shall include determination of allocation of green time for each intersection approach in proportion with the relative traffic volumes on those approaches. The signal should be upgraded to current city standards such as full actuation and count-down pedestrian heads.
>
> The project sponsor shall contribute its fair-share toward the cost of optimization of the traffic signals at the intersection of Clement Avenue at Park Street. The project sponsor's fair share would be the project's contribution to cumulative growth, which is 5.4 percent. After implementation of this measure, the intersection would operate at an acceptable LOS D during the p.m. peak hour.

Significance after Implementation of Mitigation: Less than Significant; however, because the City of Oakland, as lead agency, could not implement part of Mitigation Measure TRANS-4d without the approval of the City of Alameda, the project impact is considered Significant and Unavoidable.

Central Avenue at Park Street

The Central Avenue at Park Street intersection would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour with and without the addition of project traffic. During the a.m. peak hour, the addition of project traffic would not cause the average delay to increase by over four seconds. However, in the p.m. peak hour, the addition of project traffic would cause the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. Thus, the project would create a potentially significant impact at this intersection according to the City of Alameda significance criteria, **Impact TRANS-4e**. The p.m. peak hour left-turn restriction at the intersection is not currently being observed by all motorists. The p.m. peak hour left-turn restriction at the intersection is required to maintain acceptable levels of service. If the p.m. peak hour left-turn restriction is observed, average delay would be reduced substantially, the intersection would operate at LOS D, and no project impact would occur. Since the p.m. peak hour left-turn restriction is not being observed by all motorists, the project impact is considered significant and unavoidable. No other feasible improvements are available at this intersection that would mitigate the project's impact, such as reconfiguring or widening other intersection approaches.

Significance: Significant and Unavoidable.

Freeway Impacts

Baseline plus Project Conditions

Impact TRANS-5: Traffic generated by the project would affect baseline traffic levels on freeway segments in the project area. (Less than Significant)

Levels of service on the freeway system were evaluated based on the volume-to-capacity (V/C) ratio methodology used by the City of Oakland, as well as the density methodology used by Caltrans. The V/C ratio methodology used by the City of Oakland is the criteria used in this document to determine if the project would have a significant traffic impact. **Table IV.C-14** presents peak-hour freeway levels of service with and without the proposed project based on V/C ratios, and vehicle density. Project traffic would represent up to 0.96 percent of traffic volumes on freeway study segments, and the addition of project-generated traffic would not change the LOS on any freeway segment, thus the project impact would be less than significant.

Mitigation: None Required.

Near-Term Future 2010 plus Project Conditions

Impact TRANS-6: Traffic generated by the project would affect traffic levels on freeway segments in the project area under future (2010) Conditions. (Less than Significant)

Levels of service on the freeway system were evaluated based on the volume-to-capacity (V/C) ratio methodology used by the City of Oakland, as well as the density methodology used by Caltrans. The V/C ratio methodology used by the City of Oakland is the criteria used in this report to determine if the project would have a significant traffic impact. **Table IV.C-15** presents peak-hour freeway levels of service in 2010 with and without the proposed project based on V/C ratios, and vehicle density. Project traffic would represent up to 0.94 percent of traffic volumes on freeway study segments, and the addition of project-generated traffic would not change the LOS on any freeway segment, thus the project impact would be less than significant.

Mitigation: None Required.

Cumulative 2025 plus Project Conditions

Impact TRANS-7: Traffic generated by the proposed project would affect traffic levels on freeway segments in the project area under Cumulative (2025) Conditions. (Less than Significant)

Levels of service on the freeway system were evaluated based on the volume-to-capacity (V/C) ratio methodology used by the City of Oakland, as well as the density methodology used by Caltrans. The V/C ratio methodology used by the City of Oakland is the criteria used in this report to determine if the project would have a significant traffic impact. **Table IV.C-16** presents peak-hour freeway levels of service in 2025 with and without the proposed project based on V/C ratios, and vehicle density. Project traffic would represent up to 0.89 percent of traffic volumes on freeway study segments, and the addition of project-generated traffic would not change the LOS on any freeway segment, thus the project impact would be less than significant.

Mitigation: None Required.

Transit Impacts

Impact TRANS-8: The proposed project would increase ridership on public transit providers serving the area. (Less than Significant)

Transit trip generation was based on 2000 Census Journey to Work data. The proposed project would result in approximately 428 daily BART trips and 412 daily AC Transit bus trips to and from the project site on an average weekday. In the morning peak hour, the proposed project would generate approximately 29 BART trips (8 inbound, 21 outbound) and 28 AC Transit bus trips (8 inbound, 20 outbound). In the evening peak commute hour, the project would generate roughly 38 BART trips (21 inbound, 17 outbound) and 37 AC Transit bus trips (21 inbound, 16 outbound).

TABLE IV.C-14
BASELINE AND BASELINE PLUS PROJECT PEAK-HOUR FREEWAY LEVEL OF SERVICE (LOS)

			Volume-to-Capacity Methodology						Density Methodology				
			Baseline			Baseline + Project			Baseline		Baseline + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS	pc/mi/ln	LOS	Pc/mi/ln	LOS	Percent Project Volume
I-880 West of 23rd Street	Westbound	AM	1,820	0.91	E	1,835	0.92	E	29.9	D	30.3	D	0.84%
		PM	1,911	0.96	E	1,922	0.96	E	32.4	D	32.7	D	0.58%
	Eastbound	AM	1,788	0.89	D	1,793	0.90	D	29.2	D	29.3	D	0.24%
		PM	1,828	0.91	E	1,846	0.92	E	30.1	D	30.6	D	0.96%
I-880 East of 29th Avenue/Fruitvale Avenue	Westbound	AM	1,778	0.89	D	1,782	0.89	D	28.9	D	29.0	D	0.18%
		PM	1,868	0.93	E	1,883	0.94	E	31.2	D	31.6	D	0.80%
	Eastbound	AM	1,747	0.87	D	1,762	0.88	D	28.2	D	28.5	D	0.82%
		PM	1,787	0.89	D	1,795	0.90	D	29.1	D	29.3	D	0.48%

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-15
2010 PEAK-HOUR FREEWAY LEVEL OF SERVICE (LOS)

			Volume-to-Capacity Methodology						Density Methodology				
			2010			2010 + Project			2010		2010 + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS	pc/mi/ln	LOS	pc/mi/ln	LOS	Percent Project Volume
I-880 West of 23rd Street	Westbound	AM	1,854	0.93	E	1,869	0.93	E	30.8	D	31.2	D	0.82%
		PM	1,947	0.97	E	1,958	0.98	E	33.5	D	33.8	D	0.56%
	Eastbound	AM	1,822	0.91	E	1,826	0.91	E	30.0	D	30.1	D	0.23%
		PM	1,863	0.93	E	1,880	0.94	E	31.0	D	31.5	D	0.94%
I-880 East of 29th Avenue/Fruitvale Avenue	Westbound	AM	1,812	0.91	E	1,815	0.91	E	29.7	D	29.8	D	0.18%
		PM	1,903	0.95	E	1,918	0.96	E	32.1	D	32.6	D	0.79%
	Eastbound	AM	1,780	0.89	D	1,794	0.90	D	29.0	D	29.3	D	0.80%
		PM	1,820	0.91	E	1,829	0.91	E	29.9	D	30.1	D	0.47%

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-16
CUMULATIVE (YEAR 2025) PEAK-HOUR FREEWAY LEVEL OF SERVICE (LOS)

			Volume-to-Capacity Methodology						Density Methodology				
			2025			2025 + Project			2025		2025 + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS	pc/mi/ln	LOS	pc/mi/ln	LOS	Percent Project Volume
I-880 West of 23rd Street	Westbound	AM	1,960	0.98	E	1,976	0.99	E	33.9	D	34.4	D	0.78%
		PM	2,059	1.03	F	2,070	1.03	F	37.3	E	37.7	E	0.53%
	Eastbound	AM	1,926	0.96	E	1,930	0.97	E	32.8	D	32.9	D	0.22%
		PM	1,969	0.98	E	1,987	0.99	E	34.2	D	34.7	D	0.89%
I-880 East of 29th Avenue/Fruitvale Avenue	Westbound	AM	1,916	0.96	E	1,919	0.96	E	32.5	D	32.6	D	0.17%
		PM	2,012	1.01	F	2,027	1.01	F	35.6	E	36.1	E	0.75%
	Eastbound	AM	1,882	0.94	E	1,896	0.95	E	31.6	D	32.0	D	0.76%
		PM	1,924	0.96	E	1,933	0.97	E	32.8	D	33.0	D	0.44%

SOURCE: Korve Engineering and Caltrans (2007)

Project BART Ridership. The potential project-related impacts on both BART lines and the BART Station by the project were investigated. The project generated BART trips were assigned to each of the BART lines at the Fruitvale BART Station on the basis of the baseline ridership share of each line. The number of new project-related trips assigned to BART during either peak hour ranges from one to seven per line, which would result in less than a one percent increase in ridership. The increases are all less than the three percent significance threshold for impact on BART service. In addition, load factors would be less than 115 percent for lines in the East Bay and 135 percent for transbay lines, with the proposed project, and would be in compliance with the performance measures of BART described in the *2003 Congestion Management Program* (CMP 2003) of the Alameda County Congestion Management Agency.

During the morning peak hour, passengers entering the Fruitvale BART Station would increase by approximately one percent due to the project. During the evening peak hour, passengers exiting the Fruitvale BART Station would increase by just over one percent due to the project. On average, the proposed project would result in an average increase of less than one person per train on the busiest BART line during either peak hour. The project is not expected to adversely affect the operation of the Fruitvale BART Station.

Project AC Transit Ridership. The potential project-related impacts on AC Transit were evaluated by calculating the total number of bus trips generated by the project and then distributing the bus trips to the bus lines near the project based on the trip distribution pattern. Since the maximum load factor does not reach 125 percent with the project, the threshold of significance is not met, thus the project's contribution to transit impacts as it concerns AC Transit Ridership would be less than significant.

Mitigation: None Required.

Pedestrian and Bicycle Facilities Impacts

Impact TRANS-9: Development of the proposed project would conflict with existing pedestrian and/or bicycle facilities. (Less than Significant)

As described in the *Environmental Setting* of this section, there are Class 1, 2, and 3 bicycle facilities on East 7th Street and Fruitvale Avenue-Tilden Way that provide access to the project area. The project is not in conflict with the City's long term plans to add bicycle lanes to East 12th Street.

With the exception of the at-grade railroad crossing on 29th Avenue just south of the proposed project site and Derby Avenue south of East 12th Street, all streets provide sufficient sidewalks for pedestrian circulation in the project area. However, as part of the project, sidewalks would be installed along Derby Avenue along the edge of the project site. Transit trips generated by the project exiting the project site from any street would have sufficient sidewalks available for paths to BART or AC Transit bus stops. The pedestrian path to the Fruitvale Bart Station is east along East 12th Street from the project site. Pedestrian paths to the AC Transit bus stops include walking

west along East 12th Street from the project site to the intersection of East 12th Street and 26th Avenue, walking north along 29th Avenue from the project site to the intersection of International Boulevard and 29th Avenue, and walking east along East 12th Street from the project site to the Fruitvale BART Station.

Mitigation: None Required.

Impact TRANS-10: Development of the proposed project would require improvements to pedestrian and/or bicycle facilities. (Less than Significant)

The project would result in a significant impact if it would increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature that does not comply with Caltrans design standards, or due to the introduction of incompatible uses. The project, including all potential improvements to be implemented by the project, would be built to modern engineering standards, and would not create design features dangerous to pedestrians, bicyclists, or motorists. Thus, the project would not create a significant impact to pedestrians or bicyclists relative to project design. This is nevertheless discussed under *Evaluation of Non-CEQA Impacts,* presented further in this section.

Mitigation: None Required.

Construction

Impact TRANS-11: Construction of the proposed project would affect traffic flow and circulation, parking, and pedestrian safety. (Potentially Significant)

During the construction period, temporary and intermittent transportation impacts would result from truck movements as well as construction worker vehicles traveling to and from the project site. The construction-related traffic would result in a temporary reduction to the capacities of project area streets because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Given the proximity of I-880 freeway ramps, use of local roadways would be limited. Truck traffic that occurs during the peak commute hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) could result in worse levels of service and higher delays at local intersections than during off-peak hours. Also, parking of construction workers' vehicles would temporarily increase parking occupancy levels in the area.

As part of the build-out of the proposed project, all sidewalks and pedestrian ramps bordering the project site will be reconstructed. All ramps adjacent to the project site are to be upgraded to full Americans with Disabilities Act (ADA) compliance.

> **Standard Condition TRANS-11:** Prior to the issuance of each building permit, the project sponsor and construction contractor shall meet with the Transportation Services Division of the Oakland Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic

congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project sponsor shall develop a construction management plan for review and approval by the City Transportation Services Division. The plan shall include at least the following items and requirements:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
- Location of construction staging areas for materials, equipment, and vehicles (must be located on the project site).
- Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.
- Temporary construction fences to contain debris and material and to secure the site.
- Provisions for removal of trash generated by project construction activity.
- A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.
- Provisions for monitoring surface streets used for truck routes so that any damage and debris attributable to the trucks can be identified and corrected.
- Subject to City review and approval, prior to start of construction, a construction worker transportation demand management (TDM) program shall be implemented to encourage construction workers to carpool or use alternative transportation modes in order to reduce the overall number of vehicle trips associated with construction workers.

Significance after Implementation of Standard Condition: Less than Significant.

Congestion Management Program Evaluation

Impact TRANS-12: Development of the proposed project would have a cumulative impact on roadway segments in the regional traffic network. (Less than Significant)

The Alameda County Congestion Management Program (CMP) requires the assessment of development-driven impacts to regional roadways. Because the project would generate more than 100 “net new” p.m. peak-hour trips, the CMP requires the use of the Countywide Travel Demand Forecasting Model to assess the impacts on regional roadways near the project site, such as those identified in the Metropolitan Transportation Commission’s Metropolitan Transportation System

(MTS) Network. Roadways identified in the MTS Network near the project site include International Boulevard, East 12th Street, 29th Avenue, Fruitvale Avenue, and I-880.

The Countywide Model is a regional travel demand model that uses socio-economic data and roadway and transit network assumptions to forecast traffic volumes and transit ridership using a four-step modeling process that includes trip generation, trip distribution, mode split, and trip assignment. This process takes into account changes in travel patterns due to future growth and balances trip productions and attractions.

For the purposes of the CMP Analysis, the land uses of the proposed project were added to the assumptions in the Countywide Model; the land use assumptions in the Countywide Model for the rest of the City of Oakland were not modified. At this time, these land uses are different from the Oakland Cumulative Scenario that was used for the cumulative analysis in this EIR. This version of the Countywide Model was based on ABAG *Projections 2002* land uses for 2010 and 2025. **Table IV.C-17** and **Table IV.C-18** summarize the freeway analysis for the 2010 and 2025 densities, volume-capacity ratios, and corresponding LOS. **Tables IV.C-19** and **IV.C-20** summarize the volume-capacity ratio and LOS for major roadway segments in the study area for 2010, 2010 with BRT, 2025, and 2025 with BRT. As shown in the tables, the CMP analysis identified no additional project-related traffic impacts or cumulative impacts.

Mitigation: None Required.

Evaluation of Non-CEQA Impacts

95th Percentile Queues

Although not required under CEQA or by the City of Oakland's significance criteria, the City would like to assess the project's effect on 95th percentile queuing as part of its review of the proposed project. As such, 95th percentile queues are evaluated where closely spaced signalized intersections exist, and where queues can be expected to exceed the given storage. In the baseline condition, intersections along the Fruitvale Avenue corridor are generally fairly congested, with relatively short storage lengths. With the anticipated growth in the area, queues can be expected to exceed storage at a number of locations along Fruitvale Avenue. The baseline storage lengths for all applicable locations are provided in **Table IV.C-21**.

As noted in Mitigation Measure TRANS-4a, the proposed northbound right-turn lane at the East 12th Street at 29th Avenue intersection would not accommodate the expected 95th percentile queues during the p.m. peak hour in the 2025 plus Project Conditions due to physical constraints. However, since the expected queuing would not reach upstream intersections, it has not been evaluated as part of this 95th percentile queuing analysis.

TABLE IV.C-17
2010 PEAK-HOUR FREEWAY LEVEL OF SERVICE (LOS) – ACCMA LAND USE

			Volume-to-Capacity Methodology						Density Methodology				
			2010			2010 + Project			2010		2010 + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS	pc/mi/ln	LOS	pc/mi/ln	LOS	Percent Project Volume
I-880 West of 23rd Street	Westbound	AM	1,854	0.93	E	1,869	0.93	E	30.8	D	31.2	D	0.82%
		PM	1,946	0.97	E	1,957	0.98	E	33.5	D	33.8	D	0.57%
	Eastbound	AM	1,821	0.91	E	1,826	0.91	E	30.0	D	30.1	D	0.23%
		PM	1,861	0.93	E	1,879	0.94	E	31.0	D	31.5	D	0.94%
I-880 East of 29th Avenue/Fruitvale Avenue	Westbound	AM	1,811	0.91	E	1,815	0.91	E	29.7	D	29.8	D	0.18%
		PM	1,902	0.95	E	1,917	0.96	E	32.1	D	32.6	D	0.79%
	Eastbound	AM	1,780	0.89	D	1,794	0.90	D	29.0	D	29.3	D	0.80%
		PM	1,818	0.91	E	1,827	0.91	E	29.9	D	30.1	D	0.47%

SOURCE: Korve Engineering (2007) and Caltrans

TABLE IV.C-18
CUMULATIVE (YEAR 2025) PEAK-HOUR FREEWAY LEVEL OF SERVICE (LOS) – ACCMA LAND USE

			Volume-to-Capacity Methodology						Density Methodology				
			2025			2025 + Project			2025		2025 + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS	pc/mi/ln	LOS	pc/mi/ln	LOS	Percent Project Volume
I-880 West of 23rd Street	Westbound	AM	1,957	0.98	E	1,973	0.99	E	33.9	D	34.4	D	0.78%
		PM	2,055	1.03	F	2,066	1.03	F	37.3	E	37.7	E	0.54%
	Eastbound	AM	1,926	0.96	E	1,930	0.96	E	32.8	D	32.9	D	0.22%
		PM	1,959	0.98	E	1,977	0.99	E	34.2	D	34.7	D	0.89%
I-880 East of 29th Avenue/Fruitvale Avenue	Westbound	AM	1,913	0.96	E	1,917	0.96	E	32.5	D	32.6	D	0.17%
		PM	2,010	1.01	F	2,025	1.01	F	35.6	E	36.1	E	0.75%
	Eastbound	AM	1,886	0.94	E	1,900	0.95	E	31.6	D	32.0	D	0.76%
		PM	1,913	0.96	E	1,922	0.96	E	32.8	D	33.0	D	0.44%

SOURCE: Korve Engineering (2007) and Caltrans

TABLE IV.C-19
2010 AND 2010 PLUS PROJECT PEAK-HOUR
ROADWAY SEGMENT LEVEL OF SERVICE (LOS) – ACCMA LAND USE

			Volume-to-Capacity Methodology					
			2010			2010 + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS
International Boulevard Between 26th Avenue and 29th Avenue	Westbound	AM	390	0.43	B	392	0.44	B
		PM	382	0.42	B	383	0.43	B
	Eastbound	AM	301	0.33	A	301	0.33	A
		PM	452	0.50	B	455	0.50	B
International Boulevard Between 29th Avenue and Fruitvale Avenue	Westbound	AM	415	0.46	B	417	0.46	B
		PM	347	0.39	B	356	0.40	B
	Eastbound	AM	333	0.37	B	345	0.38	B
		PM	512	0.57	C	519	0.58	C
East 12th Street Between 23rd Avenue and 29th Avenue	Westbound	AM	586	0.65	C	592	0.66	C
		PM	376	0.42	B	382	0.42	B
	Eastbound	AM	258	0.29	A	260	0.29	A
		PM	500	0.56	C	508	0.56	C
East 12th Street Between 29th Avenue and Fruitvale Avenue	Westbound	AM	557	0.62	C	578	0.64	C
		PM	303	0.34	A	324	0.36	B
	Eastbound	AM	275	0.31	A	287	0.32	A
		PM	520	0.58	C	527	0.59	C
29th Avenue Between International Blvd. and East 12th Street	Northbound	AM	152	0.17	A	166	0.18	A
		PM	208	0.23	A	217	0.24	A
	Southbound	AM	185	0.21	A	188	0.21	A
		PM	187	0.21	A	197	0.22	A
29th Avenue Between East 12th Street and Animal Shelter	Northbound	AM	172	0.19	A	192	0.21	A
		PM	208	0.23	A	264	0.29	A
	Southbound	AM	88	0.10	A	152	0.17	A
		PM	147	0.16	A	193	0.21	A
Fruitvale Avenue Between International Blvd. and 16th Street	Northbound	AM	275	0.31	A	283	0.31	A
		PM	371	0.41	B	376	0.42	B
	Southbound	AM	316	0.35	B	318	0.35	B
		PM	274	0.30	A	284	0.31	A
San Leandro Street Between Fruitvale Street and 34th Avenue	Westbound	AM	189	0.21	A	189	0.21	A
		PM	437	0.49	B	439	0.49	B
	Eastbound	AM	337	0.37	B	339	0.38	B
		PM	320	0.36	B	321	0.36	B

SOURCE: Korve Engineering (2007) and Caltrans

TABLE IV.C-20
CUMULATIVE (YEAR 2025) AND 2025 PLUS PROJECT PEAK-HOUR ROADWAY SEGMENT LEVEL OF SERVICE (LOS) – ACCMA LAND USE

			Volume-to-Capacity Methodology					
			2025 Base			2025 + Project		
Location	Direction	Peak Hour	Veh/lane	V/C	LOS	Veh/lane	V/C	LOS
International Boulevard Between 26th Avenue and 29th Avenue	Westbound	AM	516	0.57	C	518	0.58	C
		PM	482	0.54	B	484	0.54	B
	Eastbound	AM	346	0.38	B	347	0.39	B
		PM	468	0.52	B	470	0.52	B
International Boulevard Between 29th Avenue and Fruitvale Avenue	Westbound	AM	459	0.51	B	461	0.51	B
		PM	376	0.42	B	384	0.43	B
	Eastbound	AM	345	0.38	B	357	0.40	B
		PM	600	0.67	C	607	0.67	C
East 12th Street Between 23rd Avenue and 29th Avenue	Westbound	AM	637	0.71	C	643	0.71	C
		PM	490	0.54	C	496	0.55	C
	Eastbound	AM	310	0.34	A	312	0.35	B
		PM	517	0.57	C	524	0.58	C
East 12th Street Between 29th Avenue and Fruitvale Avenue	Westbound	AM	616	0.68	C	637	0.71	C
		PM	328	0.36	B	349	0.39	B
	Eastbound	AM	293	0.33	A	304	0.34	B
		PM	543	0.6	C	551	0.61	C
29th Avenue Between International Blvd. and East 12th Street	Northbound	AM	161	0.18	A	174	0.19	A
		PM	205	0.23	A	214	0.24	A
	Southbound	AM	218	0.24	A	221	0.24	A
		PM	194	0.22	A	204	0.23	A
29th Avenue Between East 12th Street and Animal Shelter	Northbound	AM	169	0.19	A	188	0.21	A
		PM	227	0.25	A	283	0.31	A
	Southbound	AM	106	0.12	A	170	0.19	A
		PM	168	0.19	A	214	0.24	A
Fruitvale Avenue Between International Blvd. and 16th Street	Northbound	AM	299	0.33	A	308	0.34	A
		PM	409	0.45	B	414	0.46	B
	Southbound	AM	356	0.4	B	358	0.40	B
		PM	281	0.31	A	290	0.32	A
San Leandro Street Between Fruitvale Street and 34th Avenue	Westbound	AM	208	0.23	A	208	0.23	A
		PM	470	0.52	B	471	0.52	B
	Eastbound	AM	394	0.44	B	396	0.44	B
		PM	332	0.37	B	333	0.37	B

SOURCE: Korve Engineering (2007) and Caltrans

TABLE IV.C-21
BASELINE CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	300'	300'	300'	400'		
International / Fruitvale	400'			365'		
San Leandro / Fruitvale	600'			300'	300'	
East 9th / Fruitvale	100'	100'		100'	550'	
East 8th / Fruitvale	NA			100'	100'	-

The 95th percentile queues for all scenarios are shown in **Table IV.C-22** through **Table IV.C-27**. The 95th percentile queue length is an approximation of a worst-case scenario queue length calculated using the average queues over the course of a given peak hour. Thus, the values are not shown in precise increments.

For the Baseline Conditions and Baseline plus Project Conditions, none of the 95th percentile queue lengths exceed their respective lanes' storage lengths at the intersections of East 12th Street at Fruitvale Avenue, International Boulevard at Fruitvale Avenue, or San Leandro Street at Fruitvale Avenue. At the intersection of East 9th Street at Fruitvale Avenue, both northbound turning movements and the southbound through-right movement contain queues exceeding their storage lengths and grow longer with the addition of the project during both peak hours. At the intersection of East 8th Street at Fruitvale Avenue, the southbound through queue would exceed the baseline storage during the p.m. peak hour.

For the 2010 Baseline Conditions and 2010 plus Project Conditions, none of the 95th percentile queue lengths exceed their respective lanes' storage lengths at the intersections of East 12th Street at Fruitvale Avenue or International Boulevard at Fruitvale Avenue. The San Leandro Street and Fruitvale Avenue intersection's southbound left-turn and through queues would exceed its storage length in the 2010 Baseline Condition and 2010 plus Project Conditions during the p.m. peak hour. At the intersection of East 9th Street at Fruitvale Avenue, both northbound turning movements and the southbound through-right movement contain queues exceeding their storage lengths and grow longer with the addition of the project during both peak hours. At the intersection of East 8th Street at Fruitvale Avenue, the southbound through queue would exceed the baseline storage during the p.m. peak hour.

For Cumulative Baseline Conditions and Cumulative plus Project Conditions, the 95th percentile queue at the southbound through movement at the intersection of East 12th Street at Fruitvale Avenue would exceed the baseline storage during the p.m. peak hour. At the intersections of International Boulevard at Fruitvale Avenue, none of the 95th percentile queue lengths exceed their respective lanes' storage lengths. At the San Leandro Street and Fruitvale Avenue intersection, northbound through queues would exceed its storage length during the a.m. peak hour, and the southbound left-turn and through queues would exceed its storage length during the p.m. peak hour. At the intersection of East 9th Street at Fruitvale Avenue, both northbound turning movements and the southbound through-right movement contain queues

TABLE IV.C-22
BASELINE CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	AM Peak Hour						PM Peak Hour					
	Northbound			Southbound			Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	145’	33’	-	190’			135’	220’	-			
International/Fruitvale	146’			197’			191’			161’		
San Leandro / Fruitvale	198’			170’	165’		243’			300’	287’	
East 9th / Fruitvale	**366’**	**363’**		3’	**352’**		100’	**354’**		1’	**818’**	
East 8th / Fruitvale	NA			13’	38’	-	NA			14’	**199’**	-

Bold = Queue length exceeds storage length.

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-23
BASELINE PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	AM Peak Hour						PM Peak Hour					
	Northbound			Southbound			Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	145’	33’	-	192’			127’	220’	-	176’		
International/Fruitvale	150’			198’			194’			167’		
San Leandro / Fruitvale	203’			170’	165’		307’			300’	287’	
East 9th / Fruitvale	**366’**	**367’**		4’	**356’**		100’	**363’**		1’	**826’**	
East 8th / Fruitvale	NA			13’	39’	-	NA			14’	**201’**	-

Bold = Queue length exceeds storage length.

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-24
2010 BASELINE CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	AM Peak Hour						PM Peak Hour					
	Northbound			Southbound			Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	150’	40’	-	237’			132’	234’	-	211’		
International/Fruitvale	156’			216’			213’			183’		
San Leandro / Fruitvale	386’			193’	195’		352’			**349’**	**325’**	
East 9th / Fruitvale	**451’**	**459’**		3’	**781’**		**311’**	**401’**		2’	**957’**	
East 8th / Fruitvale	NA			15’	40’	-	NA			17’	**291’**	-

Bold = Queue length exceeds storage length.

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-25
2010 PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	AM Peak Hour						PM Peak Hour					
	Northbound			Southbound			Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	149’	40’	-	240’			126’	223’	-	213’		
International/Fruitvale	157’			213’			216’			189’		
San Leandro / Fruitvale	392’			190’	195’		382’			**351’**	**328’**	
East 9th / Fruitvale	**451’**	**463’**		3’	**786’**		**308’**	**413’**		2’	**957’**	
East 8th / Fruitvale	NA			15’	40’	-	NA			7’	**300’**	-

Bold = Queue length exceeds storage length.

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-26
2025 BASELINE CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	AM Peak Hour						PM Peak Hour					
	Northbound			Southbound			Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	150’	59’	-	**492’**			158’	269’	-	**442’**		
International/Fruitvale	227’			385’			256’			237’		
San Leandro / Fruitvale	**673’**			192’	229’		595’			**320’**	**326’**	
East 9th / Fruitvale	**698’**	**824’**		3’	**1048’**		**431’**	**525’**		11’	**1071’**	
East 8th / Fruitvale	NA			**108’**	65’	-	NA			8’	**300’**	-

Bold = Queue length exceeds storage length.

SOURCE: Korve Engineering and Caltrans (2007)

TABLE IV.C-27
2025 PLUS PROJECT CONDITIONS 95TH PERCENTILE QUEUE LENGTHS

	AM Peak Hour						PM Peak Hour					
	Northbound			Southbound			Northbound			Southbound		
Intersection	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**	**Left**	**Through**	**Right**
East 12th / Fruitvale	150’	59’	-	**495’**			149’	252’	-	**456’**		
International/Fruitvale	235’			391’			261’			247’		
San Leandro / Fruitvale	**678’**			192’	228’		630’			**320’**	**323’**	
East 9th / Fruitvale	**699’**	**831’**		3’	**1072’**		**426’**	**534’**		11’	**1055’**	
East 8th / Fruitvale	NA			**109’**	65’	-	NA			8’	**300’**	-

Bold = Queue length exceeds storage length.

SOURCE: Korve Engineering and Caltrans (2007)

exceeding their storage lengths and grow longer with the addition of the project during both peak hours. At the intersection of East 8th Street at Fruitvale Avenue, southbound left-turn queues exceed the baseline storage in the a.m. peak hour, and southbound through queues exceed the baseline storage in the p.m. peak hour.

In general, the increase in queuing as a result of the addition of project traffic is fairly small. Also, as shown earlier in the Intersection Impacts section, the proposed project would not contribute enough traffic to any of the intersections analyzed along Fruitvale Avenue to meet average delay, critical movement delay, or volume-to-capacity ratio significance thresholds. Project traffic would not represent over five percent of the cumulative growth at any of these intersections. Thus, no improvements would be required to mitigate the project's contribution to queuing.

Evaluation of Project's Proposed Parking Supply

The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.[11] Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the proposed project, wants to ensure that the project's provision of additional parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City's "Transit First" policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area.

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11 San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco (2002) 102 Cal.App.4th 656.

Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the proposed project are considered less than significant.

This EIR evaluates whether the project's estimated parking demand (both project-generated and project-displaced) would be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site. Project-displaced parking results from the project's removal of standard on-street parking, City or Agency owned/controlled parking and/or legally required off-street parking (non-open-to-the-public parking which is legally required).

City Off-Street Parking and Loading Requirements

The proposed parking supply complies with the City's Planning Code requirements for off-street parking. The City's parking requirements are based on the zoning designation for the property. The project site is planned to be located in zone "C-45" (Community Shopping Commercial Zone). According to the City's Planning Code requirement (Title 17 Chapter 17.116), the proposed project would require a total of 843 vehicle parking spaces (see **Table IV.C-28**) and 10 loading spaces (see **Table IV.C-29**). The proposed project would provide 1,121 total parking spaces, and would meet the Parking Planning Code requirements. The proposed project would provide two freight loading spaces as well as non-freight loading areas for small trucks, van, automobile deliveries in each of the buildings, for a total of eight loading spaces. The proposed loading spaces may not meet the Off-Street Loading Requirements of the Oakland Planning Code and therefore may require a variance or other exception to the Zoning Regulations for the facilities as currently proposed.

TABLE IV.C-28
CITY OF OAKLAND OFF-STREET PARKING PLANNING CODE REQUIREMENTS

Land Use	Project Size[a]	Zone Requirement	Requirement at Project Buildout	Proposed Supply[b]
Commercial	30,000	One space for each 900 square feet of floor area	33	65
Condominium / Townhouse	810	One space per dwelling unit	810	1,056
		Total	**843**	**1,121**

[a] Project size expressed in gross square footage, except for Residential (in dwelling units). The 30,000 square feet of commercial land use encompasses the parking required for 25,950 square feet of commercial land use and a 5,000 square-foot community educational facility, as described in the Project Description in Chapter III.

[b] Planned Unit Development (PUD) approval allows the distribution of loading spaces without reference to lot or block lines (Oakland Municipal Code § 17.122.100(F)).

SOURCE: Korve Engineering (2007); City of Oakland, Municipal Code, Chapter 17.116, Off-Street Parking and Loading Requirements

According to the City's Planning Code requirement (Title 17 Chapter 17.116.200), a regular parking space shall not be less than 18 feet long and 8.5 feet wide for all parking patterns except

for parallel parking. A compact parking space shall be not less than 16 feet long and 7.5 feet wide for all parking patterns except for parallel parking.

According to the City's Planning Code requirement (Title 17 Chapter 17.116.210), maneuvering aisles necessary for access into and out of required parking spaces shall have minimum width of 24 feet where parking is at an angle of 90 degrees or less but more than 60 degrees.

Parking Demand

The proposed project's parking demand is estimated by applying parking generation rates taken from the Institute of Transportation Engineers' *Parking Generation* (ITE 3rd Edition, 2004) to the project land uses. According to empirically-collected data, land uses similar in size and type to the proposed project generate a demand for a total of about 1,263 parking spaces (see **Table IV.C-30)**. The total proposed on-site parking supply of 1,131 spaces would not accommodate the estimated demand.

TABLE IV.C-29
CITY OF OAKLAND LOADING PLANNING CODE REQUIREMENTS

Land Use	Project Size (in Square Feet)	Requirement at Project Buildout	Proposed Supply
Site I (Residential)	266,800	2	0
Site II (Residential)	195,766	2	0
Site III (Residential)	141,124	1	0
Site IV (Residential)	124,610	1	0
Site V & VI (Residential)	417,510	2	1
Residential Subtotal	*1,145,810*	*8*	*1*
Site II (Commercial)	2,900	0	0
Site III (Commercial)	2,900	0	0
Site IV (Commercial)	10,700	1	0
Site V & VI (Commercial)	13,500	1	1
Commercial Subtotal	*30,000*	*2*	*1*
	Total	**10**	**2**

SOURCE: Korve Engineering (2007); City of Oakland, Municipal Code, Chapter 17.116, Off-Street Parking and Loading Requirements

Although the calculation of the project's parking demand indicates that the demand would not be fully accommodated by the proposed on-site parking supply, parking demand rates provided by ITE may not accurately reflect the demand for the proposed project. Since the project site lies approximately 1,900 feet from the Fruitvale BART Station, transit usage would be much higher for the project site than for the study sites used by ITE to determine parking demand rates. Also, as noted, the proposed project would meet all City of Oakland off-street parking requirements.

TABLE IV.C-30
ESTIMATED PEAK PROJECT-GENERATED PARKING DEMAND

Land Use	Project Size[a]	Parking Demand Rate	Parking Demand	Proposed Supply	Shortfall
Commercial[b]	30,000	2.65 vehicles per 1,000 sq. ft. GLA	80	65	(15)
Residential Condominium / Townhouse	810	1.46 vehicles per dwelling unit	1,183	1,056	(127)
		Total	**1,263**	**1,121**	**(142)**

a Project size expressed in gross square footage, except for Residential (in dwelling units).
b Land Use: 820; Shopping Center; Monday-Thursday Non-December Peak Period Parking Demand. The 30,000 square feet of commercial land use encompasses the parking demand for 25,950 square feet of commercial land use and a 5,000 square-foot community educational facility, as described in the Project Description in Chapter III.
c Land Use: 230; Residential Condominium/Townhouse.

SOURCE: Korve Engineering; Institute of Transportation Engineers, *Parking Generation* (Third Edition), 2004

For all of these reasons, the project's contribution to cumulative parking impacts would not be significant.

Pedestrian and Bicycle Facilities

Although not required under CEQA or by the City of Oakland's significance criteria, the effects of increased vehicular traffic on pedestrians are assessed as part of the review of the proposed project. Due to the project site's close proximity to several schools and the size of the residential component of this project, pedestrian conditions at the intersection of East 12th Street and 29th Avenue (which would fail in the 2025 plus Project Conditions) would deteriorate in the area and should be improved. Implementation of Recommendations 1 and 2 would result in improved pedestrian conditions at the intersection of East 12th Street and 29th Avenue.

Recommendation 1 *(Pedestrian and Bicycle Facilities)*: The project shall construct City Standard sidewalks at the at-grade railroad crossing on 29th Avenue south of the project site.

Recommendation 2 *(Pedestrian and Bicycle Facilities)*: The project shall construct pedestrian bulb-outs in the northeast and southeast corners of the East 12th Street at 29th Avenue intersection.

The pedestrian bulb-out in the northeast corner would extend approximately eight feet into each roadway (East 12th Street at 29th Avenue). On-street parking spaces would be removed as needed to construct the bulb-outs. Along the northbound approach to this intersection (29th Avenue), roadway width is limited due to the lack of on-street parking. Thus, the bulb-out in the southeast quadrant would only extend into East 12th Street because it would otherwise overlap with the northbound right-turn lane on 29th Avenue. The bulb-outs would increase pedestrian safety and improve the operation of the intersection by decreasing crossing times. The bulb-

outs would not decrease level of service of the intersection due to the presence of on-street parking along the frontage of the proposed project site. Bulb-outs should be constructed based on the City of Oakland's Standard Plans.

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D. Air Quality

This section discusses both the construction and operational impacts of the proposed project on the local and regional air quality. The *Environmental Setting* section provides an overview of the regulatory context, plans, policies, and regulations, followed by regional information about climate and topography and existing baseline air quality conditions. The air pollutants of concern in the San Francisco Bay Area are ozone, carbon monoxide, and particulate matter. In addition, this section describes 1) the level of knowledge currently available regarding potential primary and secondary impacts of greenhouse gas (GHG) emissions, including climate change (and its secondary effects); and 2) presents a qualitative analysis of the proposed project's sources of GHG emissions and of project design features that would avoid or minimize those sources.

Environmental Setting

Regulatory Context for Air Quality

The U.S. Environmental Protection Agency (US EPA) is responsible for implementing the programs established under the federal Clean Air Act, such as establishing and reviewing the federal ambient air quality standards and judging the adequacy of State Implementation Plans (SIP). However, the EPA has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. In California, the California Air Resources Board (CARB) is responsible for establishing and reviewing the state ambient air quality standards, developing and managing the California SIP, securing approval of this plan from US EPA, and identifying toxic air contaminants (TACs). CARB also regulates mobile emissions sources in California, such as construction equipment, trucks, and automobiles, and oversees the activities of air quality management districts, which are organized at the county or regional level. Air quality management districts are primarily responsible for regulating stationary emissions sources at facilities within its geographic areas and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act (see *Air Quality Plans*, below). The Bay Area Air Quality Management District (BAAQMD) is the regional agency with regulatory authority over emissions sources in the Bay Area, which includes all of San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Marin, and Napa counties, the southern half of Sonoma County, and the southwestern half of Solano County.

Criteria Air Pollutants

As required by the federal Clean Air Act passed in 1970, US EPA has identified six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. US EPA calls these pollutants *criteria air pollutants* because the agency has regulated them by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. Ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM), and lead are the six criteria air pollutants.

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_X). ROG and NO_X are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_X under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Ground level ozone in conjunction with suspended particulate matter in the atmosphere leads to hazy conditions generally termed as "smog."

Carbon Monoxide

Carbon monoxide, a colorless and odorless gas is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicles. High carbon monoxide concentrations develop primarily during winter when periods of light wind combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased carbon monoxide emission rates at low air temperatures. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Nitrogen Dioxide

Nitrogen dioxide is an air quality concern because it acts a respiratory irritant and is a precursor of ozone. Nitrogen dioxide is produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit.

Sulfur Dioxide

Sulfur dioxide is a combustion product of sulfur or sulfur-containing fuels such as coal and oil, which are restricted in the Bay Area. Its health effects include breathing problems and it may cause permanent damage to lungs. SO_2 is an ingredient in acid rain (acid aerosols), which can damage trees, lakes, and property. Acid aerosols can also reduce visibility.

Particulate Matter

PM-10 and PM-2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. A micron is one-millionth of a meter, or less than one-25,000th of an inch. For comparison, human hair is 50 microns or larger in diameter. PM-10

and PM-2.5 represent particulate matter of sizes that can be inhaled into the air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of aerosol-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles (PM-2.5) of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed[1] gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility.

PM-10 emissions in the project area are mainly from urban sources, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere. Particulate concentrations near residential sources generally are higher during the winter, when more fireplaces are in use and meteorological conditions prevent the dispersion of directly emitted contaminants.

Lead

Leaded gasoline (currently phased out), paint (houses, cars), smelters (metal refineries), and manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects for which children are at special risk. Some lead-containing chemicals cause cancer in animals.

Some criteria air pollutants are considered regional in nature, some are considered local, and some have characteristics that are both regional and local. Air pollutants are also characterized as "primary" and "secondary" pollutants. Primary pollutants are those emitted directly into the atmosphere (such as carbon monoxide, sulfur dioxide, lead particulates, and hydrogen sulfide). Secondary pollutants are those formed through chemical reactions in the atmosphere; these chemical reactions usually involve primary pollutants, normal constituents of the atmosphere, and other secondary pollutants. O_3 is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_x. ROG and NO_x are known as precursor compounds for O_3. O_3 is a regional air pollutant because its precursors are transported and diffused by wind concurrently with O_3 production.

Ambient CO concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence CO concentrations. Under inversion conditions, CO concentrations may be distributed more uniformly over an area out to some distance from vehicular sources.

Ambient Air Quality Standards

Regulation of criteria air pollutants is achieved through both national and state ambient air quality standards and emissions limits for individual sources. Regulations implementing the federal Clean Air Act and its subsequent amendments established national ambient air quality standards (national standards) for the six criteria pollutants. California has adopted more stringent state

[1] "Adsorption" is a process that occurs when a gas or liquid accumulates on the surface of a solid and forms a film.

ambient air quality standards for most of the criteria air pollutants. In addition, California has established state ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Because of the unique meteorological problems in the state, there is considerable diversity between state and federal standards currently in effect in California, as shown in **Table IV.D-1**. The table also summarizes the related health effects and principal sources for each pollutant.

The ambient air quality standards are intended to protect the public health and welfare, and they incorporate an adequate margin of safety. They are designed to protect those segments of the public most susceptible to respiratory distress, known as sensitive receptors, including asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels somewhat above the ambient air quality standards before adverse health effects are observed.

Attainment Status

Under amendments to the federal Clean Air Act, US EPA has classified air basins or portions thereof, as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the national standards have been achieved. The California Clean Air Act, which is patterned after the federal Clean Air Act, also requires areas to be designated as "attainment" or "nonattainment" for the state standards. Thus, areas in California have two sets of attainment / nonattainment designations: one set with respect to the national standards and one set with respect to the state standards.

The Bay Area is currently designated "nonattainment" for state and national (1 hour and 8 hour) ozone standards and for the state PM-10 and PM-2.5 standards. The Bay Area is designated "attainment" or "unclassified" with respect to the other ambient air quality standards. **Table IV.D-1** also shows the attainment status of the Bay Area with respect to the national and state ambient air quality standards for different criteria pollutants.

Air Quality Plans

The 1977 Clean Air Act Amendments require that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards specified in the Clean Air Act. The 1988 California Clean Air Act also requires development of air quality plans and strategies to meet state air quality standards in areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM standards). Maintenance plans are required for attainment areas that had previously been designated nonattainment in order to ensure continued attainment of the standards. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans.

TABLE IV.D-1
AMBIENT AIR QUALITY STANDARDS AND BAY AREA ATTAINMENT STATUS

Pollutant	Averaging Time	State Standard	Bay Area Attainment Status for California Standard	Federal Primary Standard	Bay Area Attainment Status for Federal Standard	Major Pollutant Sources
Ozone	8 hour	0.07 ppm	Unclassified	0.08 ppm	Non-Attainment	Motor vehicles, Other mobile sources, combustion, industrial and commercial processes
	1 hour	0.09 ppm	Non-Attainment	---	---	
Carbon Monoxide	8 hour	9.0 ppm	Attainment	9 ppm	Attainment	Internal combustion engines, primarily gasoline-powered motor vehicles
	1 Hour	20 ppm	Attainment	35 ppm	Attainment	
Nitrogen Dioxide	Annual Average	0.03 ppm	---	0.053 ppm	Attainment	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads
	1 Hour	0.18 ppm	Attainment	---	---	
Sulfur Dioxide	Annual Average	---	---	0.03 ppm	Attainment	Fuel combustion, chemical plants, sulfur recovery plants and metal processing
	24 Hour	0.04 ppm	Attainment	0.14 ppm	Attainment	
	1 Hour	0.25 ppm	Attainment	---	---	
Particulate Matter (PM-10)	Annual Arithmetic Mean	20 $\mu g/m^3$	Non-Attainment	---	---	Dust- and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays)
	24 hour	50 $\mu g/m^3$	Non-Attainment	150 $\mu g/m^3$	Unclassified	
Particulate Matter (PM2.5)	Annual Arithmetic Mean	12 $\mu g/m^3$	Non-Attainment	15 $\mu g/m^3$	Attainment	Same as above
	24 hour	---	---	35 $\mu g/m^3$	Unclassified	
Lead	Calendar Quarter	---	---	1.5 $\mu g/m^3$	Attainment	Lead smelters, battery manufacturing & recycling facilities
	30 Day Average	1.5 $\mu g/m^3$	Attainment	---	---	

ppm = parts per million; and $\mu g/m^3$ = micrograms per cubic meter

SOURCE: BAAQMD, 2007, CARB, 2007b.

Bay Area plans are prepared with the cooperation of the Metropolitan Transportation Commission (MTC), and the Association of Bay Area Governments (ABAG). Currently, there are three plans for the Bay Area, These are:

- The *Ozone Attainment Plan for the 1-Hour National Ozone Standard* (ABAG, 2001) developed to meet federal ozone air quality planning requirements

- The recently adopted *Bay Area 2005 Ozone Strategy* (BAAQMD, 2006) developed to meet planning requirements related to the state ozone standard; and

- The *1996 Carbon Monoxide Redesignation Request and Maintenance Plan for Ten Federal Planning Areas*, developed by the air districts with jurisdiction over the ten planning areas including the BAAQMD to ensure continued attainment of the federal carbon monoxide standard. In June 1998, the EPA approved this plan and designated the ten areas as attainment. The maintenance plan was revised most recently in 2004.

The Bay Area 2001 Ozone Attainment Plan was prepared as a proposed revision to the Bay Area part of California's plan to achieve the national ozone standard. The plan was prepared in response to US EPA's partial approval and partial disapproval of the Bay Area's 1999 Ozone Attainment Plan and finding of failure to attain the national ambient air quality standard for ozone. The Revised Plan was adopted by the Boards of the co-lead agencies at a public meeting and approved by the CARB in 2001. In July 2003, US EPA approved the Plan. US EPA also made an interim final determination that the Plan corrects deficiencies identified in the 1999 Plan. Following three years of low ozone levels (2001, 2002 and 2003), in October 2003, EPA proposed a finding that the Bay Area had attained the national one-hour standard and that certain elements of the 2001 Plan (attainment demonstration, contingency measures and reasonable further progress) were no longer required. In April 2004, US EPA made final the finding that the Bay Area had attained the one-hour standard and approved the remaining applicable elements of the 2001 Plan: emissions inventory; control measure commitments; motor vehicle emission budgets; reasonably available control measures; and commitments to further study measures.

US EPA recently transitioned from the national one-hour standard to a more health protective 8-hour standard. Defined as "concentration-based," the new national ozone standard is set at 85 parts per billion averaged over eight hours. The new national 8-hour standard is considered to be more health protective because it protects against health effects that occur with longer exposure to lower ozone concentrations. In April 2004, US EPA designated regions as attainment and nonattainment areas for the 8-hour standard. These designations took effect on June 15, 2004. US EPA formally designated the Bay Area as a nonattainment area for the national 8-hour ozone standard, and classified the region as "marginal" according to five classes of nonattainment areas for ozone, which range from marginal to extreme. Marginal nonattainment areas must attain the national 8-hour ozone standard by June 15, 2007. While certain elements of Phase 1 of the 8-hour implementation rule are still undergoing legal challenge, US EPA signed Phase 2 of the 8-hour implementation rule on November 9, 2005. It is not currently anticipated that marginal areas will be required to prepare attainment demonstrations for the 8-hour standard. Other planning elements may be required. The Bay Area plans to address all requirements of the national 8-hour standard in subsequent documents.

For state air quality planning purposes, the Bay Area is classified as a serious non-attainment area for ozone. The "serious" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan (CAP) every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The Bay Area's record of progress in implementing previous measures must also be reviewed. On January 4, 2006, the BAAQMD adopted the most recent revision to the CAP - the Bay Area 2005 Ozone Strategy. The control strategy for the 2005 Ozone Strategy is to implement all feasible measures on an expeditious schedule in order to reduce emissions of ozone precursors and consequently reduce ozone levels in the Bay Area and reduce transport to downwind regions.

In April 2005, CARB established a new eight-hour average ozone standard of 0.070 ppm, which became effective on May 17, 2006. CARB is currently working on designations and implementation guidance for the new standard. The one-hour state standard has been retained. The San Francisco Bay Area has not attained the state eight-hour standards and will be taking action as necessary to address those standards once the planning requirements have been established.

Toxic Air Contaminants

The Health and Safety Code defines TACs as air pollutants which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. TACs are less pervasive in the urban atmosphere than criteria air pollutants, but are linked to short-term (acute) or long-term (chronic and/or carcinogenic) adverse human health effects. There are hundreds of different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust. The current list of TACs includes approximately 200 compounds, including all of the toxics identified under federal law plus additional compounds, such as particulate emissions from diesel-fueled engines, which was added in 1998. Unlike regulations concerning criteria air pollutants, there are no ambient air quality standards for evaluating TACs. Instead, TAC emissions are evaluated based on the degree of health risk that could result from exposure to these pollutants. According to the BAAQMD, the local agency governing air quality issues in the Bay Area, diesel exhaust emissions pose the greatest degree of health risk to residents in the Bay Area.

Regulation of TACs is achieved through federal and state controls on individual sources.[2]

TACs have been regulated under federal air quality law since the 1977 federal Clean Air Act Amendments. The most recent federal Clean Air Act Amendments (1990) reflect a technology-based approach for reducing TACs. The first phase involves requiring facilities to install Maximum Achievable Control Technology (MACT). The MACT standards vary depending on

[2] Federal environmental laws refer to "hazardous air pollutants," while California environmental laws refer to "toxic air contaminants." Both of these terms basically encompass the same constituent toxic compounds.

the type of emitting source. US EPA has established MACT standards for over 20 facilities or activities, such as perchloroethylene dry cleaning and petroleum refineries. The second phase of control involves determining the residual health risk represented by air toxics emissions sources after implementation of MACT standards.

Two principal laws provide the foundation for state regulation of TACs from stationary sources. In 1983, the State Legislature adopted Assembly Bill 1807, which established a process for identifying TACs and provided the authority for developing retrofit air toxics control measures on a statewide basis. Air toxics from stationary sources in California are also regulated under Assembly Bill 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under Assembly Bill 2588, TAC emissions from individual facilities are quantified and prioritized by the regional air quality management district or county air pollution control district. High priority facilities are required to perform a health risk assessment, and if specific thresholds are violated, they are required to communicate the results to the public in the form of notices and public meetings. Depending on the risk level, emitting facilities can be required to implement varying levels of risk reduction measures.

Locally, the BAAQMD administers the Bay Area's Toxic Air Contaminant Control Program, which is intended to reduce public exposure to TACs from stationary sources in the Bay Area. BAAQMD is currently working to control TAC impacts at local "hot spots" and to reduce TAC background concentrations. The control strategy involves reviewing new stationary sources to ensure compliance with required emissions controls and limits, maintaining an inventory of existing stationary sources of TACs, and developing new rules and regulations to reduce TAC emissions.

Regulation of TACs from mobile sources has traditionally been implemented through emissions standards for on-road motor vehicles (imposed on vehicle manufacturers) and through specifications for gasoline and diesel fuel sold in California (imposed on fuel refineries and retailers), rather than through land use decisions, air quality permits, or regulations addressing how motor vehicles are used by the general public.

Local Standards for Air Quality

BAAQMD Rules and Regulations

The BAAQMD is the regional agency responsible for rulemaking, permitting and enforcement activities affecting stationary sources in the Bay Area. Specific rules and regulations adopted by the BAAQMD limit the emissions that can be generated by various uses and/or activities, and identify specific pollution reduction measures that must be implemented in association with various uses and activities. These rules regulate not only emissions of the six criteria air pollutants, but also toxic emissions and acutely hazardous non-radioactive materials emissions.

Emissions sources subject to these rules are regulated through the BAAQMD's permitting process and standards of operation. Through this permitting process, including an annual permit review, the BAAQMD monitors generation of stationary emissions and uses this information in developing its air quality plans. Any sources of stationary emissions constructed as part of the

proposed project would be subject to the BAAQMD *Rules and Regulations*. Both federal and state ozone plans rely heavily upon stationary source control measures set forth in BAAQMD's *Rules and Regulations.*

City of Oakland General Plan

The Open Space, Conservation, and Recreation Element (OSCAR) of the *Oakland General Plan* (Oakland, 1996) contains the following Air Quality objective and policies that would apply to the proposed project.

- To improve air quality in Oakland and the surrounding Bay Region. *(Objective 1)*
- Promote land use patterns and densities which help improve regional air quality conditions. The City supports efforts of the responsible public agencies to reduce air pollution. *(Policy CO-12.1)*
- Require that development projects be designed in a manner which reduces potential adverse air quality impacts. *(Policy CO-12.4)*

Oakland Zoning Regulations

The Oakland Zoning Regulations contain no provisions specific to air quality.

Regulatory Context for GHG Emissions and Climate Change

International and Federal

Kyoto Protocol

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008–2012. It should be noted that although the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments.

Climate Change Technology Program

The United States has opted for a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (which is led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative. (CCTP, 2006)

U.S. Environmental Protection Agency (US EPA)

To date, the US EPA has not regulated GHGs under the Clean Air Act (discussed above) based on the assertion that the "Clean Air Act does not authorize it to issue mandatory regulations to address global climate change and that it would be unwise to regulate GHG emissions because a causal link between GHGes and the increase in global surface air temperatures has not been unequivocally established." However, the U.S. Supreme Court in *Massachusetts v. EPA* (April 2, 2007) recently held that the US EPA can, and should, consider regulating motor-vehicle GHG emissions.

State of California

Assembly Bill (AB) 1493

On July 1, 2002, the California Assembly passed Assembly Bill (AB) 1493 (signed into law on July 22, 2002), requiring the CARB to "adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." The regulations were to be adopted by January 1, 2005, and apply to 2009 and later model-year vehicles. In September 2004, CARB responded by adopting "CO_2-equivalent fleet average emission" standards. The standards will be phased in from 2009 to 2016, reducing emissions by 22% in the "near term" (2009–2012) and 30 percent in the "mid term" (2013–2016), as compared to 2002 fleets.

Executive Order (EO) S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. This EO provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels. The Secretary of the California Environmental Protection Agency (CalEPA) is charged with coordinating oversight of efforts to meet these targets and formed the Climate Action Team (CAT) to carry out the EO. Several of the programs developed by the CAT to meet the emission targets are relevant to residential construction and are outlined in a March 2006 report.(CalEPA 2006a) These include anti-idling of certain classes of construction vehicles; provision of recycling facilities within residential buildings and communities; compliance with the Energy Commission's building and appliance energy efficiency standards; compliance with California's Green Buildings and Solar initiatives; and implementation of water-saving technologies and features.

California Assembly Bill 32 (AB 32)

On August 31, 2006, the California Assembly passed Bill 32 (AB 32) (signed into law on September 27, 2006), the California Global Warming Solutions Act of 2006. AB 32 commits California to reduce GHG emissions to 1990 levels and establishes a multi-year regulatory process under the jurisdiction of the CARB to establish regulations to achieve these goals. CARB must adopt such regulations by January 1, 2008. The regulations shall required monitoring and annual reporting of GHG emissions from selected sectors or categories of emitters of GHGs. By January 1, 2008, CARB also is required to adopt, a statewide GHG emissions limit equivalent to the statewide GHG emissions levels in 1990, which must be achieved by 2020. By January 1,

2011, CARB is required to adopt rules and regulations, which shall become operative January 1, 2012) to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

On April 20, 2007, CARB published *Proposed Early Actions to Mitigate Climate Change in California.*(CalEPA 2007) There are no early action measures specific to residential development included in the list of 36 measures identified for CARB to pursue during calendar years 2007, 2008, and 2009. Also, this publication indicated that the issue of GHG emissions in CEQA and General Plans was being deferred for later action, so the publication did not discuss any early action measures generally related to CEQA or to land use decisions. As noted in that report: "AB 32 requires that all GHG reduction measures adopted and implemented by the Air Resources Board be technologically feasible and cost effective."(CalEPA 2007) The law permits the use of market-based compliance mechanisms to achieve those reductions and also requires that GHG measures have neither negative impacts on conventional pollutant controls nor any disproportionate socioeconomic effects (among other criteria).

As of publication of this Draft EIR, there has been no guidance from CARB or other agencies on the relation between AB 32 and CEQA, or on whether or how GHG emissions should be evaluated in EIRs. AB 32 also requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts.

California Senate Bill 1368 (SB 1368)

On August 31, 2006, the California Senate passed SB 1368 (signed into law on September 29, 2006), which requires the Public Utilities Commission (PUC) to develop and adopt a "greenhouse gases emission performance standard" by February 1, 2007, for the private electric utilities under its regulation. The PUC adopted an interim standard on January 25, 2007, but has formally requested a delay until September 30, 2007, for the local publicly-owned electric utilities under its regulation These standards apply to all long-term financial commitments entered into by electric utilities.(California SB 2006) The California Energy Commission (CEC) was required to adopt a consistent standard by June 30, 2007. However, this date was missed, and CEC will address the concerns of the Office of Administrative Law (OAL) and resubmit the rulemaking as soon as possible. The rulemaking then must be approved by the OAL before it can take effect (Collord, 2007).

As noted above, the California Urban Water Management Planning Act requires various water purveyors throughout the State of California to prepare UWMPs, which assess the purveyor's water supplies and demands over a 20-year horizon.(California Water Code, Section 10631 *et seq*.) As required by that statute, UWMPs are updated by the purveyors every five years.

City of Oakland Local Plan and Policies Relevant to GHG Emissions and Climate Change

City of Oakland General Plan

Land Use and Transportation Element (LUTE)

The LUTE (which includes the Pedestrian Master Plan and Bicycle Master Plan) of the Oakland General Plan contains the following policies that address issues related to GHG Emissions and Climate Change:

- Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail. *(Policy T.2.1)*

- Transit-oriented developments should be pedestrian oriented, encourage nigh and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods. *(Policy T.2.2)*

- The City should include bikeways and pedestrian ways in the planning of new, reconstructed, or realigned streets, wherever possible. *(Policy T3.5)*

- The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit street" as shown on the Transportation Plan. *(Policy T3.6)*

- Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options. *(Policy T4.2)*

- In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland. *(Policy N3.2)*

- The City should prepare, adopt, and implement a Bicycle and Pedestrian Master Plan as a part of the Transportation Element of [the] General Plan. *(Policy T4.5)*

Open Space, Conservation and Recreation Element

- Conserve existing City and Regional Parks characterized by steep slopes, large groundwater recharge areas, native plant and animal communities, extreme fire hazards, or similar conditions. *(Policy OS-1.1)*

- Manage Oakland's urban parks to protect and enhance their open space character while accommodating a wide range of outdoor recreational activities. (Policy OS-2.1)

- Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program. *(Policy CO-5.3)*

- Promote land use patterns and densities which help improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development,

mixed use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (s) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis. *(Policy CO-12.1)*

- Expanding existing transportation systems management and transportation demand management strategies which reduce congestion, vehicle idling, and travel in single passenger autos. *(Policy CO-12.3)*

- Require that development projects be designed in a manner which reduced potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb carbon monoxide and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; (c) designs which encourage transit use and facilitate bicycle and pedestrian travel. *(Policy CO-12.4)*

- Require new industry to use best available control technology to remove pollutants, including filtering, washing, nor electrostatic treatment of emissions. *(Policy CO-12.5)*

- Support public information campaigns, energy audits, the use of energy-saving appliances and vehicle, and other efforts which help Oakland residents, business, and City operations become more efficient. *(Policy CO-13.2)*

- Encourage the use of energy-efficient constriction and building material. Encourage site plans for new development which maximize energy efficiency. *(Policy CO-13.3)*

- Accommodate the development and use of alternative energy resources, including solar energy and technologies which convert waste or industrial byproducts to energy, provided that such activities are compatible with surrounding land uses and regional air and water quality requirements. *(Policy CO-13.4)*

Historic Preservation Element (HPE)

- Property relocation rather than demolition as part of discretionary permits – As a condition of approval for all discretionary projects involving demolition of existing or Potential Designated Historic Properties, the City will normally require that reasonable efforts be made to relocate the properties to an acceptable site. *(HPE Policy 3.7)*

Safety Element

- Prioritize the reduction of the wildfire hazard, with an emphasis on prevention. *(Policy FI-3)*

- Enforce and update local ordinance and comply with regional orders that would reduce the risk of storm-induced flooding. *(Policy FL-1)*

- Continue or strengthen city programs that seek to minimize the storm-induced flooding. *(Policy FL-2)*

City of Oakland Sustainability Programs

Oakland's sustainability efforts are managed by the Oakland Sustainability Community Development Initiative (SDI), created in 1998 (Ordinance 74678 C.M.S.). Efforts are organized into the following six major categories: Energy; Urban Design; Transportation; Waste Reduction; Water; and Environmental Health. Initiatives relevant to climate change and global warming are summarized below (City of Oakland, 2007):

- Chicago Climate Exchange - The City's Climate Protection program includes a March 2005 Council adoption of Chicago Climate Exchange Resolution (No. 79135 C.M.S.). The Chicago Climate Exchange (CCX) is a voluntary but legally binding system to reduce carbon dioxide emissions. Members agreed to reduce their emissions 1 percent per year from 2003-2006 below their baseline average. If the 1 percent reduction was not met, the City would be required to purchase GHG allowances from others in the Exchange; if the City exceeded this reduction, the additional earned GHG emission allowances could then be sold on the Exchange. Oakland met its obligated targets for period 2003-2004, but exceeded its obligated targets for 2004-2005 and 2005-2006.

- Community Choice Aggregation - Oakland has funded a Phase I feasibility study and a Phase II Implementation Plan to become a community choice aggregator, which would allow the City to purchase electricity on behalf of their residential and commercial constituents. Potential benefits of becoming an aggregator include increased use of renewable energy sources to meet Oakland's energy needs and a reduction in electricity costs.

- Energy Efficiency Participation - The City of Oakland has promoted energy efficiency with the following programs: Community Youth Energy Services (CYES), which hires and trains local youth to provide free in-home energy audits, education, and hardware installation to low income residents; CA-Leadership in Energy Efficiency Program (CA-LEEP), a CPUC-funded program which will help Oakland develop the energy efficiency component of the City's overall Sustainability Plan, positioning the City for funding from state and federal sources; the LED Christmas Light Project, a PG&E co-sponsored holiday light exchange, promoting energy efficiency and public outreach; and Savings by Design Lead Incentive Pilot, in which PG&E and the City collaborate to foster energy efficient building designs in new commercial and mixed use construction and major renovation projects.

- Renewable Energy - The City's Sustainability Program has set a priority of promoting renewable energy with a particular emphasis on solar. Aggressive renewable energy goals have been established, including: 50 percent of the city's entire electricity use from renewable sources by 2017; and 100 percent of the city's entire electricity use from renewable sources by 2030.

- Green Building - The City of Oakland has implemented Green Building principles in City buildings through the following programs: Civic Green Building Ordinance (Ordinance No. 12658 C.M.S., 2005), requiring, for certain large civic projects, techniques that minimize the environmental and health impacts of the built environment through energy, water and material efficiencies and improved indoor air quality, while also reducing the waste associated with construction, maintenance and remodeling over the life of the building; Green Building Guidelines (Resolution No. 79871, 2006) which provides

guidelines to Alameda County residents and developers regarding construction and remodeling; and Green Building Education Incentives for private developers.

- Green Economy, Business and Jobs / Green Business - The Alameda County Green Business Program offers technical assistance and incentives to businesses and agencies wishing to go beyond basic regulatory requirements. Socially Responsible Business Checklists: The Socially Responsible Business Task Force created a checklist designed to measure the relative level of social and environmental responsibility of firms nominated to receive major financial assistance from the City.

- Downtown Housing - The 10K Downtown Housing Initiative has a goal of attracting 10,000 new residents to downtown Oakland by encouraging the development of 6,000 market-rate housing units. This effort is consistent with Smart Growth principles.

- Clean Vehicles - In 2003, a "Green Fleet" Resolution established "Green Fleet" policies and procedures to reduce GHG emissions and improve air quality in the City of Oakland, and to increase the energy efficiency of the city's fleet.

- Port of Oakland Truck Replacement - Under the Truck Replacement Project, the Port provides a qualifying truck owner up to $40,000 to replace the on-road heavy-duty diesel truck, which serves the Port's Maritime Area, with a 1999 or newer model year truck. The Port will provide up to $2 million in total funding to replace approximately 80 trucks.

- Waste Reduction and Recycling - The City of Oakland has implemented the following changes:

  - *Residential Recycling*, in which yard trimmings and food waste collections were increased, with total yard trimming increases of 46 percent compared to 2004, and recycling tonnage increased by 37 percent;

  - *Business Recycling*, in which the City provides free technical assistance to Oakland businesses to start or expand their recycling programs and which includes the StopWaste Partnership program which improves environmental performance for businesses and agencies; and

  - *Construction and Demolition Recycling*, for which the City passed a resolution in July 2000 (Ordinance 12253. OMC Chapter 15.34), requiring certain nonresidential or apartment house projects to recycle 100 percent of all Asphalt & Concrete (A/C) materials and 65 percent of all other materials.

- Polystyrene Foam Ban Ordinance - In June 2006, the Oakland City Council passed the Green Food Service Ware Ordinance (Ordinance 14727, effective as of January 1, 2007), which prohibits the use of polystyrene foam disposable food service ware and requires, when cost neutral, the use of biodegradable or compostable disposable food service ware by food vendors and City facilities.

- Zero Waste Resolution - In March 2006 the Oakland City Council adopted a Zero Waste Goal by 2020 Resolution (Resolution 79774 C.M.S.), and commissioned the creation of a Zero Waste Strategic Plan to achieve the goal.

- Stormwater Management - On February 19, 2003, the Regional Water Quality Control Board, San Francisco Bay Region, issued a municipal stormwater permit under the

National Pollutant Discharge Elimination System (NPDES) permit program to the Alameda Countywide Clean Water Program (ACCWP). The purpose of the permit is to reduce the discharge of pollutants in stormwater to the maximum extent practicable and to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses. The City of Oakland, as a member of the ACCWP, is a co-permittee under the ACCWP's permit and is, therefore, subject to the permit requirements.

Provision C.3 of the NPDES permit is the section of the permit containing stormwater pollution management requirements for new development and redevelopment projects. Among other things, Provision C.3 requires that certain new development and redevelopment projects incorporate post-construction stormwater pollution management measures, including stormwater treatment measures, stormwater site design measures, and source control measures, to reduce stormwater pollution after the construction of the project. These requirements are in addition to standard stormwater-related best management practices (BMPs) required during construction.

- Watershed Improvement - The City of Oakland, by implementing the Watershed Improvement Program has made environmental protection of creeks a priority. The City of Oakland, along with the other cities in the county, is a member of the Alameda Countywide Clean Water Program (ACCWP). ACCWP acts to limit stormwater runoff pollution and to keep creeks and the Bay healthy.

- Healthy Food Systems - The Mayor's office, working with graduate students from the University of California, developed a resolution authorizing an initial food systems assessment study. The study, authorized by the City Council on January 17, 2006 through Resolution No. 79680 C.M.S., examines current trends in Oakland's food system and recommends programs and policies that promote a sustainable food system for Oakland.

- Community Gardens and Farmer's Markets - Community Gardening locations include Arroyo Viejo, Bella Vista, Bushrod, Golden Gate, Lakeside Horticultural Center, Marston Campbell, Temescal, and Verdese Carter. Weekly Farmer's Markets at the Jack London Square, Old Oakland, Grand Lake, Mandela, and Temescal districts. Both efforts promote and facilitate the principal of growing and purchasing locally.

Physical Setting for Air Quality

Climate and Meteorology

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The project site is located in the City of Oakland and is within the boundaries of the San Francisco Bay Area Air Basin (Bay Area). The Bay Area Air Basin encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin and Napa counties, and the southern portions of Solano and Sonoma counties. The climate of the Bay Area is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the West Coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, emissions generated within the Bay Area can combine with abundant sunshine

under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as nitrates and sulfates.

More specifically, the site lies approximately 2 miles east of San Francisco Bay in the Northern Alameda and Western Contra Costa Counties climatological subregion. This subregion stretches from Richmond to San Leandro with San Francisco Bay as its western boundary and its eastern boundary defined by the Oakland-Berkeley Hills. In this area, marine air traveling through the Golden Gate, as well as across San Francisco and the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which causes diminished wind speeds. However, the air pollution potential in this subregion is relatively low for portions close to the Bay, due to the largely good ventilation and less influx of pollutants from upwind sources (BAAQMD, 1999). Yet, during summer and fall, emissions generated within, and those transported to, the East Bay can combine with abundant sunshine under the restraining influences of topography and temperature inversions to create conditions that are conducive to the formation of photochemical pollutants, like ozone.

Wind measurements taken at Metropolitan Oakland International Airport indicate that the predominant wind flow is out of the west-northwest. Northwest winds occur approximately 46 percent of the time. Average wind speeds vary from season to season with the strongest average winds occurring during summer and the lightest average winds during winter. Average wind speeds are 9.7 miles per hour (mph) during summer and 7.4 mph during winter. Temperatures in Oakland average 58 ^{o}F annually, ranging from an average of 40^{o}F on winter mornings to the mid-70s in the late summer afternoons. Daily and seasonal oscillations of temperature are small because of the moderating effects of the nearby ocean. In contrast to the steady temperature regime, rainfall is highly variable and confined almost exclusively to the "rainy" period from early November to mid-April. Oakland averages 18 inches of precipitation annually, but because much of the area's rainfall is derived from the fringes of mid-latitude storms, a shift in the annual storm track of a few hundred miles can mean the difference between a very wet year and near drought conditions.

Existing Air Quality

Criteria Air Pollutants

The BAAQMD operates a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants. Existing and probable future levels of air quality in Oakland can generally be inferred from ambient air quality measurements conducted by the BAAQMD at its nearby monitoring stations. The Alice Street station in Oakland is nearest to the project site (located approximately 2.5 miles to the northwest) and can be considered to be representative of the air quality in the vicinity of the project site. This station monitors ozone and carbon monoxide. **Table IV.D-2** shows a five-year summary of monitoring data for ozone and carbon monoxide from the Alice Street station. The table also compares these measured concentrations with state and federal ambient air quality standards. There is no BAAQMD or CARB station that monitors PM concentrations that can be considered to be representative of concentrations in the

project area. The Port of Oakland conducted an air quality and meteorological monitoring program in West Oakland from 1997 to 2004. The program was designed to collect baseline data on particulate air pollution in the West Oakland area prior to and during construction and operation of the Port maritime development projects, and to help evaluate the effectiveness of its mitigation programs. The program measured PM-10 and PM2.5 concentrations at two locations - one location was in the vicinity of Port facilities and construction activities, and another location in the West Oakland residential neighborhood east (downwind) of Port facilities. **Table IV.D-2** also shows PM-10 and PM-2.5 data from these locations and compares them to the state and national standards. **Table IV.D-3** shows trends in regional exceedances of the federal and state ozone standards. Because of the number of exceedances, ozone is the pollutant of greatest concern in the Bay Area. Bay Area counties experience most ozone exceedances during the period from April through October.

In contrast to some areas of the Bay Area Air Basin, air quality in Oakland generally meets clean air standards on most days. While the meteorology is generally favorable for maintaining good air quality, the Oakland area, along with other portions of the Bay Area that make up the central urban area (i.e., Berkeley-Oakland-San Francisco), is often considered a source region for some pollutants that contribute to elevated concentration levels in downwind communities, such as the Livermore Valley. This is especially the case with mobile or transportation sources.

Motor vehicle transportation, including automobiles, trucks, transit buses, and other modes of transportation, is the major contributor to regional air pollution. Stationary sources were once important contributors to both regional and local pollution. Their role has been substantially reduced in recent years by pollution control programs, such as those of the BAAQMD. Any further progress in air quality improvement now focuses heavily on transportation sources.

Based on the data shown in **Table IV.D-2**, there have been no exceedances of the state and the federal one-hour ozone standards in the project vicinity over the last five years. The principal sources of ozone precursors ROG and NO_x in the Bay Area include on-road motor vehicles (approximately 39 percent for ROG and 52 percent for NO_x), other mobile sources (approximately 17 percent for ROG and 34 percent for NO_x), solvent evaporation (approximately 20 percent for ROG), fuel combustion (approximately 9 percent NO_x) and oil and gas production (approximately 9 percent for ROG). Bay Area emissions of the ozone precursors ROG and NO_x are expected to decrease by approximately 24 and 36 percent, respectively, between 2005 and 2020 (CARB, 2007c) largely as a result of the State's on-road motor vehicle emission control program. The Bay Area has a significant motor vehicle population and these reductions are projected as vehicles meeting more stringent emission standards enter the fleet, and all vehicles use cleaner burning gasoline and diesel fuel or alternative fuels. This includes the use of improved evaporative emission control systems, computerized fuel injection, engine management systems to meet increasingly stringent California emission standards, cleaner gasoline, and the Smog Check program. ROG and NO_x emissions from other mobile sources and stationary sources are also projected to decline as more stringent emission standards and control technologies are adopted and implemented.

TABLE IV.D-2
AIR QUALITY DATA SUMMARY (2001–2005) FOR THE PROJECT AREA

Pollutant	Standard[b]	Monitoring Data by Year				
		2001	2002	2003	2004	2005
Ozone [a]						
Highest 1 Hour Average (ppm) [c]		0.07	0.05	0.08	0.08	0.07
Days over State Standard	0.09	0	0	0	0	0
Days over National Standard	0.12	0	0	0	0	0
Highest 8 Hour Average (ppm) [c]		0.04	0.04	0.05	0.06	0.05
Days over National Standard	0.08	0	0	0	0	0
Carbon Monoxide [a]						
Highest 1 Hour Average (ppm) [c]		5.0	4.4	3.9	3.5	NA
Days over State Standard	20	0	0	0	0	0
Days over National Standard	35	0	0	0	0	0
Highest 8 Hour Average (ppm) [c]		4.0	3.3	2.8	2.6	2.4
Days over State/National Standard	9.0	0	0	0	0	0
Particulate Matter (PM-10) [e]						
Highest 24 Hour Average ($\mu g/m^3$) [c]		83.0	110.5	49.9	48.0	NA
Number of sampled days [d]		62	61	61	61	NA
Sampled days over State Standard [d]	50	10	5	0	0	NA
Sampled days over National Standard [d]	150	0	0	0	0	NA
Particulate Matter (PM-2.5) [e]						
Highest 24-Hour Average – National (ppm) [c]Highest 8-hour average, ppm[c]	65	44.9	45.4	29.9	31.0	NA
Sampled days over National Standard [d]		0	0	0	0	NA

a Data are from BAAQMD's Alice Street station in Oakland.
b Generally, state standards are not to be exceeded and federal standards are not to be exceeded more than once per year.
c ppm = parts per million; g/m^3 = micrograms per cubic meter.
d PM-10 and PM-2.5 are not measured every day of the year. "Number of samples" refers to the number of days in a given year during which PM-10 and PM-2.5 were measured at the Port of Oakland monitoring stations.
e Combined data from the Port and residential monitoring stations are presented.

NA = Not Available.

SOURCE: CARB, 2007b.

Table IV.D-2 shows that there have been no exceedances of state and federal ambient carbon monoxide standards at the Alice Street station in Oakland in the last five years. Based on BAAQMD carbon monoxide isopleth maps, 2006 background carbon monoxide concentrations in the project vicinity are approximately 5 parts per million, one-hour average, and 3 parts per million, eight-hour average (BAAQMD, 1999). Currently, on-road motor vehicles are responsible for approximately 69 percent of the carbon monoxide emitted within the San Francisco Bay Area

TABLE IV.D-3
SUMMARY OF OZONE DATA FOR THE SAN FRANCISCO BAY AREA AIR BASIN, 1996 - 2005

	Number of Days Standard Exceeded[a]			Ozone Concentrations in ppm[b]	
Year	State 1-hr	Federal 1-hr	Federal 8-hr	Maximum 1-hr	Maximum 8-hr
2005	9	0	1	0.12	0.09
2004	7	0	0	0.11	0.084
2003	19	1	7	0.13	0.101
2002	16	2	7	0.16	0.106
2001	15	1	7	0.13	0.100
2000	12	3	9	0.15	0.144
1999	20	3	4	0.16	0.122
1998	29	8	16	0.15	0.111
1997	8	0	0	0.11	0.084
1996	34	8	14	0.14	0.112
1995	28	11	18	0.16	0.115

[a] This table summarizes the data from all of the monitoring stations within the Bay Area.
[b] ppm = parts per million.

SOURCE: CARB, 2007c.

and in Alameda County (CARB, 2007c). Carbon monoxide emissions are expected to decrease within the county by approximately 42 percent between 2005 and 2020 due to attrition of older, high polluting vehicles, improvements in the overall automobile fleet, and improved fuel mixtures (CARB, 2007c).

Based on data shown in **Table IV.D-2**, state PM-10 standards have been exceeded at the Port of Oakland monitoring stations on a frequent basis during the years 2000 through 2002, after which there have been no exceedances of the standard. The PM-2.5 and the national PM-10 standard have not been exceeded over the last five years. Generally, contributors to PM concentrations in the project area are primarily urban sources, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere. Particulate concentrations near residential sources generally are higher during the winter, when more fireplaces are in use and meteorological conditions prevent the dispersion of directly emitted contaminants. Direct PM-10 emissions in Alameda County are expected to increase by approximately 19 percent between 2005 and 2020 (CARB, 2007c). This increase would be primarily from fugitive dust produced by anticipated increases in the vehicle miles traveled as well as stationary sources (such as industrial activities) and area sources (such as construction and demolition, road dust and other miscellaneous processes). Fugitive dust refers to particulate matter not emitted from a duct, tailpipe or stack, which becomes airborne due to the forces of wind, man's activity, or both. Activities that generate fugitive dust include vehicle travel over paved and unpaved roads, brake wear, tire wear, soil cultivation, off-road vehicles, or any vehicles operating on open fields or dirt roadways, wind erosion of exposed surfaces, storage piles at construction sites, etc. PM-2.5

emissions in Alameda County are projected to remain steady over the same period (CARB, 2007c), as the reduction in emissions from on-road and off-road engines would be offset by an increase in their activity and also an increase in industrial growth.

The standards for nitrogen dioxide, sulfur dioxide, and lead are being met in the Bay Area, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future (ABAG, 2001).

Toxic Air Contaminants

Both BAAQMD and CARB have monitoring networks in the Bay Area that measure ambient concentrations of certain TACs that are associated with important health-related effects and are present in appreciable concentrations in the Bay Area. The BAAQMD uses this information to determine risks for a particular area. Generally, ambient concentrations of TACs are similar through the urbanized areas of the Bay Area. Of the pollutants for which monitoring data are available, benzene and 1,3- butadiene (which are emitted primarily from motor vehicles) account for over one-half of the average calculated cancer risk (BAAQMD, 2004). Benzene levels have declined dramatically since 1996 with the advent of Phase 2 reformulated gasoline. The use of reformulated gasoline also appears to have led to significant decreases in 1,3-butadiene. Due largely to these observed reductions in ambient benzene and 1,3-butadiene levels, the calculated network average cancer risk has been significantly reduced in recent years. Based on 2002 ambient monitoring data, the BAAQMD reported a calculated lifetime cancer risk from measured concentrations of TACs, excluding diesel particulate matter, to be 162 in one million averaged over all Bay Area locations (BAAQMD, 2004). This is 46 percent less than what was observed in 1995 (BAAQMD, 2004). Because diesel particulate matter cannot be directly monitored in the ambient air, the BAAQMD uses CARB's estimates of the population-weighted average ambient diesel particulate concentration for the Bay Area to derive an average cancer risk from diesel particulate matter exposure at about 480 in-one-million, as of 2000 (CARB, 2006b). The risk from diesel particulate matter has been reduced from 750 in-one-million in 1990 and 570 in-one-million in 1995 (CARB, 2006b).

The TAC monitoring station closest to the project site is the Oakland – Davie Station (Davie Tennis Stadium, 198 Oak Street), approximately 2.5 miles northwest of the project site. **Table IV.D-4** provides a summary of TAC Data for the San Francisco Bay Area Air Basin.

Physical Setting for GHG Emissions and Climate Change

There is a general scientific consensus that global climate change is occurring, caused in whole or in part, by increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere(US EPA, 2000), in much the same way as glass in a greenhouse. While many studies show evidence of warming over the last century and predict future global warming,

TABLE IV.D-4
SAN FRANCISCO BAY AREA AIR BASIN TOXIC AIR CONTAMINANTS – ANNUAL AVERAGE CONCENTRATIONS AND HEALTH RISKS

TAC	Annual Average Concentration[a] and Health Risk[b]	2000	2001	2002	2003	2004
Acetaldehyde	Annual Avg	0.68	0.73	0.63	0.74	0.74
	Health Risk	3	4	3	4	4
Benzene	Annual Avg	0.56	0.43	0.45	0.44	0.37
	Health Risk	52	39	42	41	34
1,3-Butadiene	Annual Avg	0.15	0.13	0.14	0.1	0.09
	Health Risk	56	50	51	37	34
Carbon Tetrachloride	Annual Avg	0.09	0.09	0.09	0.1	
	Health Risk	25	23	24	25	
Chromium (Hexavalent)	Annual Avg	0.12	--	0.07	0.1	0.09
	Health Risk	18	--	11	14	14
para-Dichlorobenzene	Annual Avg	0.11	0.14	0.15	0.15	0.17
	Health Risk	7	9	10	10	11
Formaldehyde	Annual Avg	1.77	2.32	2.57	2.22	1.71
	Health Risk	13	17	19	16	13
Methylene Chloride	Annual Avg	0.53	0.27	0.22	0.22	0.14
	Health Risk	2	<1	<1	<1	<1
Perchloroethylene	Annual Avg	0.08	0.06	0.05	0.04	0.035
	Health Risk	3	2	2	2	1
Diesel Particulate Matter[c]	Annual Avg	1.6	1.6	1.6	1.6	1.6
	Health Risk	480	480	480	480	480

[a] Concentrations for Chromium (Hexavalent) are expressed as ng/m^3 and concentrations for diesel particulate matter are expressed as μg/m^3. Concentrations for all other TACs are expressed as ppb.
[b] Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. There may be significant compounds other than the ones presented here for which monitoring and/or health risk information are not available.
[c] Diesel particulate matter concentration estimates are based on receptor modeling techniques, and estimates are available only for selected years. Most recent data available is for the year 2000 and has been used for all other years presented.

SOURCE: CARB, 2007a.

the causes of such warming and its potential effects are far less certain.[3] In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures.

The US EPA has recently concluded that scientists know *with virtual certainty that*:

3 "Global climate change" is a broader term used to describe any worldwide, long-term change in the earth's climate. "Global warming" is more specific and refers to a general increase in temperatures across the earth, although it can cause other climatic changes, such as a shift in the frequency and intensity of weather events and even cooler temperatures even though the world, on average, is warmer.

- "Human activities are changing the composition of Earth's atmosphere. Increasing levels of greenhouse gases like CO_2 in the atmosphere since pre-industrial times are well-documented and understood.

- The atmospheric buildup of CO_2 and other greenhouse gases is largely the result of human activities such as the burning of fossil fuels.

- A warming trend of approximately 0.7 to 1.5°F occurred during the 20th century. Warming occurred in both the northern and southern hemispheres, and over the oceans.

- The major greenhouse gases emitted by human activities remain in the atmosphere for periods ranging from decades to centuries. It is therefore virtually certain that atmospheric concentrations of greenhouse gases will continue to rise over the next few decades.

- Increasing greenhouse gas concentrations tend to warm the planet."(US EPA, 2000)

At the same time, there is much uncertainty concerning the magnitude and rate of the warming. Specifically, the US EPA notes that "important scientific questions remain about how much warming will occur; how fast it will occur; and how the warming will affect the rest of the climate system, including precipitation patterns and storms. Answering these questions will require advances in scientific knowledge in a number of areas:

- Improving understanding of natural climatic variations, changes in the sun's energy, land-use changes, the warming or cooling effects of pollutant aerosols, and the impacts of changing humidity, and cloud cover.

- Determining the relative contribution to climate change of human activities and natural causes.

- Projecting future greenhouse emissions and how the climate system will respond within a narrow range.

- Improving understanding of the potential for rapid or abrupt climate change." (US EPA, 2000)

- Greenhouse Gases (GHG)

Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and water vapor (H_2O) are the principal GHGs, and when concentrations of these gases exceed the natural concentrations in the atmosphere, the greenhouse effect may be enhanced. Without these GHGs, Earth's temperature would be too cold for life to exist. CO_2, CH_4, and N_2O occur naturally as well as through human activity. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs – with much greater heat-absorption potential than CO_2 – include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6), which are byproducts of certain industrial processes. (Cal EPA, 2006b)

Potential Effects of Human Activity on GHG Emissions

As mentioned above, the primary GHG gas generated by human activity is CO_2. Fossil fuel combustion, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO_2 concentrations were found to have increased by nearly 30 percent above pre-industrial (c. 1860) concentrations.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP[4]), and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG gas emissions are typically measured in terms of pounds or tons of CO_2 equivalents (CO_2e).

Global Emissions

Worldwide emissions of GHGs in 2004 were 30 billion tons of CO_2e per year (UNFCC, 2007) (including both ongoing emissions from industrial and agricultural sources, but excluding emissions from land-use changes).

U.S. Emissions

In 2004, the United States emitted about 8 billion tons of CO_2e or about 25 tons/year/person. Of the four major sectors nationwide —residential, commercial, industrial and transportation — transportation accounts for the highest fraction of GHG emissions (approx. 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. (US EPA, 2007)

State of California Emissions

In 2004, California emitted approximately 550 million tons of CO_2e, or about 6 percent of the U.S. emissions.[5] This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise. (CEC, 2007) Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

The California EPA Climate Action Team reported in its March 2006 report that California's emissions were as follows:

- Carbon dioxide (CO_2) accounted for 83.3 percent;
- Methane (CH_4) accounted for 6.4 percent;
- Nitrous oxide (N_2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3.5 percent. (CalEPA, 2006b)

4 The potential of a gas or aerosol to trap heat in the atmosphere.
5 Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

The California Energy Commission found that transportation is the source of approximately 38 percent of the State's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 13 percent Agriculture and forestry is the source of approximately 8.3 percent, as a the source categorized as "other," which includes residential and commercial activities. (CEC, 2007)

Bay Area Emissions

In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of the Bay Area's GHG emissions, accounting for just over half of the Bay Area's 85 million tons of GHG emissions in 2002. Industrial and commercial sources were the second largest contributors of GHG emissions with about 25 percent of total emissions. Domestic sources (e.g., home water heaters, furnaces, etc.) account for about 11 percent of the Bay Area's GHG emissions, followed by power plants at 7 percent. Oil refining currently accounts for approximately 6 percent of the total Bay Area GHG emissions. (BAAQMD, 2006c)

City of Oakland Emissions

Oakland, in partnership with the Local Governments for Sustainability (ICLEI), has prepared the *Baseline Greenhouse Gas Emissions Inventory Report* to determine the community-wide levels of GHG emissions that the City of Oakland emits in its base year, 2005. (ICLEI, 2006) The community-wide levels reflect all the energy used and waste produced with the Oakland city limits. As shown in **Table IV.D-5**, Oakland emitted approximately 2.2 million tons of CO_2 equivalents (CO_2e) in 2005 from all major sources, nearly half of which from transportation . The analysis shows that the City's emissions increased by approximately 5 percent to 6 percent in each year since 2003.

TABLE IV.D-5
OAKLAND COMMUNITY-WIDE GHG EMISSIONS SUMMARY – 2005

Potential Source	Tons of Carbon Dioxide Equivalent (CO_2e)	Percent of Total
Transportation	1,138,767	47%
Commercial/Industrial	709,199	29%
Residential	580,710	24%
TOTAL	**2,248,667**	**100**

SOURCE: Oakland Baseline Greenhouse Gas Emissions Inventory, 2006

The inventory report also estimated emissions from municipal government activities, which constitute approximately 1.5 percent of total community-wide emissions.

The report also forecasts future community-wide emissions for years 2010 and 2020. From year 2005, emissions are forecasted to increase by 12 percent by 2010 (to 2.5 million tons of CO_2e), and 19.5 percent (to 2.7 million tons CO_2e) by 2020, assuming "business-as-usual" into the future.

Construction and Development Emissions

The construction and occupation of residential developments, such as the proposed project, cause GHG emissions. GHG emissions occur in connection with many activities associated with development, including use of construction equipment and building materials, vegetation clearing, natural gas usage, electrical usage (since electricity generation by conventional means is a major contributor GHG emissions, discussed below), water use (which in southern California is heavily reliant on electricity), and transportation.

However, it is important to acknowledge that new development does not necessarily create entirely new GHG emissions, since most of the persons who will visit or occupy new development will come from other locations where they were already causing such GHG emissions. Further, as discussed above, it has not been demonstrated that even new GHG emissions caused by a local development project can affect global climate change, or that a project's net increase in GHG emissions, if any, when coupled with other activities in the region, would be cumulatively considerable.

Potential Effects of Human Activity on Climate Change

Global Change

Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place, including substantial ice loss in the Arctic. (IPCC, 2007)

However, the understanding of GHG emissions, particulate matter, and aerosols on global climate trends remains uncertain. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is responsible for increasing warming, there is also evidence that some human activity has cooling, rather than warming, effects, as discussed in detail in numerous publications by the International Panel on Climate Change (IPCC), namely "Climate Change 2001, The Scientific Basis"(2001).[6]

Acknowledging uncertainties regarding the rate at which anthropogenic greenhouse gas emissions would continue to increase (based upon various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic

[6] The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to assess scientific, technical and socio- economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation.

development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions), and the impact of such emissions on climate change, the IPCC devised a set of six "emission scenarios" which mix and match various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century. (IPCC, 2000)These emission scenarios are paired with various climate sensitivity models to attempt to account for the range of uncertainties which affect climate change projections. The wide range of temperature, precipitation, and similar projections yielded by these scenarios and models reveal the magnitude of uncertainty presently limiting climate scientists' ability to project long-range climate change (as previously discussed).

The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects, according to the IPCC: (IPCC, 2007)

- Snow cover is projected to contract, with permafrost areas sustaining thawing.
- Sea ice is projected to shrink in both the Arctic and Antarctic.
- Hot extremes, heat waves, and heavy precipitation events are likely to increase in frequency.
- Future tropical cyclones (typhoons and hurricanes) will likely become more intense.
- Non-tropical storm tracks are projected to move poleward, with consequent changes in wind, precipitation, and temperature patterns. Increases in the amount of precipitation are very likely in high-latitudes, while decreases are likely in most subtropical regions.
- Warming is expected to be greatest over land and at most high northern latitudes, and least over the Southern Ocean and parts of the North Atlantic Ocean.

Potential secondary effects from global warming include global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

State of California Change

According to CARB, some of the potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. (CARB 2006c, 2007c) Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available on regional and local impacts. In addition, projecting regional impacts of climate change and variability relies on large-scale scenarios of

changing climate parameters, using information that is typically at too coarse a scale to make accurate regional assessments. (Kiparsky, 2003)

Below is a summary of some of the potential effects reported an array of studies that could be experienced in California as a result of global warming and climate change:

- Air Quality – Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. For other pollutants, the effects of climate change and/or weather are less well studied, and even less well understood. (US EPA, 2006) If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. (CCCC, 2006)

- Water Supply – Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. For example, models that predict drier conditions (i.e., parallel climate model [PCM]) suggest decreased reservoir inflows and storage and decreased river flows, relative to current conditions. By comparison, models that predict wetter conditions (i.e., HadCM2) project increased reservoir inflows and storage, and increased river flows. (Brekke, 2004)

  A July 2006 technical report prepared by the California Department of Water Resources (DWR) addresses the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta. Although the report projects that "[c]limate change will likely have a significant effect on California's future water resources . . . [and] future water demand," it also reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood." (DWR, 2006) DWR adds that "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future." (DWR, 2006) Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows. (Kiparsky 2003; DWR 2005; Cayan 2006)

  Water purveyors are required by state law to prepare Urban Water Management Plans (UWMPs) that consider climatic variations and corresponding impacts on long-term water supplies. (California Water Code, Section 10631(c) For those purveyors who receive water from SWP, DWR has published a 2005 SWP Delivery Reliability Report, which presents information from computer simulations of the SWP operations based on historical data over a 73-year period (1922–1994). The DWR has confirmed that the results of those model studies "represent the best available assessment of the delivery capability of the SWP." In addition, the DWR is continuing to update its studies and analysis of water supplies. Water

purveyors incorporate this information from DWR in their continuing updates of UWMPs, and information from individual UWMPs can be incorporated into Water Supply Assessments (WSAs) and Water Verifications prepared for certain development projects in accordance with Cal. Water Code Section 10910, et. seq. and Cal. Government Code Section 66473.7, et. seq. (See Section IV.H, *Utilities and Service Systems*, in this EIR for discussion of the WSA and verifications for the proposed project.)

- Hydrology – As discussed above, climate changes could potentially affect the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of sea water as the oceans warm, and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. In particular, saltwater intrusion would threaten the quality and reliability of the state's major fresh water supply that is pumped from the southern edge of the Sacramento/San Joaquin River Delta. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

- Agriculture – California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. The California Climate Change Center (CCCC) notes that higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thus affect their quality. (CCCC, 2006)

- Ecosystems and Wildlife – Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. In 2004, the Pew Center on Global Climate Change released a report examining the possible impacts of climate change on ecosystems and wildlife. (Parmesan, 2004) The report outlines four major ways in which it is thought that climate change could affect plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes such as carbon cycling and storage.

Sensitive Land Uses

Some persons are considered more sensitive than others to air pollutants. The reasons for heightened sensitivity may include health problems, proximity to the emissions source, and duration of exposure to air pollutants. Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution, because vigorous exercise associated with recreation places a high demand on the human respiratory system.

A variety of heavy and light industrial uses, commercial, retail, civic, and residential uses surround the project site. The residential neighborhoods of Jingletown, Rancho San Antonio, St. Elizabeth, and the Fruitvale surround and encompass the project area. The Caesar Chavez Education Center is located across East 12th Street from the project site; East 12th Street is a four-lane arterial separated by an approximately 25-foot wide grass median, over which the elevated BART tracks exist.

Impacts and Mitigation Measures

Significance Criteria

For air quality, a project may be deemed to have a significant adverse impact on the environment if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan;

2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

4. Expose sensitive receptors to substantial pollutant concentrations;

5. Frequently create substantial objectionable odors affecting a substantial number of people;

6. Contribute to CO concentrations exceeding the State AAQS of 9 ppm averaged over 8 hours and 20 ppm for 1 hour. [NOTE: Pursuant to BAAQMD, localized carbon monoxide concentrations should be estimated for projects in which (1) vehicle emissions of CO would exceed 550 lb/day; (2) intersections or roadway links would decline to LOS E or F; (3) intersections operating at LOS E or F will have reduced LOS; or (4) traffic volume increase on nearby roadways by 10% or more unless the increase in traffic volume is less than 100 vehicles per hour.];

7. Result in total emissions of ROG, NO_x, or PM_{10} of 15 tons per year or greater, or 80 pounds (36 kilograms) per day or greater;

8. Result in potential to expose persons to substantial levels of Toxic Air Contaminants (TAC), such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million;

9. Result in ground level concentrations of non-carcinogenic TACs such that the Hazard Index would be greater than 1 for the MEI;

10. Result in a substantial increase in diesel emissions;

11. If a proposed General Plan Amendment would fundamentally conflict with the currently adopted clean air plan**.**

The following air quality analysis addresses all of these general criteria except Criterion #5 regarding odors. Since any sources of odor proposed as part of the project, such as restaurants, would be subject to the requirements of BAAQMD Regulation 7 – *Odorous Substances,* any odor impacts would be maintained at a less than significant level. The regulation states that a person shall not discharge any odorous substance that remains odorous after dilution with odor-free air. The regulation also specifies the dilution rates for different emission point elevations and the method of collection and analysis of samples; and prohibits a person from discharging any odorous substance, which causes the ambient air at or beyond the property line of such person to be odorous and to remain odorous after dilution with four parts of odor-free air. The requirements of Regulation 7 apply once the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period that allege that a person has caused odors perceived at or beyond the property line of such person, and deemed to be objectionable by the complainants in the normal course of their work, travel, or residency. When the limits of this regulation become effective as a result of citizen complaints described above, the limits remain effective until such time as no citizen complaints have been received by the APCO for 1 year. The limits of this regulation become applicable again if and when the APCO receives odor complaints from five or more complainants within a 90-day period. Restaurants and other establishments for the purpose of preparing food for human consumption employing less than 5 persons are exempt from this regulation; the establishments employing less than 5 persons are not anticipated to create odor impacts that would pose a substantial adverse effect to nearby receptors.

For project-level impact analyses, the BAAQMD provides various thresholds and tests of significance. For ROG, NOx and PM-10, a net increase of 80 pounds per day is considered significant, while for CO, an increase of 550 pounds per day would be considered significant if it leads to or contributes to CO concentrations exceeding the State Ambient Air Quality Standard of 9 ppm averaged over 8 hours and 20 ppm for 1 hour (i.e., if it creates a “hot spot”). Generally, if a project results in an increase in ROG, NOx, or PM-10 of more than 80 pounds per day, then it would also be considered to contribute considerably to a significant cumulative effect. For projects that would not lead to a significant increase of ROG, NOx, or PM-10 emissions, the cumulative effect is evaluated based on a determination of the consistency of the project with the regional Clean Air Plan. These criteria recommended by the BAAQMD are consistent with the criteria used by the City of Oakland and enumerated above.

GHG Emissions and Climate Change

As of preparation of this EIR, there are no statutes, regulations, guidelines, or case law decisions requiring analysis of climate change within a CEQA document. Under AB 32, the CARB, the sole agency in charge of regulating sources of emissions of GHG in California, has been tasked with adopting regulations for reduction of GHG emissions. As of the date of this analysis, no air district in California, including the BAAQMD, is known to have identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to GHG emissions. In particular, there is currently no emission rate criterion for the purposes of identifying a significant contribution to global climate change in CEQA documents.

As identified in Section 15064(a) of the CEQA Guidelines, "determining whether a project may have a significant effect plays a critical role in the CEQA process." In addition, as outlined in Sections 15064(h) and 15130 of the CEQA Guidelines, an environmental impact report (EIR) is required to evaluate cumulative impacts when they can be determined to be "cumulatively considerable." (Any potential impact of a project on climate change could only be cumulative because the project is making an incremental contribution to an overall change in the environment.). However, the CEQA Guidelines and the CEQA Initial Study Checklist do not contain any provisions that specifically set forth requirements for analysis of global climate change impacts in an EIR. As stated in Section 15064(b) of the State CEQA Guidelines, "The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data." Additionally, CEQA Guidelines Section 15145 states, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

The City of Oakland has determined, based upon the discussion above and the factors discussed previously and summarized below, that the project's impact on global climate change is speculative and cannot be evaluated at this time:

- Uncertainties regarding human activities and climate change, and the –potential human activities that may reverse global warming trends.
- Lack of guidance for analysis of climate change issues in CEQA documents.
- Lack of methodology for evaluating GHGs, specifically determining the incremental increase in GHG emissions for an individual project, the impacts of a particular development project on global climate change, and the significance of any such impacts under CEQA.
- Lack of methodology for determining whether GHG emissions from an individual project are significant;[7]
- Lack of scientific basis to accurately project future climate trends, much less the likely adverse environmental impacts resulting from those trends in any specific location. (Australian Govt., 2007)

For all of the reasons summarize above (and discussed in detail in the *Environmental Setting* of this section), and pursuant to Section 15145 of the CEQA Guidelines, until such time as a sufficient scientific basis exists to 1) ascertain the incremental impact of an individual project on climate change, and to 2) accurately project future climate trends associated with that increment

7 While the direct output of greenhouse gases from a project can theoretically be estimated (provided valid methodologies are developed), the emission of GHGs associated with implementation of any one development project would not result in any discernable direct impact globally or locally on climate, water availability, plant or wildlife species, populations, habitats, or ecosystems. The indirect effects of project-specific greenhouse gases emissions from a development such as the proposed high-density residential project, are negligible at best, and available science considers them immeasurable.

of change, and 3) guidance is provided by regulatory agencies on the control of GHG emissions[8] and thresholds of significance, the significance of an individual project's contribution to global GHG emissions is too speculative to be determined. Therefore, further analysis and application of current emissions scenarios, climate models, and climate change projections to the proposed project is also speculative. However, this EIR does present estimated GHG emissions of the proposed project, project-related activities that could contribute to the generation of increased GHG emissions, the project design features that would avoid or minimize those emissions, and the approaches to reduce those emissions.

Methodology

Air Quality

Project-related air quality impacts fall into two categories: impacts due to construction, and impacts due to project operation. First, during project construction, the project would affect local particulate concentrations primarily due to fugitive dust sources. Over the long-term, the project would result in an increase in emissions primarily due to increased motor vehicle trips. Onsite stationary sources (such as natural gas boilers for water and space heating) and area sources (such as landscaping and use of consumer products) would result in lesser quantities of pollutant emissions.

For construction-related phase impacts, BAAQMD does not require quantification of construction emissions, but recommends that significance be based on a consideration of the control measures to be implemented (BAAQMD, 1999). Construction impacts are discussed qualitatively and the applicable BAAQMD-recommended dust abatement measures are identified.

Operational phase emissions were estimated using the Urban Emissions model, URBEMIS2007 for the expected project buildout year 2025 and compared to BAAQMD significance thresholds. Carbon monoxide impacts were evaluated using the BAAQMD's methodology for manual calculation of carbon monoxide concentrations specified in the 1999 BAAQMD CEQA Guidelines. Analysis was conducted for baseline conditions (generally 2005), 2010, and 2025 (cumulative analysis year) for both with- and without-project conditions. As discussed in Section IV.C, *Transportation, Circulation, and Parking,* the traffic analysis is based on baseline traffic conditions established as of August and November 2004. Therefore, the baseline condition for traffic-related air quality emissions would also be as of the August and November 2004 period.

Lastly, cumulative impacts of the project were evaluated based on the BAAQMD CEQA Guidelines as discussed under the significance thresholds.

8 Refer to the discussion under "Regulatory Setting, California" regarding the Proposed Early Actions to Mitigate Climate Change in California published by CARB in April 2007. There are no early action measures specific to residential development included in the list of 36 measures identified for CARB to pursue during calendar years 2007, 2008, and 2009.

GHG Emissions and Climate Change

Approach to CEQA Analysis of GHG Emissions and Climate Change Impacts in this EIR

While the preceding discussion outlines the speculative nature of determining the significance of an individual project's contribution to global GHG emissions at this time, the City of Oakland has provided a discussion of the proposed project in the *Impacts Analysis* section below, for consideration by decision makers. Discussed below are the project's estimated GHG emissions, project-related activities that could contribute to the generation of increased GHG emissions, and project design features that would avoid or minimize those emissions.

The approach employed is that, in lieu of an adopted significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to GHG emissions, the effects of a proposed project may be evaluated based not upon the quantity of emissions, but rather on whether practicable available control measures are implemented, similar to construction-related dust emissions within the San Francisco Air Basin. Theoretically, if a project implements reduction strategies identified in AB-32, the Governor's Executive S-3-05, or other strategies to help toward reducing GHGs to the level proposed by the governor and targeted by the City of Oakland, it could reasonably follow that the project would not result in a significant contribution to the cumulative impact of global climate change. Alternatively, a project could reduce a potential cumulative contribution to GHG emissions by contributing to available mitigation programs, such as reforestation, tree planting, or carbon trading. In addition, it can be fairly stated that a project also could inherently reduce GHG emissions through density and locale (e.g., compact development near transit and activity nodes of work or shopping)

Since the project site is located in an area that would not be subject to coastal or other flooding resulting from climate change, the potential effects of climate change on the proposed project are not discussed in this EIR.

Project Construction Impacts

Impact AIR-1: Activities associated with demolition, site preparation, and construction throughout development of the project would generate suspended and inhalable particulate matter. (Potentially Significant)

Construction-related emissions may cause adverse effects on the local air quality. Project construction would involve the eventual demolition of all existing buildings at the project site and new construction across approximately 9.7 acres. The project entails approximately 810 condominiums and town homes, approximately 25,950 square feet of retail space, and parking in six new buildings that would be constructed in six phases over a period of approximately 15 to 20 years. As indicated above (and in the Project Description in Chapter III of this Draft EIR), the project would be developed in multiple phases. Generally, the first phase could involve any one or more of the six development sites, with subsequent phases developed every two to four years thereafter. The project sponsor proposes to allow each development site to be fully constructed and occupied before initiating construction on another site. The construction impacts identified herein would apply to construction activities throughout development of the project, although the effects would be intermittent between each phase.

Project-related construction activities would include site preparation, earthmoving and general construction. Site preparation includes activities such as general land clearing and grubbing. Earthmoving activities include cut-and-fill operations, trenching, soil compaction and grading. General construction includes adding improvements such as roadway surfaces, structures and facilities. The emissions generated from these construction activities include:

- Dust (including PM-10 and PM-2.5) primarily from "fugitive" sources (i.e., emissions released through means other than through a stack or tailpipe) such as soil disturbance;
- Combustion emissions of criteria air pollutants (ROG, NO_X, CO, SOx, PM-10) primarily from operation of heavy equipment construction machinery (primarily diesel operated), portable auxiliary equipment and construction worker automobile trips (primarily gasoline operated);
- Evaporative emissions (ROG) from asphalt paving and architectural coating applications.

Demolition may result in airborne entrainment of asbestos, a toxic air contaminant, particularly where structures built prior to 1980 are being demolished. As stated above, the project would involve demolition of all existing structures on the project site. Some structural components of the buildings to be demolished may contain hazardous materials such as asbestos used in insulation, fire retardants, or building materials (floor tile, roofing, etc.) and lead-based paint. Therefore, the project has t the potential to result in public health hazards associated with airborne asbestos fibers or lead dust would be at a less than significant level.

The proposed project would be subject to the following standard conditions of approval, which would reduce the potential impact to less than significant.

> **Standard Condition AIR-1a: Asbestos Removal – If asbestos is found to be present in building materials to be removed, demolition and disposal is required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of Bay Area Air Quality Management District (BAAQMD) regulations, as may be amended.**

Construction-related fugitive dust emissions at the project site would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. Without mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM-10 and PM-2.5 concentrations may be adversely affected, temporarily and intermittently, during the construction period. In addition, the fugitive dust generated by construction would include not only PM-10, but also larger particles, which would fall out of the atmosphere, potentially as far as several hundred feet from the site and could result in nuisance impacts. The BAAQMD's approach to analyses of fugitive dust emissions from construction is to emphasize implementation of effective and comprehensive dust control measures rather than detailed quantification of emissions. The BAAQMD considers any project's construction-related impacts to be less than significant if the required dust-control measures are implemented. Without these measures, the impact is generally considered to be significant, particularly if sensitive land

uses are located in the project vicinity. Residential, educational, and outdoor recreation land uses are located as close as 300 feet from the boundaries of the project site.

The proposed project would be subject to the following dust control measures as conditions of approval. Implementation of the measures would reduce impacts from fugitive dust to on- and off-site receptors to a less than significant level.

Standard Condition AIR-1b: Dust Control Measures – During construction, the project applicant shall require the construction contractor to implement the following measures required as part of Bay Area Air Quality Management District's (BAAQMD) basic and enhanced dust control procedures required for construction sites. These include:

Basic Controls that Apply to All Construction Sites

a) Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c) 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.

d) Sweep daily (with water sweepers using reclaimed water if possible) all paved access roads, parking areas and staging areas at construction sites.

e) Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.

f) Limit the amount of the disturbed area at any one time, where feasible.

g) Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.

h) Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

i) Replant vegetation in disturbed areas as quickly as feasible.

j) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

k) Limit traffic speeds on unpaved roads to 15 miles per hour.

l) Clean off the tires or tracks of all trucks and equipment leaving any unpaved construction areas.

Enhanced Controls that Apply to Sites Greater than 4 Acres

m) All "Basic" controls listed above, plus

n) Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

o) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

p) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction.

q) Install appropriate wind breaks at the construction site to minimize wind blown dust.

(*Also see Standard Condition HAZ-1e*.)

Significance after Implementation of Standard Conditions: Less than Significant.

Impact AIR-2: Activities associated with demolition, site preparation and construction throughout development of the project would generate emissions of criteria pollutants, including equipment exhaust emissions. (Less than Significant)

Construction activities would result in the emission of ROG, NO_x, CO, SOx and PM-10 from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment use, duration of use, operation schedules (the time and frequency), and the number of construction workers traveling to the worksite by motorized vehicle. Criteria pollutant emissions of ROG and NO_x from these emissions sources would incrementally add to the regional atmospheric loading of ozone precursors during project construction. BAAQMD CEQA Guidelines recognize that construction equipment emits ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans. Therefore, construction emissions of ROG and NO_x would not be expected to impede attainment or maintenance of ozone standards in the Bay Area (BAAQMD, 1999). The impact of construction equipment exhaust emissions would therefore be less than significant.

However, while not required to mitigate a significant impact for the proposed project, the City of Oakland requires that the project shall implement the following standard conditions of approval to minimize construction equipment emissions during construction:

Standard Condition AIR-2: Construction Emissions -

a) Demonstrate compliance with BAAQMD Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. BAAQMD Regulation 2, Rule 1, requires an authority to construct and permit to operate certain types of portable equipment used for construction purposes (e.g., gasoline or diesel-powered engines used in conjunction with power generation, pumps, compressors, and cranes) unless such equipment complies with all applicable requirements of the "CAPCOA" Portable Equipment Registration Rule" or with all applicable requirements of the Statewide Portable Equipment Registration Program. This exemption is provided in BAAQMD Rule 2-1-105.

b) Perform low- NOx tune-ups on all diesel-powered construction equipment greater than 50 horsepower (no more than 30 days prior to the start of use of that equipment). Periodic tune-ups (every 90 days) should be performed for such equipment used continuously during the construction period.

Mitigation: None Required.

Project Operations Impacts

Impact AIR-3: The project would result in increased emissions of criteria pollutants and their precursors from vehicular traffic to and from the project site, however, the emission increases from the project would not exceed Bay Area Air Quality Management District significance criteria. (Less than Significant)

The project would result in an increase in criteria air pollutant emissions from a variety of emissions sources, including on-site area sources (e.g., natural gas combustion for space and water heating, landscape maintenance, use of consumer products such as hairsprays, deodorants, cleaning products, etc.) and mobile on-road sources (automobile and truck trips). Exhaust emissions from passenger vehicle travel associated with the project were calculated by using the URBEMIS2007 program of CARB, which uses EMFAC2007 emission factors and a standard mix of passenger vehicles in 2013. The last phase of construction of the project is expected to occur in 2025 and so it has been used as the project buildout year in this analysis. URBEMIS2007 also calculates area source emissions based on the size of the project.

The proposed project would result in approximately 4,437 new vehicle trips per day. **Table IV.D-6** summarizes project-generated mobile and area emissions of criteria pollutants for the project in the year 2025 (buildout) and compares them with significance threshold emission

TABLE IV.D-6
ESTIMATED DAILY EMISSIONS FOR THE PROPOSED PROJECT

Air Pollutant	Project Emissions,[a] 2025 (pounds/day)			Significance Threshold (pounds/day)
	Area Source Emissions	Vehicular Emissions[b]	Total	
NO_X	6.4	12.1	18.5	80
PM-10	0.02	59.3	59.3	80
ROG	46.0[c]	16.5	62.5[d]	80
CO	423.15	195.7	618.9[d]	550[d]

a Emission factors were generated by the Air Board's URBEMIS2007 model for San Francisco Bay Air Basin, and assume a default vehicle mix. All daily estimates are for summertime conditions except for CO, which assumes wintertime conditions.
b Vehicular emission levels shown represent a conservative analysis (overstated effects) as emissions associated with baseline vehicle trips from the project site are not deducted.
c Due to the large residential component of the project, almost 54 percent of the total ROG emissions are emitted from the use of consumer products while the remainder is composed of emissions from architectural coatings (e.g. repainting of project structures for maintenance – 18 percent) and mobile sources (26 percent).
d Projects for which mobile source CO emissions exceed 550 pounds per day do not necessarily have a significant air quality impact, but are required to estimate localized CO concentrations. Refer to Impact AIR-4 for analysis of project CO emissions.

NOTE: **No** values exceed applicable standards.

SOURCE: ESA, 2007

levels. As indicated in **Table IV.D-6**, project-related mobile emissions of ROG, NO_x and PM-10 (CO emissions are discussed Impact AIR-4) would not exceed the significance threshold emission levels. Therefore, impacts from increase in these emissions would be less than significant.

Mitigation: None Required.

Impact AIR-4: Mobile emissions generated by project traffic would increase carbon monoxide concentrations at intersections in the project vicinity. (Less than Significant)

Project-related traffic may lead to localized "hot spots" or areas with high concentrations of carbon monoxide concentrations around stagnation points, such as major intersections and heavily traveled and congested roadways. Project-related traffic could not only increase baseline traffic volumes but also cause baseline non-project traffic to travel at slower, more polluting speeds.

To evaluate "hot spot" potential, a microscale impact analysis was conducted adjacent to five intersections in the vicinity of the project site, would be most impacted by project traffic. The intersections were chosen based on their level of service (LOS) and the percentage contribution of project-traffic. It was assumed that if the relatively higher volumes of project-generated traffic at these intersections did not result in adverse impacts, impacts at other nearby intersections would experience similar or less substantial effects. For this analysis, local carbon monoxide

concentrations were estimated by applying the BAAQMD's methodology for manual calculation of CO concentrations along roadways and intersections to the results of the traffic study prepared for this project. Results of the concentrations levels are shown in **Table IV.D-7**.

TABLE IV.D-7
ESTIMATED CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS IN PROJECT VICINITY

Scenario	Averaging Time (hours)	Concentrations (ppm)[a,b]				
		E. 12th St. / 29th Ave.	E. 12th St. / 25th Ave.	Foothill / Fruitvale	E. 12th St. / IDerby Ave.	International / 42nd Ave.
Baseline	1	6.45	6.22	6.48	6.14	7.08
PM Peak Hour	8	4.33	4.16	4.35	4.11	4.77
Baseline + Project	1	6.54	6.22	6.43	6.16	7.09
PM Peak Hour	8	4.39	4.17	4.32	4.13	4.78
2010 Baseline	1	5.99	5.78	5.94	5.73	6.49
PM Peak Hour	8	4.02	3.87	3.98	3.83	4.37
2010 + Project	1	6.05	5.79	5.95	5.74	6.5
PM Peak Hour	8	4.06	3.88	3.99	3.85	4.37
2025 Baseline	1	5.33	5.12	5.24	5.09	5.76
PM Peak Hour	8	3.58	3.43	3.52	3.41	3.89
2025 + Project	1	5.38	5.13	5.24	5.1	5.77

[a] Concentrations relate to a location 25 feet from the edge of the roadways that form the intersection. The carbon monoxide analysis focuses on the weekday afternoon (p.m.) peak-hour because the project's effects on traffic congestion and related carbon monoxide concentrations are greater during that period than during the morning (a.m.) peak hour. Carbon monoxide estimates shown above include background concentrations of 5.6 ppm, one-hour average, and 3.7 ppm, eight-hour average for 2006; 5.2 ppm, one-hour average and 3.5 ppm, eight-hour average for 2010 and 4.5 ppm, one-hour average and 3 ppm, eight-hour average for 2025. [b] The California ambient air quality standard for carbon monoxide is 20 ppm, one-hour average and 9 ppm, eight-hour average.

NOTE: No values exceed applicable standards.

SOURCE:ESA, 2007.

As shown in **Table IV.D-7**, the analysis demonstrated that no exceedances would occur in the vicinity of –any of the five analyzed intersections under any of the scenarios. Therefore, the effect of the project on local carbon monoxide standards would be less than significant. Further, carbon monoxide concentrations in 2010 and 2025 are projected to be progressively lower compared to existing baseline conditions due to improvements in the automobile fleet, attrition of older, high-polluting vehicles, and improved fuel mixtures (BAAQMD, 1999). Such reduction would offset any effects of increase in traffic due to cumulative development. The number of daily and peak hour vehicle trips generated during construction periods would be less than the number of trips generated during operation of the project. Therefore, the impacts of construction traffic on carbon monoxide levels at intersections in the vicinity of the project would also be less than significant.

Thus, project-related and cumulative traffic would have a less than significant impact on local carbon monoxide concentrations.

Mitigation: None Required.

Impact AIR-5: The proposed project could result in exposure of persons to substantial levels of Toxic Air Contaminants (TACs) such that the probability of contracting cancer for the Maximally Exposed Individual exceeds 10 in one million. (Less than Significant)

Diesel Particulate Matter (DPM) emissions from the project during operation would occur primarily from the delivery trucks that would be visiting the site. Based on the traffic analysis conducted by Korve Engineering, Inc. (Korve, 2007) for this project, daily traffic increases due to the project would be approximately 4,437 total vehicle trips by 2025. To determine the proportion of new trips that would be diesel operated, the general vehicle fleet percentages contained in URBEMIS2007 were used. URBEMIS2007 estimates that in 2025, when the project is expected to be fully operational, there would be approximately 98 total daily trips by diesel powered vehicles. Likewise, the percentage of vehicles and trucks within each weight class and the portion of these trucks that are fueled by diesel were also obtained from URBEMIS2007. Diesel exhaust emissions rates for all diesel trucks were obtained from CARB's EMFAC2007 emissions model, assuming an average vehicle speed of 30 mph. Total emissions were calculated for a total distance of one mile, which includes one-half mile as the truck approaches the site and one-half mile as the truck leaves the site. The annual average DPM emissions for these truck-travel distances were estimated to be approximately 5.2 lbs in the year 2025.

Annual average DPM concentration impacts from diesel vehicles operating near the site were calculated using the SCREEN3 model, and the incremental cancer risks were estimated from these concentrations. The estimated incremental DPM concentrations near the site ranged from 0.0013 to 0.0019 microgram per cubic meter. The incremental cancer risks from exposure to these concentrations were estimated to be 0.45 to 0.65 in a million. Since these impacts are substantially less than the BAAQMD significance threshold of 10 in a million, the impacts would be less than significant.

The *Air Quality and Land Use Handbook* prepared by CARB recommends that sensitive uses no be located within 500 feet of a heavily traveled freeway and does not require further analysis when locating sensitive uses at distances greater than 500 feet from freeways with 100,000 or more vehicles/day (CARB, 2005). DPM emissions from trucks and heavy-duty vehicles on the I-880 freeway are not expected to contribute significantly to the health risk at the project site given its distance of approximately one-quarter mile (approximately 1,300 feet) south of the project site. The electrified BART trains that operates on the elevated track adjacent to the project site is not a source of DPM or other TAC emissions.

DPM emissions from the operation of passenger trains (operated by Amtrak) and freight trains along the railroad tracks located along the southern boundary of the project site would be the primary source of DPM emissions near the project site. The impact from train activity is generally much lower than freeways due to the infrequent and intermittent nature of activity along train

tracks. Freeways form a constant source of emissions with only the emissions strength varying with traffic level. Future project residents would be exposed to these emissions in addition to background health risk levels to which all residents of the Bay Area are exposed. Given the proximity of most development in the Bay Area to trains, freeways and other sources of DPM, the background health risk calculated for the Bay Area that was derived by BAAQMD from the monitoring of surrogates to DPM at several locations in the region already accounts for increased health risk from proximity to train tracks. Moreover CARB's *Air Quality and Land Use Handbook* does not identify activity along train tracks as a source of concern for DPM emissions. The impact is much greater when sensitive uses are proposed to be located close to rail yards where greater emissions of DPM can occur in a confined area. For these locations, CARB requires a more detailed site specific analysis. Given that the project site is abutted by tracks whose activity can be described as "infrequent" by the Federal Transit Administration (FTA) criteria[9] (US DOT, 2006), DPM emissions from this activity is not expected to pose a significant health risk to future occupants of the project. This impact would therefore be less than significant.

Mitigation: None Required.

Cumulative Air Quality Impacts

Impact AIR-6: The proposed project is fundamentally consistent with the growth assumptions of the Bay Area Clean Air Plan. (Less than Significant)

Locally, emissions from project sources would be combined with emissions from other sources, primarily including area traffic (local streets and freeways) from existing and future development in the greater project area. Although cumulative traffic volumes would increase by 2025, this increase would be partly offset by the reduction in emissions on a grams-per-mile basis. This is due to attrition of older, high polluting vehicles, improvements in the overall automobile fleet, and improved fuel mixtures (as a result of on-going state and federal emissions standards and programs for on-road motor vehicles). Cumulative impacts on carbon monoxide concentrations at local intersections in 2025 would be less than significant as the worst-case carbon monoxide concentrations at all the analyzed intersections would be below the corresponding ambient standards.

According to the BAAQMD CEQA Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. **Table IV.D-6** shows that the operational emissions of ROG, NO_x and PM-10 due to project-related traffic estimates based on the CARB model URBEMIS2007 would be less than the significance criteria of 80 pounds per day. For projects that individually have a less than significant impact on regional air quality, the BAAQMD Guidelines state that the cumulative impact should be determined based on the project's consistency with the applicable local Clean

[9] FTA designates rail activity frequency as either frequent or infrequent for the purposes of vibration assessment, depending upon the number of pass-by events per day. "Infrequent" activity is fewer than 70 events per day.

Air Plan, in this case, the 2005 Bay Area Ozone Strategy. For a project to be consistent with the 2005 Bay Area Ozone Strategy, the project must not conflict with or obstruct its implementation, and should be consistent with its underlying growth assumptions, which are the ABAG *Projections 2003* forecasts. Between 2005 and 2025, ABAG *Projections 2003* forecast citywide population growth of approximately 18 percent (415,700 to 489,100) and forecast citywide increase in households of 20 percent (153,520 to 184,350). For the same period, Oakland's Cumulative Growth Scenario (which routinely project greater growth projections than ABAG, see Appendix D) forecasts an approximately 9 percent growth in population (107,260 to 117,060) in the project area (*with the proposed project*) and a 16 percent growth in households (34,220 to 39,630).[10] Since growth rates anticipated for the area of the proposed project would not exceed ABAG's projected growth rate for Oakland, the project would not conflict with the underlying growth assumptions of the 2005 Bay Area Ozone Strategy.

The BAAQMD CEQA Guidelines state that if a project requires a General Plan Amendment – as the proposed project does – a fundamental conflict could occur if the project generates more vehicle miles traveled (VMT) than what would occur from the project site under the zoning and land use designations that exist without the proposed General Plan Amendment. Therefore, when considering the western approximately 3.2 acres of the site where a General Plan Amendment is required to allow the residential land uses envisioned for the project, the proposed project would result in fewer total daily vehicle trips (thus, vehicle miles traveled) than would development under the existing General Plan land use classification (*Business Mix*) and zoning (M-30 General Industrial). The project proposes 310 dwelling units and 2,900 commercial square feet on the portion of the site currently designated *Business Mix* (Sites I and II), which would result in approximately 1,300 total daily vehicle trips.[11] Under the existing zoning and land use classification, with consideration also given to the vision of "growth and change" that the General Plan LUTE specifies along the East 12th Street Corridor in the project area and that is supported by the Coliseum Redevelopment Plan goals, a theoretic development of 40,000 square feet of commercial use which could occur in the existing M-30 General Industrial Zone and the *Business Mix* land use classification is assumed, which could generate approximately 1,560 total daily vehicle trips (and potentially fewer given the site's proximity to BART and transit).[12] [13]

In addition, the proposed project would generally be consistent with the 2005 Bay Area Ozone Strategy through consistency with the Smart Growth principles that are incorporated into ABAG's *Projections 2003* and that the proposed project, as well as the Oakland Cumulative Growth Scenario, embody. As described by ABAG, Smart Growth refers to

> …development that revitalizes central cities …, supports and enhances public transit, promotes walking and bicycling, and preserves open

[10] San Antonio and Fruitvale Areas, generally I-580 on the north, the Oakland Estuary on the south, Lake Merritt and the Channel on the west, and approximately High Street on the east, as defined consistent with Census Tracts encompassing the project area, as identified and combined for purposes of this EIR (see Appendix D, Table D-3).
[11] Assuming the same trip generation methodology applied Table IV.C-7, Project Weekday Trip Generation.
[12] Assuming the same trip generation methodology applied in Appendix E for General Light Industrial land use.
[13] Scenario of 35,000 commercial square feet is estimated based on the parcel site (3.7 acres) and a potential developable area of approximately 25 percent of the total site area.

> spaces and agricultural lands. … Focusing new housing and commercial development within already developed areas requires less public investment in new roads, utilities and amenities. Investment in the urban core can reduce crime, promote affordable housing and create vibrant central cities and small towns. By coordinating job growth with housing growth, and ensuring a good match between income levels and housing prices, smart growth aims to reverse the trend toward longer commutes, particularly to bedroom communities beyond the region's boundaries. People who live within easy walking distance of shops, schools, parks and public transit have the option to reduce their driving and therefore pollute less than those living in car-dependent neighborhoods. (ABAG 2004)

The proposed project would be a transit-oriented development (TOD), consistent with the aforementioned Smart Growth concepts, Oakland General Plan LUTE policies (see *City of Oakland Local Plan and Policies Relevant to GHG Emissions and Climate Change*, above), and the Alameda County Congestion Management Agency (ACCMA). ACCMA has adopted transportation and land use goals that characterize TODs as "residential or mixed-use development designed and located to make transit use as attractive and convenient as possible." Specifically, ACCMA considers TODs to be located within one-third mile of a transit station or trunkline bus route and include moderately high-density housing and small, local-serving businesses co-located in a planned community that has been designed for convenient walk, bicycle, and transit access. (ACCMA, 2007) In addition, the project would be infill development that would provide new housing and space for new jobs, and would be walking distance from a number of local schools.

In summary, the project would not fundamentally conflict with the 2005 Bay Area Ozone, the currently adopted Clean Air Plan, and would not result in a cumulative air quality impact. The impact would be less than significant.

Mitigation: None Required.

Project's Potential to Generate Increased Greenhouse Gas Emissions and Affect Climate Change

Although it is possible to generally estimate a project's contribution of CO_2 into the atmosphere, it is a matter of speculation whether that project increases existing levels of GHGs globally or in the State of California. Moreover, even if it is assumed that a project does create an incremental increase in those emissions, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment given the considerations discussed previously in this section.

The amount of increased GHG emissions that may be generated by the proposed project would not, by itself, influence global climate change. It cannot currently be determined if the proposed project would provide an incremental contribution to the cumulative increase of GHG emissions.

As previously noted, there are no published thresholds of significance, and no regulatory guidance available that evaluate climate change and GHG emissions in conjunction with individual development projects. In addition, the scientific and technical literature indicates that there is not yet a methodology for reflecting the impact of individual land use decisions in climate change models. Until such time that sufficient scientific basis exists to accurately project future climate trends and guidance is provided by regulatory agencies on the control of GHG emissions and thresholds of significance, the significance of the proposed project's contribution to global GHG emissions, pursuant to CEQA, cannot be judged, but is likely less than significant.

Potential Project Activities Contributing to GHG Emissions

As also previously discussed, the construction and operation of the proposed residential and commercial project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during operation. Typically more than 80 percent of the total energy consumption takes place during the use of buildings and less than 20 percent is consumed during construction. (UNEP, 2007) As of yet, there is no study that quantitatively assesses all of the GHG emissions associated with each phase of the construction and use of an individual residential development.

Overall, the following activities associated with a typical residential development could contribute to the generation of GHG emissions:

- Removal of Vegetation – The net removal of vegetation for construction results in a loss of the carbon sequestration in plants. Alternately, planting of additional vegetation would result in additional carbon sequestration and lower the carbon footprint of the project.

- Construction Activities – Construction equipment typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGes such as carbon dioxide, methane and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment.

- Gas, Electric and Water Use – Gas use results in the emissions of two GHGes: methane (the major component of natural gas) and carbon dioxide from the combustion of natural gas. Methane is released prior to initiation of combustion of the natural gas (as before a flame on a stove is sparked), and from the small amount of methane that is uncombusted in a natural gas flame. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy intensive. Preliminary estimates indicate that total energy used to pump and treat this water exceeds 15,000 GWh per year, or at least 6.5 percent of the total electricity used in the state per year. (CEC, 2004)

- Motor Vehicle Use – Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips. However, these emissions would not be "new" since drivers are likely relocated from another area.

While the proposed project and all developments of similar land use would generate GHG emissions as described above, the City of Oakland's ongoing implementation of its Sustainability

Community Development Initiative (which includes an array of programs and measures, discussed previously under *Regulatory Context for GHG Emissions and Climate Change*) will collectively reduce the levels of GHG emissions and contributions to global climate change attributable to activities throughout Oakland.

Estimated GHG Emission from the Proposed Project

With consideration given to the above discussion regarding the extent to which GHG emissions from an individual project may, by itself, influence global climate change, the following estimate of the proposed project's emissions is provided to allow a comparison with the City's baseline (approximately 2.2 million tons of CO_2e in 2005, or 12.3 million pounds per day; see **Table IV.D-5**).

GHG emissions would result from increases in motor vehicle trips resulting from the proposed project, as well as from natural gas combustion and solid waste generation by future occupants of proposed residences**. Table IV-D-8** presents the GHG emissions that would result from the proposed project.

TABLE IV.D-8
ESTIMATED EMISSIONS OF GREENHOUSE GASES FROM PROPOSED PROJECT AND CITYWIDE

Emission Source	Emissions (pounds CO_2e per day)			
	CO_2	CH_4	N_2O	Total CO_2e
Motor vehicle trips	28,895	92	1,815	30,802
Space and water heating	21,678	1010	156	22,844
Landscape maintenance	15	<1	1	16
Solid waste generation	---	6,116	---	6,116
Total Operational GHG Emissions from Project	50,588	7,218	1,972	**59,778**
Total Citywide 2005 GHG Emissions				*12.3 million*
Project percentage of Total Citywide 2005 GHG Emissions				*0.486 %*

SOURCE: ESA, 2007

GHG emissions associated with the proposed project were calculated using the URBEMIS 2007 Version 9.2.0 model of the California Air Resources Board and trip generation data from the project traffic analysis.[14] Because URBEMIS2007 only estimates CO_2, scaling factors derived from the State of California Inventory of GHG Emissions were used to determine the relative

[14] Consistent with the trip generation estimated for the traffic analysis in this EIR, no credit is taken for emissions (i.e., trips) from existing site uses – uses that would be eliminated by the project (primarily self-storage facilities, a small auto repair/maintenance shop, and a Caltrans maintenance facility). Thus, the estimated emissions can be considered conservative.

emissions of methane (CH_4) and nitrous oxide (N_20) in order to generate emissions of GHG as carbon dioxide equivalents (CO_2e).

The URBEMIS2007 model also estimates CO_2 emissions from natural gas combustion for space and water heating and fuel combustion for landscape maintenance, based on land use size (number of dwelling units or commercial square footage). Again, the appropriate scaling factors from the State GHG Inventory were used to determine the relative amounts of methane and nitrous oxide emitted from residential fuel combustion. Emissions of GHG from solid waste generation associated with the project were determined using an emission factor from U.S. EPA.

Project Design Features

While no significant impacts have been identified, and no mitigation is required, project characteristics, design features which have been included in the project to reduce the amount of GHG emissions generated during construction and operation are provided below.

- Urban Infill Location - The project would be a TOD, developing high-density housing in the central area of Oakland. As such, the project would reduce transportation-related GHG emissions compared to emissions from the same amount of population and employment growth elsewhere in the outer Bay Area. Because transit service is generally less available in most areas of the outlying areas than in the central area of Oakland (and in particular at the project site near BART and multiple transit services), development in those locations would likely result in increased peak-hour vehicle trips of relatively long distances, and often in single-occupant vehicles, compared to development at the project site.

- Proximity to Multiple Transit Modes - The project would develop high-density housing within three blocks of BART and International Boulevard, a primary transit corridor, and within an area developed with pedestrian facilities and proposed enhancements to bicycle facilities. Therefore, the project would facilitate walking and other non-vehicular travel more viable than would be the case for similar population and employment growth in outlying areas away from transit. In addition, the high-density development would include a greater number of potential residents that could potentially utilize or engage in alternative modes of travel than in a lower density development on the project site.

- Energy Efficiency - The proposed project would be required to comply with all applicable local, state and federal regulations associated with the generation of GHG emissions and energy conservation. In particular, construction of the proposed project would also be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings and the requirements of pertinent City policies as identified in the City of Oakland General Plan, helping to reduce future energy demand as well as reduce the project's contribution to regional GHG emissions. The project would also consider use of reduced-emission or zero-emission energy alternatives and reducing energy demand through conservation or improved energy efficiencies, to the greatest extent feasible.

- Building and Site Design - As described in the Project Description (Chapter III), the project sponsor has identified as an objective for the proposed project its aims to incorporate to the greatest extent feasible site and building design principles and standards into the project that promote sustainable development. These include specific sustainable construction and operational and standards that would be appropriate for the project and that support goals to increase energy efficiency. The project sponsor, in collaboration with the City, will

consider methods outlined in existing programs, such as the *GreenPoint* Rated (a program of Build It Green, sponsored by a number of Bay Area public agencies and jurisdictions) or LEED standards (Leadership in Energy and Environmental Design Green Building Rating System™, the nationally accepted benchmark for the design, construction, and operation of high performance green buildings). These include

- use of exceptionally durable and/or reused materials;
- materials that avoid toxic emissions;
- equipment and fixtures that conserve energy;
- maximizing efficient and natural lighting and ventilation; and
- maximizing on-site landscaping, including above-grade.

In addition, as discussed in Section IV.I, *Hydrology and Water Quality*, the project would decrease the amount of impervious area and increase vegetation on the site, and could result in fewer vehicle trips compared to development that could otherwise occur under the existing General Plan land use classifications on portions of the site (*Business Mix and Regional Commercial*).

Conclusion

Although no significant impacts have been identified, and no mitigation is required, the project's GHG emissions generated during construction and operation would be minimized by virtue of the existing characteristics and design features that have been included in the project. In addition, emissions would also be reduced since the project is subject to all the regulatory requirements, mitigation measures, and standard conditions in this EIR that would reduce GHG emissions of the project. These include, for example, standard conditions for transportation management to address cumulating air quality impacts, adherence to best management construction practices and equipment use, and maximizing Provision C.3 standards regulating post construction stormwater.

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E. Noise

This section addresses noise impacts associated with the proposed Gateway Community Project. It analyzes potential noise impacts caused both during the construction and operational phases of the proposed project on the ambient noise environment. It also analyzes the compatibility of the proposed noise-sensitive uses such as residences with the existing noise environment. Background information on environmental acoustics, including definitions of terms commonly used in noise analysis, is provided below.

Environmental Setting

Technical Background

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA).[1] Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise levels rarely persist consistently over a long period of time. Rather, community noise varies continuously with time with respect to the contributing sound sources of the community noise

[1] All noise levels reported herein reflect A-weighted decibels unless otherwise stated.

environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment varies the community noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level, which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

L_{min}: The instantaneous minimum noise level measured during the measurement period of interest.

L_x: The sound level that is equaled or exceeded x percent of a specified time period. The L_{50} represents the median sound level.

DNL: The energy average of the A-weighted sound levels occurring during a 24-hour period, and which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: Similar to the DNL, the Community Noise Equivalent Level (CNEL) adds a 5-dBA "penalty" for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10-dBA penalty between the hours of 10:00 p.m. and 7:00 a.m.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants generally experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather they combine logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 7.5 dBA per doubling of distance from the source, depending on the topography of the area and environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noise, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4 to 6 dBA.

Noise Sources and Levels

Transportation sources, such as automobiles, trucks, trains, and aircraft, are the principal sources of noise in the urban environment. Along major transportation corridors, noise levels can reach 80 DNL, while along arterial streets, noise levels typically range from 65 to 70 DNL. Industrial and commercial equipment and operations also contribute to the ambient noise environment in their vicinities.

The project site is located in an urbanized area of Oakland and is bounded by East 12th Street and BART tracks to the north,[2] and the Union Pacific Railroad (UPRR) tracks to the south, and imaginary extension south at approximately 26th Avenue to the west, and Derby Avenue to the east. In addition, 29th Avenue divides the project site. The project site vicinity includes a burgeoning commercial/retail district along International Boulevard and in the Fruitvale Transit Village, the City of Oakland's Animal Shelter (north side of 29th Avenue) and several large shopping facilities including the Fruitvale Station Shopping Center (south side of 29th Avenue). This area also includes a range of industrial and truck-related uses, many small commercial businesses, small retail shops, some vacant industrial facilities, elementary schools, the Fruitvale BART Station, and a mix of multifamily and single-family housing.

Primary noise sources in the project site vicinity include activity along the UPRR tracks and BART tracks, and vehicular traffic on local roadways. Noise from activities associated with the retail, commercial and business establishments would be secondary. The Fruitvale BART Station is located approximately three blocks east of the project area. On a typical weekday, as many as 203 train trips take place from this station to other stations in the BART system. The frequency of freight trains on the UPRR tracks is lower and since they operate as line-haul vehicles with lower speeds in the range of 20 to 25 miles per hour, the associated maximum noise level is also lower. A typical UPRR train traveling at 25 mph may produce noise levels that exceed 95 dBA at 100 feet, while noise from train horns may approach 110 dBA (Illingworth & Rodkin, 2004). Brakes, coupling impacts, and crossing guard warnings are additional common sources of noise along a railroad corridor. BART trains achieve a maximum speed of 80 mph, and travel at an average of 33 mph between stations. A typical BART train produces 85 dBA noise level at a distance of 100 feet from the tracks (Illingworth & Rodkin, 2004). Noise levels are lower in the immediate vicinity of the project site, due to the slower speeds of approaching and departing trains at the Fruitvale Station.

To establish the environmental baseline against which to evaluate the potential effects of the project on the existing noise environment, ESA conducted noise measurements at the project site. Two long-term (24–hour) measurements were taken on a weekday at two onsite locations. The first measurement, LT-1, was taken along the northern boundary of the project site along East 12th Street, adjacent to the self-storage facility and approximately 50 feet from the edge of the road. The second measurement, LT-2, was taken along the southern boundary of the project site adjacent to the UPRR tracks. At both locations, noise from BART and UPRR activity was a prominent component of the ambient noise environment, in addition to traffic circulation on adjacent roadways and activities associated with the commercial businesses nearby. In addition, Charles M. Salter Associates, Inc. conducted five long-term (48-hour) noise measurements as part of the *Fruitvale Gateway Environmental Noise and Vibration Feasibility Study* (2005) for the project.

[2] Following the City of Oakland's convention, the Oakland hills are considered "north," and therefore the Estuary is south of the site. East 12th Street and International Boulevard therefore run in an east-west direction at and near the project site.

The monitored DNL levels at each measurement location are shown in **Table IV.E-1 and mapped in Figure IV.E-1**.

TABLE IV.E-1
BASELINE NOISE LEVELS AT THE PROJECT SITE (DBA)

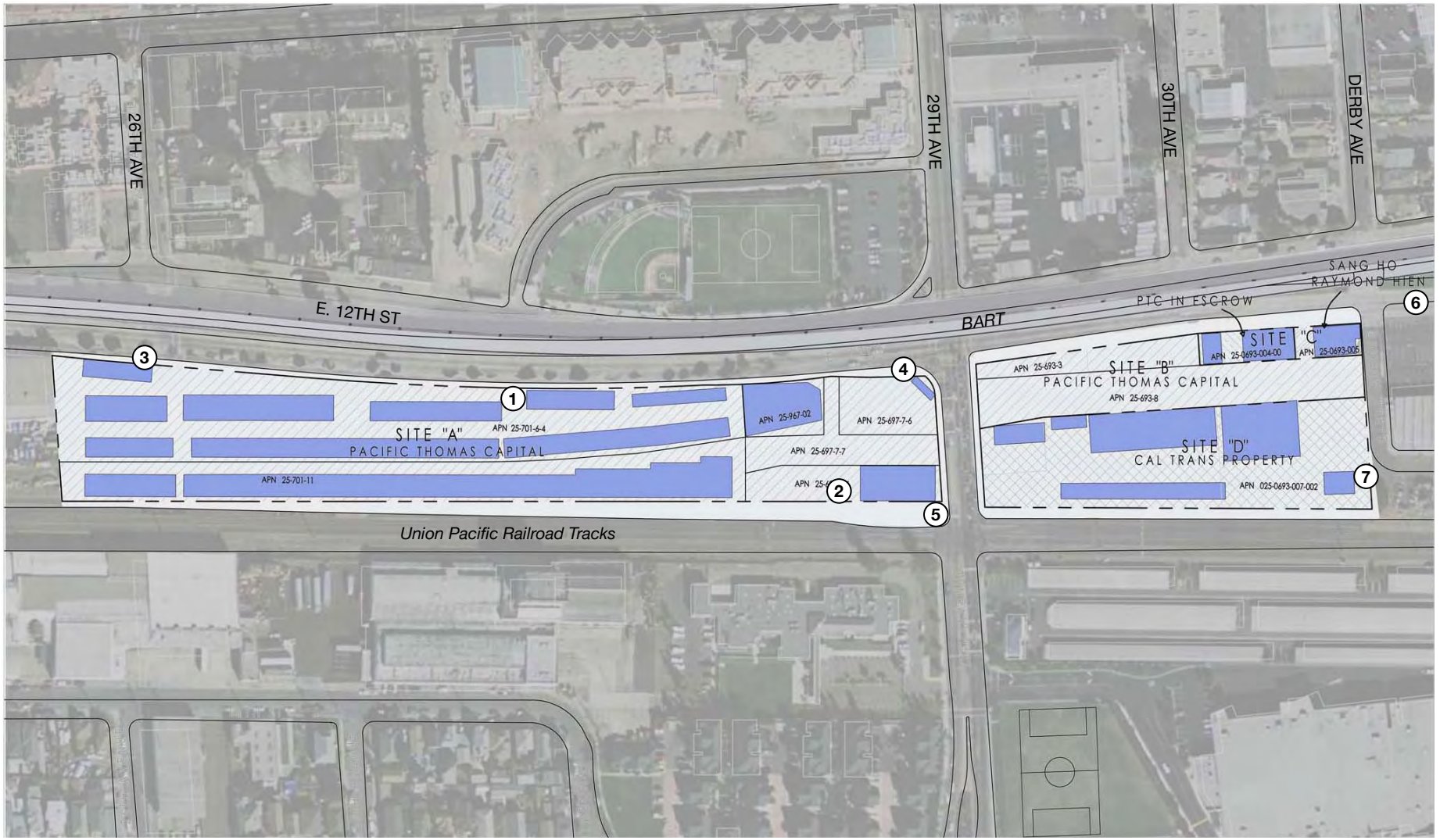
	DNL	Location
LT-1	71.6 dBA	At the gate of the storage facility along the eastern boundary of the project site approximately 50 feet from the edge of East 12th Street
LT-2	76.2 dBA	Along the western boundary of the project site approximately 100 feet from the UPRR tracks
LT-3	77 dBA	Approximately 85 feet southwest of the East 12th Street centerline on the 26th Avenue centerline, 12 feet above grade
LT-4	77 dBA	Approximately 55 feet southwest of the East 12th Street centerline, 120 feet northwest of the 29th Avenue centerline, 12 feet above grade
LT-5	83 dBA	Approximately 30 feet northwest of the 29th Avenue centerline, 60 feet northeast of the UPRR centerline, 12 feet above grade
LT-6	76 dBA	Approximately 75 feet southwest of the 12th Street centerline, 30 feet southeast of the Derby Avenue centerline, 12 feet above grade
LT-7	79 dBA	Approximately 115 feet northeast of the UPRR centerline, 25 feet northwest of the Derby Avenue centerline, 12 feet above grade

LT-1 and LT-2 are 24-hour measurements. LT-3 through LT-7 are 48-hour measurements.

SOURCE: Environmental Science Associates, 2005; Charles M. Salter Associates, Inc., June 2005.

Vibration

Ground vibration from passing trains consists of rapidly fluctuating motions or waves, which are also measured in decibels. The abbreviation “VdB” is used in this document for vibration decibels to avoid confusion with sound decibels. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate by a few ten-thousandths to a few thousandths of an inch. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance. High frequency vibrations reduce much more rapidly than low frequencies, therefore, low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also affect the amplitude of vibration over long distances. When vibration encounters a building, a ground-to-foundation coupling loss will usually reduce



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0 250

Feet

SOURCE: MBH Architects, 2007; ESA, 2007

Figure IV.E-1
Existing Noise Measurement Locations
(2005)

the overall vibration level, however, under certain circumstances, the ground-to-foundation coupling may also amplify the vibration level due to the structural resonances of the building's floors and walls.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings may be perceived as motion of building surfaces or rattling of windows, items on shelves, and pictures hanging on walls. Vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as ground-borne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when the structure and the source of vibration are connected by foundations or utilities, such as sewer and water pipes.

Table IV.E-2 lists some typical levels of vibration from various vibration sources.

Based on 2005 measures conducted by Charles M. Salter Associates, Inc., at the project site at setback distances of 130 feet, 85 feet and 50 feet from the centerline of the tracks, existing vibration levels are 73 to 82 dB, respectively. Acceleration levels due to groundborne vibration were recorded on digital tape at each setback distance and later analyzed to quantify the vibration levels at the respective setbacks. During the monitoring, three train pass-bys were measured.

Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication; physiological and psychological stress; and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive.

TABLE IV.E-2
TYPICAL LEVELS OF GROUNDBORNE VIBRATION

Human/Structural Response	Velocity Level (VdB)	Typical Events (50 foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment
	95	Heavy Tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading television subtitles or computer screen	90	
	85	Commuter rail, upper range
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, frequent events	75	Commuter rail, typical Bus or truck over bump or on rough roads
	70	Rapid transit, typical
Approximate human threshold of perception to vibration	65	Buses, trucks and heavy street traffic
	60	
	55	Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	

"Infrequent Events" is defined as fewer than 70 vibration events per day. This category includes most commuter rail systems. "Frequent Event" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, 2006.

A variety of heavy and light industrial uses, commercial, retail, civic, and residential uses surround the project site. The residential neighborhoods of Jingletown, Rancho San Antonio, St. Elizabeth, and the Fruitvale surround and encompass the project area. The Caesar Chavez Education Center is located across East 12th Street from the project site.

Regulatory Setting

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities. Noise issues relevant to the proposed project are addressed in Title 24 of the *California Code of Regulations*, City of Oakland General Plan policies, and the Oakland Noise Ordinance standards.

State of California

State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in *California Code of Regulations*, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior sources, the noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room and, where such units are proposed in areas subject to noise levels greater than DNL 60 dBA, require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard. If the interior noise level depends upon windows being closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment. In Oakland, as in most jurisdictions, Title 24 standards are enforced through the building permit application, review, and inspection process.

City of Oakland

The Oakland General Plan contains guidelines for determining the compatibility of various land uses with different noise environments (City of Oakland, 2005). The Noise Element recognizes that some land uses are more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. The City uses state noise guidelines for judging the compatibility between various land uses and their noise environments (City of Oakland, 2005). For multifamily residential land uses, the guidelines indicate that a noise environment of DNL 60 dBA or less is "normally acceptable," while a noise environment between DNL 60 and 70 dBA is considered "conditionally acceptable" and DNL 70 to 75 dBA is "normally unacceptable." Noise environments of DNL greater than 75 dBA are considered "clearly unacceptable" for residential uses. For transient lodging such as hotels and motels, a noise environment of DNL 65 dBA or less is considered normally acceptable, a noise environment between DNL 65 and 75 dBA is considered conditionally acceptable and DNL 75 to 80 dBA is "normally unacceptable." For commercial and office uses, which are generally less noise-sensitive, a noise environment of DNL 70 dBA or less is considered "normally acceptable," while a noise environment between DNL 67 and 77 dBA is considered "conditionally acceptable."

In this context, "normally acceptable" is defined as satisfactory for the specific land use, assuming that normal conventional construction is used in buildings. "Conditionally acceptable" means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh-air supply systems or air conditioning, will normally suffice. "Normally unacceptable" means that new construction or development should generally be discouraged. If new construction or development does proceed,

a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

The Noise Element of the General Plan contains the following goals, which the city desires to achieve by implementing the Noise Element:

- To protect Oakland's quality of life and the physical and mental well-being of residents and others in the City by reducing the community's exposure to noise; and
- To safeguard Oakland's economic welfare by mitigating noise incompatibilities among commercial, industrial and residential land uses.

Goals form the basis for policies, which are less general than goals, and identify specific areas in which the city will direct efforts in order to attain its goals. These policies are listed below:

> *Policy 1:* Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.
>
> *Policy 2:* Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.
>
> *Policy 3:* Reduce the community's exposure to noise by minimizing the noise levels that are *received* by Oakland residents and others in the City. (This policy addresses the *reception* of noise whereas Policy 2 addresses the *generation* of noise.)

The City of Oakland also regulates noise through enforcement of its Noise Ordinance, which is found in Section 17.120 of the Oakland Planning Code. The Noise Ordinance regulates only operational noise from stationary sources; cities and counties do not have regulatory authority over noise from mobile sources (transportation noise). Transportation noise is regulated at the state and federal level by noise limits placed on vehicle manufacturers. **Table IV.E-3** presents maximum allowable receiving noise standards applicable to long-term exposure for residential and civic land uses. The Noise Ordinance states that if the measured ambient noise level exceeds the applicable noise level standard in any category, then the stated applicable noise level shall be adjusted so as to equal the ambient noise level. **Table IV.E-4** presents noise level standards that apply to temporary exposure to short- and long-term construction noise. In this context, short-term refers to construction activity lasting less than 10 days, while long-term refers to construction activities lasting greater than 10 days.

Alameda County Airport Land Use Commission and the Federal Aviation Administration

The Alameda County Airport Land Use Plan (ALUP) developed by the Airport Land Use Commission of Alameda County has adopted Noise Impact Zones for the Oakland International Airport. Noise Impact Zones are areas where exposure to aircraft noise would be above the levels acceptable pursuant to the state noise guidelines for judging the land use compatibility of a site. Noise Impact Zones ensure that new development in the vicinity of an airport would not be

incompatible with existing and projected noise from airport operations. The project site would be located outside the 65-dBA contour for the Oakland International Airport and would therefore not be located within the Airport's Noise Impact Zone. The project would be located within the ALUP's Height Referral Area, as discussed in more detail in Section IV.A, *Land Use, Plans, and Policies*.

TABLE IV.E-3
CITY OF OAKLAND OPERATIONAL NOISE STANDARD AT RECEIVING PROPERTY LINE, DBA[a]

Receiving Land Use	Cumulative Number of Minutes in One-Hour Time Period[b]	Maximum Allowable Noise Level (dBA)	
		Daytime 7:00 a.m. to 10:00 p.m.	Nighttime 10:00 p.m. to 7:00 a.m.
Residential, School, Child Care, Health Care, or Nursing Home, and Public Open Space, or similar sensitive land use	20	60	45
	10	65	50
	5	70	55
	1	75	60
	0	80	65
		Anytime	
Commercial	20	65	
	10	70	
	5	75	
	1	80	
	0	85	
		Anytime	
Manufacturing, Mining, and Quarrying	20	70	
	10	75	
	5	80	
	1	85	
	0	90	

[a] These standards are reduced 5 dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

[b] Lx represents the noise level that is exceeded X percent of a given period. Lmax is the maximum instantaneous noise level. For example, "20 minutes in an hour" is equivalent to the $L_{33.3}$, which is a noise descriptor identifying the noise level exceeded one-third (33.3 percent) of the time. Likewise, "10 minutes in an hour," "5 minutes in an hour," and "1 minute in an hour" are equivalent to the $L_{16.7}$, $L_{8.3}$, and $L_{1.7}$, respectively. L_{max}, or maximum noise level, represents the standard defined in terms of "0 minutes in an hour."

SOURCE: Oakland Noise Ordinance No. 11895, 1996

Federal Transit Administration Vibration Guidelines

Transit systems, including light and heavy rail, are potential sources of substantial ground vibration depending on distance, the type and speed of trains, and the type of track. The Federal Transit Administration (FTA) of the U.S Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with rapid transit projects. The FTA vibration standards for uses proposed by the project are listed in **Table IV.E-5**.

TABLE IV.E-4
CITY OF OAKLAND CONSTRUCTION NOISE STANDARDS AT RECEIVING PROPERTY LINE, dBA[a]

Receiving Land Use	Maximum Allowable Noise Level (dBA)	
	Weekdays 7:00 a.m. to 7:00 p.m.	**Weekends 9:00 a.m. to 8:00 p.m.**
Short-Term Operation (less than 10 days)		
Residential	80	65
Commercial, Industrial	85	70
Long-Term Operation (more than 10 days)		
Residential	65	55
Commercial, Industrial	70	60

[a] If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

SOURCE: Oakland Noise Ordinance No. 11895, 1996

TABLE IV.E-5
FTA GROUNDBORNE VIBRATION CRITERIA, dB

Receiving Land Use Category	Groundborne Vibration Impact Limits
Residential	72 dB
Commercial Retail [a]	84 dB

NOTE: FTA Guidelines are independent of number of daily train pass-bys.
[a] The most similar category to "commercial retail use is "office" as identified by FTA.

SOURCE: U.S. Department of Transportation, Federal Transit Administration, 2006.

Impacts and Mitigation Measures

Significance Criteria

The City of Oakland considers a project to have a significant impact on the environment if it would:

1. Expose persons to or generate noise levels in excess of standards established in the Oakland general plan or applicable standards of other agencies (e.g., OSHA);

2. Violate the City of Oakland Noise Ordinance regarding operational noise (Oakland Planning Code Section 17.120.050) (shown in **Table IV.E-3)**;

3. Violate the City of Oakland Noise Ordinance regarding construction noise (shown in **Table IV.E-4**), except if an acoustical analysis is performed and all noise-related Standard Conditions of Approval imposed;

4. Violate the City of Oakland Noise Ordinance (Oakland Municipal Code Section 8.18.020) regarding nuisance of persistent construction-related noise;

5. Create a vibration which is perceptible without instruments by the average person at or beyond any lot line containing vibration-causing activities not associated with motor vehicles, trains, and temporary construction or demolition work, except activities located within the (a) M-40 zone or (b) M-30 zone more than 400 feet from any legally occupied residential property (Oakland Planning Code Section 17.120.060);

6. Generate interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);

7. Result in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

8. Conflict with state land use compatibility guidelines for all specified land uses for determination of acceptability of noise (Source: State of California, Governor's Office of Planning and Research, *General Plan Guidelines*, 2003);

9. Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels; or

10. Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels.

Noise from project-related traffic is not regulated by the local general plan and noise ordinance. The State of California establishes noise limits for vehicles licensed to operate on public roads. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials. Therefore, the significance of increase in noise levels due to project traffic has been evaluated based on Criterion 7 listed above. For long-term operational impacts, such as mechanical noise from stationary sources, Oakland Noise Ordinance standards, as presented in **Table IV.E-3**, would apply to the proposed project. Therefore, based on Criteria 1 and 2 listed above, operational noise from stationary sources that would exceed the values presented in **Table IV.E-3** would result in a significant impact to the noise environment. The significance of temporary increases in ambient noise levels is evaluated based on Criteria 3 and 4 listed above. For land use compatibility impacts (noise impacts of the environment on the proposed project occupants), the land use compatibility categories published in the State of California General Plan Guidelines referenced in Criterion 8 listed above would apply to the proposed project. Impacts from exposure of future occupants of the project site to groundborne vibration from Amtrak and freight trains along the UPRR tracks are evaluated using Criterion 5.

Project Impacts

Construction Noise

Impact NOI-1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity. (Potentially Significant)

Project construction would involve the eventual demolition of all existing buildings at the project site and new construction of 810 units, of which 763 would be condominiums and 47 would be townhomes; approximately 25,950 square feet of commercial space; and 1,121 parking spaces in six new buildings that would be constructed in six phases. Construction-related activities would increase ambient noise levels in the project vicinity over the duration of construction. Construction-related noise levels at and near locations on the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. The effect of construction noise would depend upon the level of construction activity on a given day and the related noise generated by that activity, the distance between construction activities and the nearest noise-sensitive uses, and the existing noise levels at those uses.

Table IV.E-6 shows typical ranges of noise levels generated by construction of residential and commercial buildings. **Table IV.E-7** shows noise levels generated by individual construction equipment. As shown in **Table IV.E-6**, the noisiest phase of construction would be during pile driving, which could generate noise levels of approximately 90-105 L_{eq} at 50 feet. Excavation and exterior finishing may also generate a substantial amount of noise. The main noise sources associated with excavation are the operation of excavators removing material and trucks hauling excavated materials away. The main noise sources associated with exterior finishing would be operation of concrete mixers and pumps for application of stucco material to the building exterior.

As noted above, noise from construction activity generally attenuates (decreases) at a rate of 6 to 7.5 dBA per doubling of distance. Construction associated with the project could take place as close as 150 feet from the nearest existing sensitive receptors along East 12th Street. **Figure IV.E-2** shows the distances from the project site to sensitive receptors nearby. Is it assumed that noise-generating construction activities could occur anywhere on the site. It is not yet known whether pile driving would be required as part of construction of the project. If pile driving is used, conservatively assuming an attenuation of 6 dBA per doubling of distance, it could generate noise levels of 80 to 95 dBA, Leq at these receptors. At noise levels above 85 dBA, normal conversation is extremely difficult. Other noise-sensitive uses located within

TABLE IV.E-6
RANGES OF TYPICAL CONSTRUCTION ACTIVITY NOISE LEVELS FOR RESIDENTIAL AND COMMERCIAL USES

Phase	Noise Level ($L_{eq\ in}$ dBA)
Ground Clearing	83 - 84
Excavation	71 - 89
Foundations	77 - 81
Erection	65 - 87
Exterior Finishing	72 - 89
Pile Driving	90-105

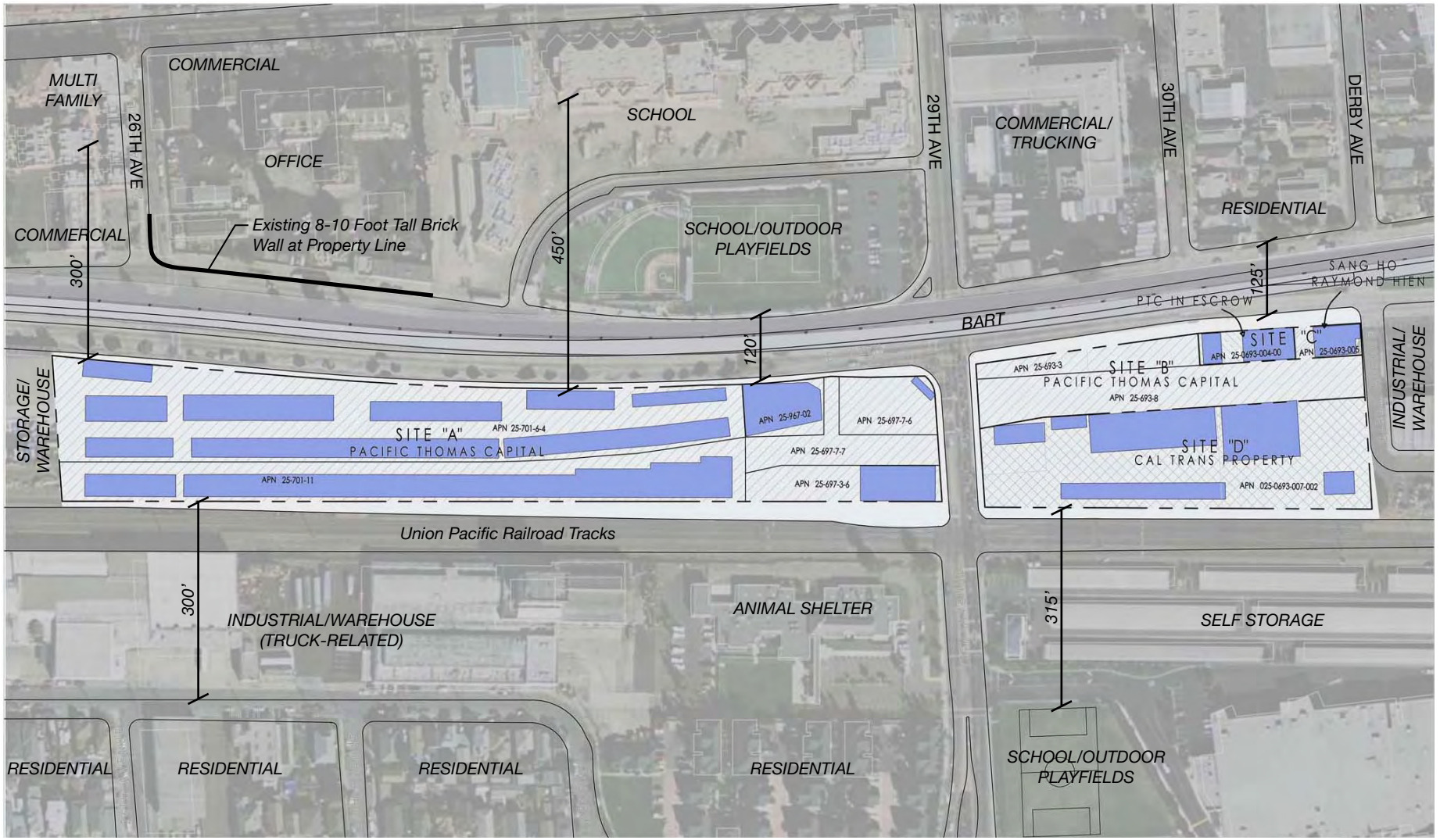
[a] Estimates correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase and 200 feet from the other equipment associated with that phase.

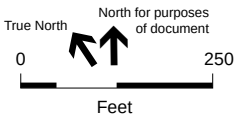
SOURCE: U.S. Environmental Protection Agency, Construction Noise Control Technology Initiatives, http://www.nonoise.org/epa/Roll5/roll5doc22.pdf, September 1980.

TABLE IV.E-7
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level (dBA) @ 50 Feet
Earthmoving	
Front Loader	79
Backhoe	85
Dozer	87
Tractor	88
Scraper	88
Grader	85
Paver	89
Materials Handling	
Concrete Mixer	85
Concrete Pump	82
Crane	83
Stationary	
Pump	76
Generator	78
Impact	
Pile Driver	101
Jack Hammer	85
Rock Drill	96
Pneumatic Tools	85
Other	
Framing	95
Saw	78
Vibrator	76

SOURCE: U.S. Environmental Protection Agency, Construction Noise Control Technology Initiatives, http://www.nonoise.org/epa/Roll5/roll5doc22.pdf, September 1980; Charles M. Salter Associates Inc., 2005





SOURCE: MBH Architects, 2007; ESA, 2007

Figure IV.E-2
Distance from Project Site to Sensitive Noise Receptors

approximately 1,600 feet of pile-driving activity could also be substantially affected, depending on the presence of intervening barriers or other insulating materials. Intermittent noises such as pile-driving noise are more disturbing to many people than typical construction noise.

Table IV.E-8 shows noise levels at receptors adjacent to the project site during different phases of construction.

TABLE IV.E-8
ESTIMATED CONSTRUCTION NOISE LEVELS AT ADJACENT USES

		Earthwork			
	Distance (feet)	No Barrier (dBA)	With 8′ Barrier (dBA)	Drilled Pile Driving (dBA)	Framing: Floor Two and Above (dBA)
Commercial – Across from NW Corner of Project Site	80	71 to 76	66 to 71	81	91
Residential – Across East 12th Street	215	63 to 68	58 to 63	73	83
School – Across East 12th Street	215	63 to 68	58 to 63	73	83

SOURCE: Charles M. Salter Associates, Inc., 2006

These predicted noise levels would exceed the standards of the Oakland Noise Ordinance, which states that, for residential receptors, the maximum allowable receiving noise for weekday (Monday through Friday, 7:00 a.m. to 7:00 p.m.) construction activity of greater than 10 days duration is 65 dBA. For construction activity of 10 days or less, the residential receiving standard is 80 dBA. Consequently, the noisiest phases of construction would have the potential to exceed the construction noise standard of the City of Oakland's Noise Ordinance. Without mitigation, this impact, though temporary, would be considered significant. As construction activities would be likely to occur during daytime hours, construction noise would also be disruptive to local businesses. However, the analysis focuses on impacts to nearest residential uses as they are considered to be more sensitive to noise than other commercial and industrial uses surrounding the project site.

The proposed project would be subject by the City of Oakland to the following standard conditions of approval throughout the duration of construction activity. Specific recommendations identified in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* prepared by Charles Salter Associates, Inc. (2005) are also required and incorporated into the standard conditions below. Based on the significance criteria used by the City of Oakland, compliance with the Noise Ordinance is achieved if the following measures are implemented. Implementation of the following standard conditions would also reduce impacts to

on-site receptors during construction, and as a result, project construction impacts would be considered less than significant.

Standard Condition NOI-1a: The project applicant shall require construction contractors to limit standard construction activities as follows, ongoing throughout demolition, grading, and/or construction:

a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday for all other cases. Pile driving and/or other extreme noise generating activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c) Construction activity shall not occur on Saturdays, with the following possible exceptions:

- Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

- After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e) No construction activity shall take place on Sundays or Federal holidays.

f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

Also, the following project-specific recommendation identified in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter Associates, Inc., 2005) is consistent with, and incorporated as part of Standard Condition NOI-1a:

g) During mobilization of earth moving equipment near noise-sensitive areas, equipment operations shall be performed during the peak traffic hours, to the extent feasible and in accordance with the Oakland Noise Ordinance. Based on the on-site noise measurements conducted for this EIR, traffic noise is fairly constant between the hours of 8 a.m. and 6 p.m.

Standard Condition NOI-1b: To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to City review and approval, which includes the following measures, ongoing throughout demolition, grading, and/or construction:

a) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

b) Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.

c) Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible.

d) If feasible, the noisiest phases of construction shall be limited to less than 10 days at a time.

Also, the following project-specific recommendation identified in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter Associates, Inc., 2005) is consistent with, and incorporated as part of Standard Condition NOI-1b:

e) Temporary noise barriers shall be incorporated at the site shall and shall be:

- a minimum of three pounds per square foot (e.g., wood, steel) and have no visible cracks or gaps, including at the base;
- located and of a height (generally up to 8-feet tall) to break any line-of-sight between the receivers and equipment;

f) Equipment and staging areas shall be positioned closest to the UPRR tracks, avoiding as much as possible the southwest corner of East 12th Street and 29th Avenue and the northeast corner of East 12th Street and Derby Avenue, which are closest to residential, educational and outdoor recreational uses. Where

possible, noise barriers shall be erected around stationary noise generating operations.

g) "Quiet" procedures shall be used, wherever feasible, such as:

- use of drills rather than impact equipment;
- "quiet" gasoline or electric-powered compressors;
- electric rather than gasoline or diesel-powered forklifts;
- welded rather than bolted steel connections to reduce the use of impact wrenches;
- pre-cut metal decks and metal studs off-site to minimize on-site sawing;
- use of core bits instead of hammer drilling; and
- use concrete screws instead of powder-actuated fasteners.

Standard Condition NOI-1c: To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90 dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant.

Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of the following measures. These attenuation measures shall include as many of the following control strategies as feasible, ongoing throughout demolition, grading, and/or construction:

a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

b) Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d) Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example; and

e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.

a) **Standard Condition NOI-1d: Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the City Building Services Division a list of measures to respond to and track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction. These measures shall include the following:** A procedure and phone numbers for notifying the City Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c) The designation of an on-site construction complaint and enforcement manager for the project. As recommended by the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter Associates, Inc., 2005), the manager shall act as a liaison between the project and its neighbors. The manager's responsibilities and authority shall include the following:

- familiarity with the project and construction schedule, including attending weekly construction meetings;
- an active role in monitoring project compliance with respect to noise;
- ability to reschedule noisy construction activities to reduce effects on surrounding noise sensitive receivers;
- Site supervision of all potential sources of noise (e.g., material delivery, shouting, debris box pick-up and delivery) for all trades; and
- Intervening or discussing mitigation options with contractors.

d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

Significance after Implementation of Standard Conditions: Less than Significant.

Project Operational Noise

Impact NOI-2: Noise from project-generated traffic and other operational noise sources, such as mechanical equipment, truck loading/unloading, etc., would not exceed the Oakland Noise Ordinance standards and impact nearby sensitive receptors. Less than Significant)

Operational activities associated with the proposed project that would generate noise include increased vehicular circulation on the local roadway network, and the operation of mechanical equipment such as HVAC equipment and noise from commercial activities proposed at the project site.

Motor vehicle trips generated by proposed residential and commercial uses on the project site would be distributed on the local road network and would increase noise levels along the affected roads. To assess the significance of the increase in traffic noise due to the project (5 dBA or more permanent increase in ambient noise levels), roadside p.m. peak-hour noise levels have been estimated for existing conditions (generally 2005), 2010, and 2025 (cumulative analysis year), with and without project, along those roadways most affected by the project. Noise modeling using the Federal Highway Administration's Noise Prediction Model was conducted for roadway segments on East 12th Street, 29th Street and 30th Street using data prepared by Korve Engineering (2006). Results of the modeling effort are presented in **Table IV.E-9**. These segments were chosen for analysis as they were found to experience the greatest percentage increase in traffic due to the project. As a rule of thumb, a doubling in traffic would lead to a 3-dBA increase in traffic noise.

As seen from **Table IV.E-9**, the proposed project would not lead to an increase in traffic associated noise greater than the 5 dBA threshold over the existing total ambient noise level at any of the analyzed roadway segments under all analyzed scenarios. Since the maximum increase in ambient noise from the addition of project and cumulative traffic would about 3 dBA, this increase would barely be perceivable over the baseline total ambient noise level (also shown in **Table IV.E-9**). Therefore, the addition of project and cumulative traffic would not increase the total ambient noise level by 5 dBA or greater over existing ambient levels. This would be a less than significant impact. Further, it should be noted that a 5 dBA increase in traffic related noise would not directly translate to a 5 dBA increase in the total ambient noise environment. Traffic noise forms just one of the several noise sources that constitute the ambient noise environment around the project area.

Once operational, a major source of noise would be from the operation of the heating, ventilation and air conditioning (HVAC) systems of the project buildings. It is assumed that the majority of HVAC equipment to serve the project buildings would be located within the mechanical equipment wells on the roofs of the buildings and in parking structures, which may significantly

TABLE IV.E-9
TRAFFIC NOISE INCREASES ALONG LOCAL ROADWAYS IN THE PROJECT AREA

	Modeled Noise Level at 50 Feet From Roadway Centerline					
Street Segment	**Baseline**	**Baseline + Project**	**Change vs. Baseline**	**2010 Baseline**	**2010 + Project**	**Change vs. Baseline**
E. 12th Street						
East of 29th Ave.	65.2	65.4	+0.2	65.7	65.8	+0.6
West of 29th Ave.	65.5	66.0	+0.5	65.9	66.4	+0.9
East of 25th Ave.	65.8	65.9	+0.1	66.3	66.4	+0.6
West of 25th Ave.	66.0	66.0	+0.0	66.5	66.5	+0.5
East of Derby Ave.	65.2	65.3	+0.1	65.8	65.9	+0.7
West of Derby Ave.	65.3	65.5	+0.2	66.0	66.1	+0.8
Derby Avenue						
North of E. 12th Street	52.5	52.6	+0.1	53.0	53.1	+0.6
South of E. 12th Street	53.2	55.1	+1.9	53.8	55.5	+2.3
29th Street						
North of E. 12th Street	61.7	61.9	+0.2	62.1	62.3	+0.6
South of E. 12th Street	64.7	65.3	+0.7	65.1	65.7	+1.0
25th Street						
North of E. 12th Street	55.7	55.8	+0.1	56.2	56.2	+0.5
South of E. 12th Street	47.0	47.0	+0.0	47.4	47.4	+0.4

SOURCE: Environmental Science Associates, 2006; Korve Engineering, Inc., 2007.

reduce noise levels audible from off-site locations. All roof HVAC equipment is proposed to be visually and acoustically screened to reduce impacts. Roof parapets are proposed to be a minimum of 3.5 feet tall for flat portions of roof, and approximately 5 feet tall where the roof is sloped. Operation of HVAC equipment would be subject to the Noise Ordinance standards shown in **Table IV.E-3**. Provided that the equipment is designed and used in a manner that complies with those standards, the related noise impact to project residences and adjacent land uses would not be significant. The applicable design standard would be 45 dBA at adjacent sensitive land uses. Also, the HVAC equipment for commercial buildings would be operated primarily during the less noise sensitive daytime hours with higher background noise levels. For these reasons, noise from HVAC equipment would not be expected to significantly affect the noise environment at nearby land uses. Air handling equipment is mounted on the rooftops of many buildings in Oakland and operates without noise impacts to adjacent buildings. The equipment for the proposed project is anticipated to be of recent manufacture and be compliant with the operational restrictions of the Oakland Noise Ordinance. Noise levels from the activity, property, or any

mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

Additionally, there would be operational noise related to the arrival, departure, and loading/unloading of goods from delivery trucks associated with the project's proposed commercial uses. This noise would be less than significant as it would primarily take place during the less noise sensitive daytime hours. Loading facilities for non-freight vehicles are proposed within the parking levels of the buildings on each site. Loading docks for freight vehicles are located on Derby Avenue and 29th Avenue, not adjacent to nearby sensitive uses. Also, the presence of intervening structures and the distance of the commercial uses to the existing sensitive receptors would attenuate these noise levels to a less than significant level.

Mitigation: None Required.

Impact NOI-3: The project would place noise-sensitive multifamily residential uses in a noise environment characterized as "clearly unacceptable" for such uses by the City of Oakland. (Potentially Significant)

Current project drawings indicate that the nearest facades fronting East 12th Street and the BART corridor would be setback from the East 12th Street centerline by approximately 55 and 85 feet (see **Figure IV.E-1**). Based on the noise measurements conducted, the noise level at this setback ranges from 76 to 77 dBA, DNL. These noise levels would exceed the City's goal for indoor noise exposure.

The nearest project buildings would be setback by approximately 75 feet from the railroad track centerline. Based on the noise measurements, noise levels at this setback range from 81 to 82 dBA, DNL. These noise levels would also exceed the City's goal for indoor noise exposure.

The multifamily residences would be subject to Title 24 of the *California Code of Regulations*, which requires an interior noise standard of DNL 45 dBA in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard. To meet the interior standard of DNL 45 dBA, a noise level reduction of up 38 dBA would be required from the exterior façades of the buildings. To allow the project to meet the City and state interior noise requirement of 45 dBA, DNL in habitable rooms of residential dwellings, sound-rated assemblies would be required at the exterior facades of project buildings.

The project shall implement the following standard condition, which is supplemented with recommendations prescribing STC[3] ratings identified in the *2005 Fruitvale Gateway Construction Noise and Vibration Feasibility Study* conducted by Charles M. Salter & Associates Inc. to reduce indoor noise exposure to within City and State standards; Implementation would ensure that interior noise levels are reduced to 45 dB and are less than significant.

Standard Condition NOI-3a: If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls) shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer. Final recommendations for sound-rated assemblies will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phase. As recommended in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter Associates, Inc., 2005), specific consideration shall be given to window size, degree of sound insulation of exterior walls, which can be increased through staggered- or double-studs, multiple layers of gypsum board, and incorporation of resilient channels.

Standard Condition NOI-3b: Sound rated walls, window, and exterior doors shall be installed on project building facades as follows, subject to review by a qualified acoustical engineer pursuant to Standard Condition NOI-3a, and as recommended in the *Fruitvale Gateway Construction Noise and Vibration Feasibility Study* (Salter Associates, Inc., 2005):

Building Façade Location	Mitigation STC[a] Rating (50 % Window Area)
North façades along East 12th Street / BART	STC 38 - 43
West façades along 25th Avenue	STC 34 – 39
East and West facades along 29th Avenue	STC 34 – 39
East façades along Derby Avenue	STC 40– 45
South facades along UPRR	STC 45+
Facades interior to the project site	STC 28 - 33
	Mitigation STC[a] Rating (90 % Window Area)
North façades along East 12th Street / BART	STC 40 - 45
West façades along 25th Avenue	STC 37 - 42
East and West facades along 29th Avenue	STC 37 - 42
East façades along Derby Avenue	STC 42 - 47
South facades along UPRR	STC 50+
Facades interior to the project site	STC 31 - 36

[a] Sound Transmission Class (STC) – A single figure rating standardized by ASTM and used to rate the sound insulation properties of building partitions.

Significance after Implementation of Standard Conditions: Less than Significant.

3 Sound Transmission Class (STC) – A single figure rating standardized by ASTM and used to rate the sound insulation properties of building partitions. The STC rating is derived from laboratory measurements of a particular building element and as such is representative of the maximum sound insulation. Increasing STC ratings correspond to improved noise insulation.

Impact NOI-4: The project would place noise-sensitive publicly-accessible outdoor uses in a noise environment characterized as "clearly unacceptable" for such uses, as established by the Noise Element of the Oakland General Plan. (Potentially Significant)

Oakland's consideration of land use compatibility impacts (noise impacts of the environment on the proposed project occupants) in accordance with State Guidelines also considers outdoor noise exposure. While the project would provide a mix of private and common usable open space areas for project residents and tenants, it also proposes usable open space area that would be accessible to the public, which the City considers in light of the State Guidelines and the General Plan. As shown in **Figure III-8a**, the project proposes approximately 8,000 square feet of publicly-accessible linear open space and children's park at grade level between Sites II and III.

Given the high ambient noise level at the project site, noise levels at this at-grade open space area are expected to exceed the maximum allowable receiving noise standards for open space areas, which the State Guidelines and City of Oakland establish as up to 70 dBA. To meet this level, an outdoor noise level reduction of up 5 dBA would be required, based on the 72 to 77 dBA DNL range that exists on the site in the area where this open space is proposed (see Table IV.E-1 and Figure IV.E-1).

Noise reduction by as much as 15 dBA would occur with the proposed site design. Project buildings themselves – along East 12th Street and the railroad tracks – would act as noise barriers and break the line of sight (primarily from the railroad tracks) between the noise sources and the proposed publicly-accessible open space. To further reduce the potential exposure of proposed publicly-accessible open space to existing noise levels, the project shall implement the following standard condition:

> **Standard Condition NOI-4: To comply with the land use compatibility requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable outdoor noise levels at publicly-accessible open spaces, noise reduction in the form of specific layout of buildings on the site and, if warranted, barrier walls along the south façade of the site to break the line of site to/from the UPRR adjacent to the south may be used, based on recommendations of a qualified acoustical engineer.**

Significance after Implementation of Standard Condition: Less than Significant.

Impact NOI-5: The project would expose sensitive residential uses to groundborne vibration from trains passing by on the UPRR tracks. (Potentially Significant)

The 2006 FTA Guidelines regarding transit noise and vibration state that the ground velocity due to vibration at residential land uses should not exceed 72 dB, independent of the number of daily train pass-bys, and the ground velocity due to vibration for commercial land uses should not exceed 84 dB, independent of the number of daily train pass-bys (**Table IV.E-5**). In addition, according to the FTA, the threshold of human perception to vibration is approximately 65 dB,

while 72 dB is "barely perceptible," and 80 dB is "distinctly perceptible." The guideline levels identified by the FTA also include adjustment for vibration propagating from the ground surface, through the building, and into residential floors. The proposed project would construct three-story townhomes, four multifamily buildings (7 to 12 stories total), and two towers (15 to 16 stories total). At least the first two levels of each of the multifamily and tower buildings would be parking. Since the building design is still in the preliminary phase and the FTA does not include adjustments for a wide array of buildings types, the analysis conducted for this EIR assumes a conservative value of estimated vibration level losses at the foundation, based on the FTA levels for "Large Masonry Building on Piles" or "1 to 2 story residential." .

Based on the measurements taken on the project site, the maximum vibration level during the freight pass-by was 79 dB at 85 feet and 73 dB at 130 feet from the centerline of the tracks. These vibration levels correspond to levels above the threshold of human perception. These vibration levels would be above the FTA's standard for residential uses of 72 dB and would therefore lead to a significant impact. The worst case would be 79 dB at 85 feet from the centerline of the train tracks, therefore, mitigation that would reduce vibration levels by at least 7 dB is required. The currently proposed two levels of parking would be sufficient mitigation at a setback of 70 feet from the railroad track centerline, where the closest project buildings would be located.

The *2007 Gateway Community Groundborne Vibration* analysis study conducted by Charles M. Salter & Associates Inc. identified methods to reducing groundborne vibration at the project site with the project. On option involves the addition of a parking level which would reduce vibration levels to meet the FTA threshold, however, this option is infeasible primarily because it would provide excess parking for the project. Feasible methods to reduce the groundborne vibration levels at the project site to less-than-significant levels are presented in the following standard condition:

Standard Condition NOI-5a: The project applicant shall incorporate special building methods to reduce groundborne vibration being transmitted into project building structures containing residential uses. Potential methods include the following:

- Isolation of foundation and footings using resilient elements such as rubber bearing pads or springs, such as a "spring isolation" system that consists of resilient spring support that can support the podium or residential foundations. The specific system shall be selected so that it can properly support the structural loads, and provide adequate filtering of ground-borne vibration to the residences above.

- Trenching, which involves excavating soil between the railway and the project so that the vibration path is interrupted, thereby reducing the vibration levels before they enter the project's structures. Since the reduction in vibration level is based on a ratio between trench depth and vibration wavelength, additional measurements shall be conducted to determine the vibration wavelengths affecting the project. Based on the resulting measurement findings, an adequate trench depth and, if required, suitable fill shall be identified (such as foamed styrene packing pellets [i.e., Styrofoam] or low-density polyethylene). Since

trench depths required to mitigate groundborne vibration generated by railway operations can be significant (e.g. greater than 30-feet), the project sponsor shall submit the for City review and approval any trench proposal.

- The foundation system or other equivalent mechanism (such as trenching) shall effectively reduce groundborne vibration level at residential areas on the project site that are 1) not above at least two parking levels *and* 2) less than 70 feet from the nearest train track centerline, by at least 7 dB or other increment to ensure vibration levels that do not exceed the maximum FTA threshold of 72 dB for residential use.

Standard Condition NOI-5b: A qualified acoustical consultant shall be retained during the design phase of the project to comment on structural design as it relates to mitigating groundborne vibration at the project site.

Significance after Implementation of Standard Condition: Less than Significant.

Cumulative Impacts

Impact NOI-6: The proposed project, together with anticipated future development included in the Oakland cumulative growth scenario, could result in long-term traffic increases that could cumulatively increase noise levels. (Less than Significant)

Noise from cumulative development in the area would primarily occur from increases in motor vehicle traffic. Cumulative traffic noise levels in the project area were estimated using traffic data provided by Korve Engineering and are presented in **Table IV.E-8**. As shown in the table, the addition of project and cumulative traffic would not increase traffic noise levels by greater than 5 dBA along the analyzed roadway segments. Therefore, this increase would not be perceptible over the total noise levels that were monitored along these segments. Traffic noise forms one component of the total noise environment. An increase in traffic noise of 5 dBA would not necessarily translate to an increase of 5 dBA in the total ambient noise environment. When the resultant noise levels from project and cumulative traffic along these segments are logarithmically added to the existing monitored noise levels, the increase would be less than 5 dBA and hence, less than significant.

Mitigation: None Required.

References – Noise

Airport Land Use Commission of Alameda County, *Alameda County Airport Land Use Plan*, July 16, 1986.

Caltrans, Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998.

Charles M. Salter & Associates, Inc., *Fruitvale Gateway Project - Environmental Noise and Vibration Feasibility Study*, June 2005.

Charles M. Salter & Associates, Inc., *Fruitvale Gateway Construction Noise Analysis*, November 2006.

Charles M. Salter & Associates, Inc., *Gateway Community Groundborne Vibration* Analysis, July 2007.

City of Oakland, *City of Oakland General Plan - Noise Element*, June 2005.

City of Oakland, Planning and Zoning Division, *Standard Conditions of Approval – A list of Condition of Approval Templates for projects proved under the Oakland Planning Code*, October 2003.

Governor's Office of Planning and Research, *CEQA Guidelines*, January 2001.

Illingworth & Rodkin, *City of Oakland Noise Element Update Environmental Noise Background Report*, December 16, 2004.

U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact assessment, FTA-VA-90-1003-06, May 2006.

U.S. Department of Housing and Urban Development, *Noise Assessment Guidelines*, April, 1995.

U.S. Environmental Protection Agency, *Noise from Construction Equipment and Building Operations, Building Equipment, and Home Appliances*, December 1971.

F. Hazardous Materials

The following section discusses hazardous materials issues associated with existing and past land uses at the project site, project construction, and proposed land uses. The discussion includes an evaluation of past chemical use and potential buildup of associated toxic substances in soil and groundwater due to past onsite and offsite storage and accidental release of petroleum products, potential hazardous material issues during project construction, and the potential for the project to generate and discharge hazardous materials and/or hazardous wastes. This section identifies potential project impacts and appropriate mitigation measures, as necessary, and describes the regulatory process for remediation of the site.

Introduction

Under federal and state laws, materials, including wastes, may be considered hazardous if they are specifically listed by statute as such or if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.[1] In some cases, past industrial or commercial activities on a site could have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. Federal and state laws require that hazardous materials be specially managed and that excavated soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels, be specially managed, treated, transported, and/or disposed of as a hazardous waste. The California Code of Regulations, Title 22, Sections 66261.20-24 contain technical descriptions of characteristics that would cause a soil to be designated a hazardous waste. The California regulations comply with the federal regulations and in most cases, are more stringent.

Environmental Setting

Geology and Groundwater

Geologic maps of the project area indicate the project site is underlain by surficial alluvial fan and fluvial deposits of the Holocene (Graymer, 2000). More specifically, these deposits are Bay Mud deposits consisting of characteristically unconsolidated, dark plastic clay and silty clay (Mission Geoscience, Inc., 1999).

The project site is located within the East Bay Plain Subbasin of the greater Santa Clara Valley Groundwater Basin. The East Bay Plain is bounded by the San Pablo Bay to the north, Hayward to the south, San Francisco Bay to the west, and the Hayward Fault to the east (California Department of Water Resources, 2004). According to the San Francisco Bay Regional Water

[1] State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

Quality Control Board (SF Bay RWQCB) Groundwater Committee, current uses of groundwater produced from the East Bay Plain, by beneficial use designation category, are: municipal and domestic water supply, industrial/process water supply, and agricultural water supply (SF Bay RWQCB Groundwater Committee, 1999). The regional direction of groundwater flow is generally southwestward toward San Francisco Bay. Shallow groundwater beneath the project site is hydraulically connected to the Bay; its flow direction is highly variable due to its perched nature within Bay Muds, and tidal fluctuation. Approximate depth to groundwater in the project site vicinity is 10 feet (Mission Geoscience, Inc., 1999).

Existing Site Characteristics

The project site consists of 12 parcels totaling approximately 9.7 acres of land. The ground surface in and around the project site is generally level and slopes gently southwest towards the Tidal Canal ("the Estuary") and San Francisco Bay. Existing structures at the project site are related to previous industrial and commercial land uses and include a self-storage facility, a commercial hardware store and lumber yard, a Caltrans South Oakland Maintenance Facility, and miscellaneous retail and commercial buildings. During a site reconnaissance conducted in February 2005, ESA staff observed the following:

- An above ground propane tank on the Tuffy's Ace Hardware and Lumber site;
- An underground petroleum pipeline owned by Kinder Morgan runs along the southern boundary of the project site between the project site boundary and the railroad tracks, within the railroad right-of-way.
- A power pole with at least one transformer runs southwest-northeast across the center of the project site near the East 12th Street and 29th Avenue intersection (TEC Accutite, 2001).

Surrounding Land Use

Surrounding land uses include urban-residential uses, public schools (Lazear Elementary School to the south, Cesar Chavez Education Center to the north, and ASCEND school to the east), the Fruitvale BART Station and the Fruitvale Transit Village to the east, and Fruitvale Station Shopping Center to the south. The area also includes industrial uses, including an Oakland Housing Authority maintenance facility and a car repair shop; and a variety of smaller retail and commercial businesses along International Boulevard and throughout the vicinity.

Historical Land Uses

Historical land uses on a project site can be important indicators of whether hazardous materials were likely used at or near a site and whether these hazardous substances may be present in the subsurface soil and groundwater at that location. Historical land uses at the project site were determined through a review of historical aerial photographs, topographical maps, and Sanborn Fire Insurance Maps.

Historically, the project site and vicinity were part of the agricultural township of Fruit Vale. The railroad tracks that border the southern portion of the project site was constructed in 1903. A former Western Pacific Railroad easement existed along the northern portion of the project site between 28th Avenue and 29th Avenue, continued east approximately 200 feet below East 12th Street, and exited the project site at the eastern boundary. Historically, railways have been known to be impacted by oil and grease, diesel, lead, creosotes,[2] and polychlorinated byphenols (PCBs[3]) (TEC Accutite, 2001). In the early 1900s, apart from several residences located on either side of 26th Avenue, the project site was largely undeveloped. By the 1950s several industrial warehouses and storage buildings had been constructed on the project site. Historical aerial photographs and Sanborn Fire Insurance Maps indicate the project site has been used for commercial and industrial land uses from the 1950s to the present.

While it is difficult to ascertain if historical land uses and ancillary uses resulted in releases of chemicals of concern to soil and groundwater, typical activities associated with historical land uses can provide clues about the types of contaminants that could potentially be present. Previous tenants at the site have included: a waterproof clothing manufacturer; a stove manufacturing plant complete with a full metal shop; a metal foundry; automobile repair shops; machine retail and repair shops; a hay and fuel facility; and other miscellaneous warehouses and retail shops. Based on historical land uses, it is possible that the project site may contain residual levels of heavy metals and/or petroleum hydrocarbons. A history of known tenants and activities at the project site, derived from historical Sanborn Maps dated between 1906 and 1969, is presented below in **TableIV.F-1**.

Soil and Groundwater Contamination

A preliminary site assessment, commonly referred to as a "Phase I" investigation, seeks to identify the presence or likely presence of hazardous materials at a project site based on the likelihood of existing releases, past releases, or a material threat of the release of hazardous materials into structures on the site or into the ground, groundwater, or surface water of the site. During the Phase I investigation, environmental professionals, among other things, research the site history, perform a regulatory database review and conduct a site reconnaissance for the site and surrounding area. A Phase I generally includes a review of potential offsite sources of contamination that may be of potential environmental concern due to their proximity to the project site. A Phase I also assesses whether such conditions warrant further investigation, such as subsurface soil and groundwater sampling. Such subsurface sampling is often, referred to as a "Phase II" investigation.

2 Creosote is a common wood preservative that is considered harmful to human health.

3 PCBs are persistent organic pollutants that have been used in capacitors and transformers, heat transfer fluids, hydraulic fluids, lubricating and cutting oils, and as additives in pesticides, paints, sealants, plastics, and retardants. PCBs were banned by the U.S. EPA in 1987 due to environmental and human health concerns.

TABLE F-1
TENANT HISTORY

Business Name	Relative Location on Project Site	Map Year(s) Indicated	Activities / Description of Structures
Southern Pacific RR	S boundary of the project site	1903, 1911, 1950, 1953, 1959, 1964, 1967, 1969	railroad tracks
Western Pacific RR	(1) Along the center of E 12th St to 28th Ave, then veering S below E 12th St and parallel to E 12th St; (2) 300 feet of RR spurs N and parallel to Southern Pacific RR at E portion of project site; (3) enters project site from the N between 28th Ave and 29th Ave and continues E approximately 200 ft below E 12th St and exists the project site at the E boundary	(1) 1911 (2) 1950, 1953, 1959 (3) 1950, 1953	railroad tracks
Gold Medal Waterproofing Company	SW corner of project site, at the corner of 25th Ave and Southern Pacific RR	1911	waterproof clothing manufacturing
Montgomery Ward & Co.	SE corner of 25th Ave and E 12th St (adjacent to project site)	1950, 1953	storage and warehousing operations
Park Stove Co.	(1) NW corner of 26th Ave and Southern Pacific RR; (2) SW corner of 26th Ave and E 12th St; (3) SE corner of 26th Ave and Southern Pacific RR; (4) S side of E 12th St east of 27th Ave	(1) 1950, 1953, 1959, 1964; (2) 1950, 1953, 1953; (3) 1950, 1953, 1959, 1964; (4) 1950, 1953, 1959, 1964	(1) stove and mat warehousing operations (2) crating and shipping operations, die making; (3) warehousing; (4) stove manufacturing, full metal shop, stamping, welding
Foundry (business name not identified)	S side of E 12th St between 27th Ave and 29th Ave	1950, 1953	metal foundry
Caltrans Highway Commission	E end of project site, between 29th Ave and Derby Ave, and between Southern Pacific RR and Western Pacific RR	1950, 1953, 1959, 1964, 1967, 1969	equipment yard and automobile maintenance, repair, and storage
Hay and fuel facility (business name not identified)	SE corner of E 12th St and Derby Ave	1950	fuel and hay yard, presumably for local agricultural operations
Drug warehouse (business name not identified)	S side of E 12th St opposite 30th Ave	1953, 1959, 1964	presumably for the storage or distribution of pharmaceutical drugs
Wholesale Liquors	S side of E 12th St west of 29th Ave	1959	wholesale liquor
Machine sales and service	SW corner of E 12th St and Derby Ave	1959, 1964, 1967	machine retail and service
Boat and auto service (business name not identified)	SW corner of 26th Ave and E 12th St	1964	storage facilities for boats and automobiles
Salvage Merchandise and Furniture	S side of E 12th St W of 29th Ave	1964	used furniture shop
Used auto shop (business name not identified)	SE corner of E 12th St and 29th Ave	1964	used automobile sales
Auto repair shop (business name not identified)	SW corner of E 12th St and Derby Ave	1967, 1969	automobile repair

SOURCE: Sanborn Library, LLC, 1903, 1911, 1950, 1953, 1959, 1964, 1967, 1969.

One Phase I and three Phase II investigations have been conducted for portions of the project site, as follows:

- *Phase I Environmental Site Assessment for 1111 29th Avenue, Oakland, California* (TEC Accutite, 2001);
- *Report of Phase II Subsurface Investigation, Union Pacific Railroad Property Parcel 12, Fruitvale-Derby Avenues, Oakland, California* (Mission Geoscience, Inc., 1999); and
- *Phase II Limited Soil Sampling and Analysis, Tuffy's Ace Hardware and Lumber, 1111 29th Avenue, Oakland, California* (Advance Soil Technology, Inc., 2001).
- *Phase II Subsurface Investigation, 1111 29th Avenue, Oakland, California* (TEC Accutite, 2002).

1111 - 29th Avenue

A Phase I investigation was prepared for 1111 - 29th Avenue by TEC Accutite in June 18, 2001 for the purpose of a real estate transaction. This property, located at the southwest corner of 29th Avenue and land owned by Union Pacific Railroad, is part of the project site and was most recently leased and occupied by Tuffy's Ace Hardware and Lumber. The Phase I was based on a site visit, interviews with the property owner and occupant, an environmental file review, and a review of City and County files. The assessment did not include any survey of asbestos, lead-containing materials, or radon, nor soil or groundwater sampling. The environmental assessment recommended that soil sampling and analysis be conducted at the location of an onsite aboveground storage tank (AST) containing kerosene to determine if residual hydrocarbons exist in shallow soils. Tuffy's Ace Hardware and Lumber previously dispensed kerosene from a 55-gallon storage drum situated on a 4-foot by 8-foot plywood and concrete stand, where the kerosene concentration now exists. No additional characteristics regarding hazardous materials were identified at 1111 - 29th Avenue in the Phase I investigation (TEC Accutite, 2001).

Subsequent soil and groundwater sampling and laboratory analysis was conducted at 1111 - 29th Avenue as part of a Phase II investigation prepared by Advance Soil Technology, Inc. (2001). The investigation included drilling borings at the site, collection of the subsurface soil and groundwater samples, and subsequent laboratory analysis. The purpose of the evaluation was to determine the existing soil conditions with respect to total petroleum hydrocarbons (TPH[4]) Gas / BTEX[5], TPH Diesel, Total Oil and Grease, volatile organic compounds (VOCs[6]), semi-volatile organic compounds (SVOCs), organochlorine pesticides,[7] PCBs, metals (lead and arsenic), CAM

4 TPH is defined as the measurable amount of petroleum-based hydrocarbon in a given medium represents a mixture of individual petroleum-based hydrocarbons. The TPH is not used as a direct indicator of risk to humans or the environment.

5 BTEX is an acronym for benzene, toluene, ethylbenzene, and xylene. This group of VOCs is found in petroleum hydrocarbons, such as gasoline, and other environmental contaminants.

6 VOCs are compounds that have a high vapor pressure and low water solubility. VOCs are common components of petroleum fuels, hydraulic fluids, paint thinners, and dry cleaning agents.

7 Organochlorine pesticides are insecticides that are persistent in the environment and in the body tissue of organisms long after exposure. Several commonly known organochlorine pesticides have been banned for use in the U.S. including DDT, aldrin, toxaphene, and heptachlor.

17 Metals[8] and pH. Laboratory results revealed elevated levels of TPH Diesel (520 parts per million (ppm)) and Total Oil and Grease (590 ppm) in the vicinity of the aboveground kerosene drum. These levels exceed the typical regulatory agencies standard of less than (100 ppm) for soil.[9] Additionally, soil samples from other locations at the subject site revealed the presence of CAM 17 metals, arsenic (1.3 to 6.0 ppm), and lead (6.8 to 8.1 ppm). However, while the levels of arsenic and lead contamination varied from location to location, all samples revealed concentrations below the Total Threshold Limit Concentration (TTLC[10]) of 500 ppm for arsenic and 1000 mg/kg for lead. Groundwater sampling revealed the presence of Tetrachloroethene[11] in groundwater at the subject site at detected concentrations of 12 ppb. The standard set forth by the US Environmental Protection Agency (US EPA) Drinking Water Standard for clean-up goals is 5 ppb.

Because TPH Diesel and Total Oil and Grease levels in site soils exceed typical regulatory agency standards of less than 100mg/kg for soil, the 2001 Phase II investigation by Advance Soil Technology, Inc. recommended further analysis of soils in the vicinity of the kerosene AST, as well as a delineation of the vertical and horizontal extent of arsenic and lead contamination (despite low concentrations revealed in initial soil samples), and the installation of a series of groundwater wells around the perimeter of the subject site to determine the source of Tetrachloroethene in groundwater.

As follow up on the recommendations its June 2001 Phase I investigation, TEC Accutite conducted a Phase II subsurface investigation in February 2002 to assess the extent of the soil impacts with kerosene. This Phase II, prepared subsequent to the 2001 Phase II conducted by Advance Soil Technology, Inc. (discussed above), also found noticeable kerosene concentrations within the approximately 32 square-foot area where the kerosene AST was located. The 2002 Phase II recommended excavation of approximately three 55-gallon drums of impacted soil surrounding the shed area housing the stand and tank, to be preceded by a demolition of the dispenser shed, and, if sales were to continue, construction of an impervious concrete pad to underlie the drums. Since Tuffy's Ace Hardware and Lumber subsequently ceased operation at the project site, the 2002 Phase II recommended only the demolition of the dispenser shed and soil remediation, and no new installation of an impervious concrete pad was made. On March 22 and April 2, 2002, TEC Accutite excavated the kerosene-impacted soil (approximately 60 cubic yards) from the AST dispensing site. To assure this removal corrected the condition to the fullest extent possible, TEC Accutite excavated to a depth of 12 feet below surface grade.

8 CAM 17 metals, also commonly referred to as Title 22 metals, is a list of heavy metals described in the California Code of Regulations and includes Arsenic (As), Chromium (Cr), Copper (Cu), Lead (Pb), and Mercury (Hg).

9 Many state and federal regulators routinely enforce a soil cleanup standard of 100 ppm TPH. The standard is based on a "medium" leaching potential of the soluble and toxic fraction of gasoline. BTEX compounds form the most soluble and toxic fraction of gasoline.

10 TTLC refers to the soil concentration limits used for the quantification of metals as defined in Title 22 of the California Code of Regulations.

11 Tetrachloroethene, also known as Perchlor, Perc, Perchloroethylene, or PCE, is a manmade substance utilized as a de-greasing agent for metals and fabrics.

TEC Accutite prepared the "Report on the Excavation and Disposal of the Kerosene-Impacted Soil at 1111-29th Avenue in Oakland, CA" in April 2002, which reported that soil samples conducted after excavation showed "non-detect to non-significant concentrations of kerosene as well as BTEX and MTBE" (TEC Accutite, April, 2002). All concentrations were below the risk levels for the projection of the receptors onsite and the groundwater. The soil excavation was effective in removing the kerosene-impacted soils from the site, and the Report concluded that no further excavation would be needed at the site

A file review conducted by ESA at the City of Oakland Fire Department on February 23, 2006 and at the Alameda County Environmental Health Department (ACEHD) on March 2, 2006 and June 9, 2006, did not reveal any identifiable spills or hazardous material releases at this property.

Union Pacific Railroad Property Parcel 12

A Phase II subsurface investigation was prepared by Mission Geoscience, Inc. at the former Western Pacific Depot facility, located within the southern portion of the Union Pacific Railroad Parcel 12 along East 12th Street and bounded by Fruitvale Avenue and Derby Avenue. This parcel was acquired by Bay Area Rapid Transit (BART) and is now used as a parking lot. While this property is not part of the project site, it is located immediately east of the project site across Derby Avenue. Historic operations of the former train depot may have included areas for general maintenance and storage where hazardous substances (e.g. solvents, PCB-bearing hydraulic or cooling oils; petroleum hydrocarbon products) were utilized. As part of the investigation, 21 shallow soil samples from seven soil borings were analyzed for the presence and distribution of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and total petroleum hydrocarbons (TPH) within the vicinity of the former train depot facility.

Laboratory results revealed that soil samples collected at a depth of 2 feet below ground surface (bgs) and 5 feet bgs, depths appropriate to the target compounds, did not contain any of the target VOCs at concentrations equal to or exceeding the detection limits.[12] Therefore, there is no analytical evidence that the shallow soils at the former train depot have been impacted by VOCs. TPH was reported at concentrations ranging from 17 ppm at a depth of 5 feet bgs, to 550 ppm at a depth of 2 feet bgs. Because the TPH was observed in shallow soils, it is likely that these occurrences are attributed to small-volume leaks of motor oils or other lubricating oils from repair or maintenance of vehicles and/or hydraulic equipment. Laboratory results for one soil sample tested for PCBs indicated a concentration of 67 ppb. However, this concentration is below the current Region 9 EPA and the California EPA (Cal EPA) residential and industrial human health-risk-based Preliminary Remediation Goals (PRGs[13]) for both cancer and non-cancer toxicology endpoints and thus, is not considered to represent a significant risk to human health or the

[12] Collection of soil samples a depths less than 2 feet is appropriate for target compounds that are commonly found at the surface and shallow depths, such as pesticides.

[13] Preliminary Remediation Goals (PRGs) are risk-based concentrations of contaminants used for evaluating and cleaning up contaminated sites. They are intended to assist risk assessors and others in initial screening-level evaluations.

environment. The Phase II did not recommend further soil or groundwater investigations (Mission Geoscience, Inc., 1999).[14]

In late 1999, the project sponsor acquired land from Union Pacific Railroad; that land included Parcels 12, 13, 14, and 15 (from Fruitvale Avenue (west edge) to 23rd Avenue (eastern edge)). Parcel 12 was the western-most portion of the acquired land. Mission Geosciences investigated and prepared a Phase I environmental assessment report for all four parcels. That Phase I indicated a Phase II was warranted for Parcel 12, but was not necessarily for parcels 13, 14, and 15.

Site and Area Regulatory History

A regulatory file search was conducted to identify any reported hazardous materials storage, disposal, or spills/releases on or in the vicinity of the project site. An electronic file search was conducted that encompassed all mapped hazardous and potentially hazardous sites within one mile of the project site. The database search did not identify any potential or confirmed state or federal Superfund[15] sites located on or within one mile of the project site. However, the electronic database search did reveal 18 sites, including the project site, with reported violations within ¼ mile of the project site. Properties listed in the electronic file search do not necessarily represent a potential risk to the project site unless otherwise noted. Listed sites within ¼ mile of the project site with a record of violation are listed in **Table IV.F-2**. Of these 18 sites, 11 sites are listed as "closed cases," indicating that remediation activities have been completed and thus, these sites are not considered to pose a risk to the project site. The seven remaining sites are discussed below. Any additional information derived during subsequent file reviews conducted at the City of Oakland Fire Department on February 23, 2006 and at ACEHD on March 2, 2006 and June 9, 2006 is included in the discussion.

Caltrans South Oakland Maintenance Facility, 1112 - 29th Avenue

The Caltrans South Oakland Maintenance Facility is part of the project site. This property is bound by 29th Avenue to the west, Derby Avenue to the east, the former Western Pacific Railroad easement to the north, and the railroad tracks to the south. This site is the location of groundwater contamination by gasoline associated with the removal of a 4,000-gallon diesel fuel tank classified as a leaking underground storage tank (LUST) and a 2,000 gallon gasoline LUST. The leaks, discovered during closure and removal of the tanks in 1996, are reported as having affected

14 In late 1999, the project sponsor acquired land from Union Pacific Railroad; that land included Parcels 12, 13, 14, and 15 (from Fruitvale Avenue (west edge) to 23rd Avenue (eastern edge)). Parcel 12 was the western-most portion of the acquired land. Mission Geosciences investigated and prepared a Phase I environmental assessment report for all four parcels. That Phase I indicated a Phase II was warranted for Parcel 12, but was not necessarily for parcels 13, 14, and 15.

15 A Superfund site is a site that has been contaminated by hazardous waste and identified by the U.S. EPA as a priority for cleanup due to risks to human health and/or the environment.

TABLE F-2
SITE AND AREA REGULATORY HISTORY

Distance/ Direction from Project Site	Site Name	Address	Databases	Comments	Potential Threat to Project Site?
Onsite	Caltrans South Oakland Maintenance Facility	1112 - 29th Ave	FINDS, HAZNET, LUST, Cortese, RCRA-LQG, CS, SWEEPS UST	Former LUST site, resulted in groundwater contamination, MTBE and benzene plume, remedial activities still underway.	Yes
1/8 - 1/4 mi N	St. Joseph Professional Center	2647 E 14th St	HAZNET, CS, Cortese, LUST	Case closed.	No
1/8 - 1/4 mi N	Tri City Cleaners	2560 E 14th St	Cortese, LUST, Cleaners, CS, FINDS, EMI	Case closed.	No
1/8 - 1/4 mi N	Delaware Development Company	2530 E 14th St	LUST, Cortese	Case closed.	No
1/8 - 1/4 mi N	Standard Brands Paint	2442 E 14th St, 2445 E 14th St	HIST UST, LUST, Cortese, CA FID, SWEEPS UST	Case closed.	No
1/8 - 1/4 mi NE	Goodwill Industries	1301 30th Ave	LUST, Cortese, SWRCY, CS	Case closed.	No
1/8 - 1/4 mi E	Oil Changer #616	3132 E 12th St	LUST, Cortese, CS	Case closed.	No
1/8 - 1/4 mi E	Melrose Ford	3050 E 14th St	RCA-SQG, FINDS, HAZNET, HIST UST, SWEEPS UST, CA FID UST, LUST, Cortese, CS	Case closed.	No
1/8 - 1/4 mi SW	Eandi Metal Works, Inc	976 - 23rd Ave	HAZNET, LUST, Cortese, CA FID UST, EMI, SWEEPS UST, CS	Downgradient of project site.	No
1/8 - 1/4 mi SW	Kilpatrick's Bakery Inc Garage	955 Kennedy St	HAZNET, CHMIRS, Cortese, LUST, CA WDS, CS	Case closed.	No
1/4 mi N	Taxi Taxi Inc	2345 E 14th St	LUST, CS	Soil contamination only, unlikely for contaminated soil to migrate to project site.	No
1/8 mi NW	23rd Avenue Partners, Heitz Trucking	1125 Miller Ave	LUST, CA FID UST, CHMIRS, HIST UST, SWEEPS UST, HAZNET, CS	ACEHD does not require further groundwater monitoring or sampling.	No
1/8 - 1/4 mi NW	Mel Senna Brake Service Inc	2301 E 12th St	LUST, CS	Soil contamination only, unlikely for contaminated soil to migrate to project site.	No
<1/8 mi NW	Contractors Equipment Rental, Action Rentals	2250 E 12th St	LUST, CS, CA FID UST, SWEEPS UST	Case closed.	No

Distance/ Direction from Project Site	Site Name	Address	Databases	Comments	Potential Threat to Project Site?
1/4 - 1/2 mi S	Sav On Drug 3714, Del Monte Plant 37/237	3100 E 9th St	RCRA-SQG, FINDS, LUST, Cortese	Case closed.	No
<1/8 mi S	Roadway Express	1125 27th Ave	CA STATE SLIC	Personal communication with RWQCB indicates case is inactive.	No
<1/8 mi NW	Ernie's Automotive	2400 E 14th St	CS	Case closed.	No
1/4 mi NW	Exxon Mobil C/O Environmental R	2200 E 12th St	HAZNET, EMI, CS, SWEEPS UST	Downgradient of project site.	No

SOURCE: EDR, 2006.

groundwater, with benzene and Methyl tert-Butyl Ether[16] (MTBE) being the primary contaminants (EDR, 2006). Remediation activities have consisted of excavation of the contaminated soil and ongoing groundwater monitoring. The results of the groundwater monitoring are submitted on a quarterly basis to ACEHD. Because the case is still active, the extent of the groundwater plume has not yet been defined, and because groundwater monitoring has not confirmed that the plume is stable or diminishing, contamination issues at 1112 - 29th Avenue represent a potential threat to future land uses at the project site (ESA, 2006a and 2006b).

Eandi Metal Works, Inc., 976 - 23rd Avenue

This site, located about 550 feet southwest of the project site, is listed as the location of groundwater contamination associated with a gasoline from a former LUST. Remedial activities consisted of excavation and disposal of contaminated soil (EDR, 2006). Although this case is listed as active, it is not expected to pose a threat to the project site due to general groundwater flow direction away from the project site to the southwest and elevation relative to the project site.

Taxi Taxi, Inc., 2345 East 14th Street

This site, located approximately 700 feet north of the project site, is the location of soil contamination from gasoline associated with a LUST (EDR, 2006). Because the accidental release is classified as having affected soil only and not groundwater, and because it is unlikely that soil from this site would migrate to the project site, this site is not expected to present pose a threat to future land uses at the project site.

23rd Avenue Partners, 1125 Miller Avenue

This site, located roughly 300 feet west of the project site, is the location of a leaking 5,000-gallon LUST containing diesel fuel. This accidental release contaminated the drinking water aquifer (EDR, 2006). A subsurface investigation report was prepared by Clearwater Environmental Services and submitted to ACEHD in February 2006. The results of the subsurface investigation revealed soil concentrations of TPHd[17] ranging from 5.8 mg/kg to 1,200 mg/kg and concentrations of TPHd in groundwater at 890 micrograms per liter. Based on the results of the soil and groundwater analysis, the subsurface investigation recommended the preparation of a workplan that included the installation of at least three groundwater monitoring wells and the implementation of a groundwater monitoring program for a minimum of one year to further evaluate the subject site (Clearwater Environmental Services, 2006a). ACEHD has since stated that the installation of a groundwater monitoring network and/or additional grab groundwater samples was not required by ACEHD (ACEHD, 2006). As of May 31, 2006, the potential for residual product in shallow soil to create nuisance odors inside buildings or pose potential human health risks via indoor vapor intrusion is being analyzed for the subject site (Clearwater Environmental Services, 2006b). Because ACEHD is not requesting further

16 MTBE is a VOC commonly used as an additive for unleaded gasoline to achieve more efficient burning.
17 The US EPA Region 9 has not established Preliminary Remediation Goals (PRGs) for Total Petroleum Hydrocarbons as diesel.

groundwater monitoring or remediation, it is unlikely that this site presents a potential risk to the project site.

Roadway Express, 1125 - 27th Avenue

This site, located about 300 feet south of the project site, is listed on the CA State Spills, Leaks, Investigation, and Cleanup (SLIC) database (EDR, 2006). The CA State SLIC database contains data acquired from the Regional Water Quality Control Board (RWQCB) regarding the cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the State's waters but not covered by another program. The RWQCB was contacted to find out more information regarding the nature of the release of hazardous materials at this site. Based on the information available for this site, this site is considered inactive and is not expected to pose a threat to the project site (Wolfenden, 2006[18]).

Exxon Mobil C/O Environmental R, 2200 East 12th Street

This site is located approximately 1,300 feet northwest of the project site, and is listed as the location of a LUST containing gasoline. The accidental release is reported as having affected groundwater. Remediation activities consisted of excavation and disposal of contaminated soil and groundwater monitoring and extraction (EDR, 2006). However, as indicated in a groundwater monitoring report prepared for the subject site in January 2006, groundwater flow in the vicinity of this site is to the west and thus, away from the project site (ESA, 2006c). Therefore, it is unlikely that this site presents a potential risk to future land uses at the project site.

Regulatory Framework

Hazardous Materials and Waste Handling

The California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous materials users to prepare written plans, such as Hazard Communication Plans and Hazardous Materials Business Plans. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely. A number of agencies participate in enforcing hazardous materials management requirements, including DTSC, RWQCB and ACEHD.

In Alameda County, a Hazardous Materials Management Plan must be prepared and submitted to the County by businesses that use or store certain quantities of hazardous materials. The Federal Resource Conservation and Recovery Act of 1976 (RCRA) established a "cradle-to-grave" regulatory program for governing the generation, transportation, treatment, storage and disposal of hazardous waste. Under RCRA, individual states may implement their own hazardous waste

[18] Wolfenden, John, 2006. Senior Water Resources Control Engineer at SF Bay Regional Water Quality Control Board. Personal telephone conversation with Kelly White of ESA. 13 March 2006.

programs in lieu of RCRA as long as the state program is at least as stringent as Federal RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transportation

The United States Department of Transportation regulates hazardous materials transportation on all interstate roads. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Soil and Groundwater Contamination

In Alameda County, remediation of contaminated sites is generally performed under the oversight of DTSC, RWQCB, and/or ACEHD. At sites where contamination is suspected or known to have occurred, a project sponsor is required to perform a site investigation and draw up a remediation plan, if necessary. For typical development and redevelopment projects, site remediation is completed either before or during the construction phase of the project.

The proposed project would likely necessitate some level of environmental cleanup at the project site. The cleanup would be required to be performed under the oversight of a lead oversight agency. It is anticipated that DTSC would serve as the lead agency pursuant to California Health and Safety Code Section 25395.60, et seq., the California Land Reuse and Revitalization Act (CLRRA). Under CLLRA, a project proponent would enter into a contractual agreement with DTSC to complete an environmental assessment of the project site and to clean up the property in accordance with all applicable laws and regulations.

Under CLLRA, the environmental assessment of the site must include:

a) Characterization of the hazardous materials released or threatened to be released at or from the site;

b) Available information about the site;

c) A risk assessment, if appropriate, that evaluates the risk posed by any hazardous materials released or threatened to be released at or from the site;

d) Information regarding "reasonably anticipated foreseeable uses of the site based on current and projected land use and zoning designations"; and

e) If the release has impacted groundwater, "reasonable characterization of underlying groundwater," including present and anticipated beneficial uses of the water.

For cleanup, CLLRA requires that the project proponent submit to the lead agency and agree to implement a response plan to clean up the property. The response plan must include:

a) Identification of the releases or threatened releases at the site;

b) Documentation that the plan is based on adequate characterization of the site;

c) Identification of the response plan's objectives and the proposed remedy;

d) Identification of the current and reasonably anticipated future land use of the site, including confirmation regarding such projections for the city or county in which the site it located;

e) A description of activities that will be used to control any endangerment that may occur during the response action;

f) A description of any land use control that is part of the response action;

g) A description of wastes other than hazardous materials at the site and how such wastes will be managed during the response action;

h) Provisions for the removal of containment vessels and other sources of contamination, including soil and free product, that cause an unreasonable risk;

i) Provisions for the agency to require further response actions based on the discovery of hazardous materials that pose an unreasonable risk to human health or the environment during the response action or subsequent development of the site; and

j) Any other information required by the lead agency. Prior to approval by the lead agency or implementation by the project proponent, CLRRA further requires that, the response plan be subject to meaningful public notice and comment to permit the community and other state and local agencies to obtain information about and express their views regarding the proposed cleanup.

Site remediation or development may also be subject to regulation by other agencies. For example, if dewatering of a hazardous waste site were required during construction, subsequent discharge to the sewer system could require a permit from the East Bay Municipal Utility District (EBMUD), and discharge to the storm water collection system could require a National Pollutant Discharge Elimination System (NPDES) permit from the RWQCB.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the workplace.

Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known to be contaminated, a Site Safety Plan to minimize worker safety risks must be prepared and submitted to Cal OSHA. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, the Department of Fish and Game, the RWQCB, and the local fire department. The Oakland Fire Department provides first response capabilities, if needed, for hazardous materials emergencies within or near the project area.

Structural and Building Components

Asbestos

Similar to federal laws, state laws and regulations also pertain to building materials containing asbestos. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable (easily crumbled) materials the greatest health threat. These existing laws and regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos. Due to the age of the buildings on the project site, it is likely that asbestos-containing building materials are present.

Polychlorinated Biphenyls (PCBs)

PCBs are organic oils that were formerly placed in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Years after widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects, and that PCBs are highly persistent in the environment.

In 1979, US EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act, 15 U.S.C. Section 2601 *et seq.*(TSCA). TSCA and its implementing regulations generally require labeling and periodic inspection of certain types of PCB equipment and set forth detailed safeguards to be followed in disposal of such items.

It is not known whether the transformers located near the East 12th Street and 29th Avenue intersection contain PCBs. Additionally, PCBs could be found in existing and former railroad easements at and adjacent to the project site.

Lead and Lead-Based Paint

Pursuant to California Code of Regulations, Title 22 Section 66261.24, waste soil containing lead is classified as hazardous if the lead exceeds a total concentration of 1,000 parts per million (ppm) and a soluble concentration of 5 ppm.

Underground Storage Tanks

State laws governing USTs specify requirements for permitting, monitoring, closure, and cleanup. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. Generally speaking, the ACEHD is the local agency designated to permit and inspect USTs and to implement applicable regulations. The ACDEH Local Oversight Program and the Oakland Fire Department also have regulatory authority for removal of USTs. A closure plan for each UST to be removed must be prepared and submitted to the County prior to tank removal. Upon approval of the UST closure plan by the County, the Oakland Fire Department would issue a permit for removal. The Oakland Fire Department Hazardous Materials Unit oversees the removal of USTs and the subsequent collection of subsurface soil samples beneath a removed UST.

Impacts and Mitigation Measures

Introduction

Hazardous materials and hazardous wastes, if mishandled, could pose risks to the public. Potential health and safety impacts can stem from interactions of construction workers, the public and/or future occupants with hazardous materials and wastes encountered or generated during project construction activities or project operations.

Significance Criteria

A hazardous materials impact would be considered significant if it would result in any of the following:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or

4. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, creates a significant hazard to the public or the environment;

5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;

6. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the project area;

7. Be located within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the project area;

8. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

9. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Approach to the Analysis

This impact analysis focused on potential effects of hazardous materials or waste associated with the project site. The evaluation was made in light of project plans, baseline conditions at the project site, applicable regulations and guidelines, and previous environmental investigations.

Hazardous Materials Impacts

Impact HAZ-1: Historical uses at and in the vicinity of the project site have impacted soil and groundwater at the project site. Contaminated soil and groundwater could pose risks to human health and the environment. (Potentially Significant)

Historical uses at the project site consist primarily of industrial and commercial uses. The results of the Phase I and Phase II conducted at 1111 - 29th Avenue (former site of Tuffy's Ace Hardware and Lumber) and subsurface investigations and monitoring conducted at 1112 - 29th Avenue (Caltrans South Oakland Maintenance Facility) indicate that soil and groundwater quality at portions of the site have the potential to cause risks to human health and ecological receptors[19]. While contaminants have been identified at the 1111 - 29th Avenue and 1112 - 29th Avenue sites, soil and groundwater sampling has not been evaluated in other portions of the project site. Although no direct evidence of soil or groundwater contamination has been revealed at the locations of the former Western Pacific Railroad easement along the northern boundary of the project site and areas adjacent to the existing Southern Pacific Railroad easement along the southern boundary of the project site, there is a potential for soil and/or groundwater contamination in these areas.

[19] Ecological receptors include terrestrial organisms such as invertebrates, birds, reptiles, and mammals.

Implementation of the proposed project would result in the eventual demolition of all existing structures and buildings of the project site. Construction activities would also include excavation of subsurface soils for installation of project-related utilities, building foundations, and underground parking garages. Soil disturbance at the project site during construction could disperse existing contamination into the environment and expose construction workers or the public to contaminants. Contaminated soil requiring offsite disposal could be generated from the project either as part of excavation activities associated with the construction or potentially as part of remediation activities. If significant levels of hazardous materials in excavated soils should go undetected, health and safety risks to workers and the public could occur. Exposure to hazardous materials could cause various short-term and/or long-term health effects. Possible health effects could be acute (immediate, or of short-term severity), chronic (long-term, recurring, or resulting from repeated exposure), or both. Acute effects, often resulting from a single exposure, could result in a range of effects from minor to major, such as nausea, vomiting, headache, dizziness, or burns. Chronic exposure could result in systemic damage or damage to organs, such as the lungs, liver, or kidneys. Health effects would be specific to each hazardous material. Implementation of Standard Conditions HAZ-1a through HAZ-1f would reduce potential impacts associated with contamination from historical land uses to less than significant.

Standard Condition HAZ-1a: Same as Standard Condition AIR-1a.

Standard Condition HAZ-1b: Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

Standard Condition HAZ-1c: The project applicant shall submit a comprehensive assessment report, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.

Standard Condition HAZ-1d: If the environmental site assessment reports recommend remedial action, the project applicant shall:

a) Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.

b) Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.

c) Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

Standard Condition HAZ-1e: Natural Asbestos in Soils – To minimize the release of naturally occurring asbestos in the soil during construction, the project sponsor shall require the construction contractor to demonstrate compliance with BAAQMD's Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying and Surface Mining Operations (implementing CCR section 93105) for activities that disturb the soil, such as grading, etc.

Minimum Requirements where area to be disturbed with Construction Operations is More than 1 acre

Administrative (Prior to the start of work)

a) Asbestos Dust Minimization Plan submitted to BAAQMD and approved prior to engaging in the any construction or grading operation.

b) The Asbestos Dust Minimization Plan provisions shall be implemented at the beginning and maintained throughout the duration of the construction or grading activity.

Dust Control Requirements

The Asbestos Dust Minimization Plan shall include one or more provisions to address the following topics:

c) Control for traffic on on-site unpaved roads, parking lots, and staging areas shall include: limiting vehicle speed to less than 15 mph, and one or more of the following: watering every two hours of active operations or sufficiently often to keep area wetted; applying chemical dust suppressants to consistent with manufacturer's directions; maintaining gravel cover with a silt content less than 5% and asbestos content less than .25% as determined using the asbestos bulk test method; or any other measure as effective as those listed above.

d) Control for earthmoving activities shall include one or more of the following: pre-wetting the ground to the depth of the anticipated cuts; suspending grading operations when wind speeds are high enough to result in dust emissions crossing the property line despite

applicable of dust measures; application of water prior to any land clearing; or any other measure as effective.

e) Storage piles kept adequately wetted, or covered with tarps when the material is not being added or removed.

f) Storage piles must be stabilized when inactive for more than 7 days by implementing one or more of the following: adequately wetting the site, establishing and maintaining surface crusting material, chemical dust suppressant or stabilizer, covering with tarps or vegetative cover, installation of wind barriers of 50% porosity around three sides of the pile areas, or any measure as effective.

g) Equipment must be washed down before moving from the property onto paved roadway.

h) Track-out prevention and control measures shall include

i) **Removal of visible track-out on paved public road at any location where vehicles exit the work site using wet sweeping or High Efficiency Particulate Air (HEPA) filter equipped vacuum device at least one time per day.**

ii) **Installation of one or more of the following track-out prevention devices: gravel pad, tire shaker, wheel wash system, not less than 50 feet of pavement extending from intersection with paved public road, or other measure as effective.**

i) Control for offsite-transport shall include the following: maintenance of trucks such that no spillage can occur from holes or openings in cargo compartments; loads are adequately wetted; and either covered with tarps or loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6" from the top and that at no point of the load extends above the top of the cargo compartment.

j) Post project stabilization of disturbed surfaces using one or more of the following: establishing vegetative cover; placement of at least 3" of non-asbestos-containing material, paving, or other measure deemed sufficient to prevent 10 mph winds from causing visible emissions.

Administrative (After completion of work)

k) If required by the BAAQMD's APCO, the plan must include an air-monitoring component which shall specify the following: type of air sampling device; siting of the device; sampling of the device; sampling duration and frequency; and analytical method.

l) The plan shall state the frequency with which the information will be reported to BAAQMD.

m) The owner/operator shall keep maintain the following records for at least 7 years following completion of the project: results of any required air monitoring; documentation for any geologic evaluation conducted for the purposes of obtaining an exemption; and results of any bulk sampling conducted by the owner/operator to document applicability done or at the request of APCO.

(*Also see Standard Condition AIR-1b.)*

Standard Condition HAZ-1f: The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Services, Hazardous Materials Units. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. The Hazardous Materials Business Plan shall include the following:

a) The types of hazardous materials or chemicals stored and/or used on site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.

b) The location of such hazardous materials.

c) An emergency response plan including employee training information

d) A plan that describes the manner in which these materials are handled, transported and disposed

At the time of this EIR, it is not known when the Caltrans South Oakland Maintenance Facility will receive case closure for historical releases associated with USTs. Prior to residential redevelopment of any portion of the project site that has not obtained regulatory site closure for previous hazardous material releases, the project sponsor shall demonstrate to the City and ACEHD that a sufficient level of investigation has been completed by preparing a comprehensive summary report that details each of the past soil and groundwater studies. Depending on the response of the ACEHD and its position regarding the project site, the project sponsor could be required to perform additional studies to fill any outstanding data gaps, including a health-based risk assessment. The risk assessment shall establish appropriate site-specific cleanup levels for petroleum hydrocarbons, VOCs, and other contaminants in soil or groundwater. If development of the project site requires the removal of existing groundwater monitoring wells at the Caltrans South Oakland Maintenance Facility, the project sponsor shall obtain well destruction permits from ACEHD and destroy the wells in accordance with Alameda County and DWR standards.

Significance after Implementation of Standard Conditions: Less than Significant.

Impact HAZ-2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, and USTs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling. (Potentially Significant)

Asbestos

Surveys for asbestos-containing building material and lead-based paint have not been conducted for existing buildings on the project site. Asbestos could be encountered during demolition of the existing buildings and may require containment and disposal. Affected buildings would need appropriate abatement of identified asbestos prior to demolition or renovation. Asbestos-containing material is regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. The renovation or demolition of buildings containing asbestos would require retaining contractors who are licensed to conduct asbestos abatement work and notifying the Bay Area Air Quality Management District (BAAQMD) ten days prior to initiating construction and demolition activities.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Potential exposure to asbestos, and its related chronic adverse health effects, is possible throughout demolition and renovation if materials that contain asbestos are present during operations.

Lead and Lead-based Paint

Surveys for lead-based paint have not been conducted at the project site. Lead-based paint could be separated from building materials during the demolition process. Separated paint can be classified as a hazardous waste if the lead content exceeds 1,000 parts per million and would need to be disposed of accordingly. Additionally, lead-based paint chips can pose a hazard to workers and adjacent sensitive land uses. Both the US and California OSHAs regulate all worker exposure during construction activities that impact lead-based paint. The Interim Final Rule found in 29 CFR Part 1926.62 covers construction work where employees may be exposed to lead during such activities as demolitions, removal, surface preparation for re-painting, renovation, clean up and routine maintenance. The OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, training, etc.

Dust generating activities that include removal of walls, sanding, welding, and material disposal could produce airborne quantities of lead-laden material. These materials could expose workers

and persons in close proximity, including occupants of offsite locations. The project site could contain buildings with painted surfaces, such as drywall, ceilings, and exterior stucco, which could contain lead-based paint (LBP).

PCB-Containing Transformers

The presence of PCB-containing material may be present within existing structures on the project site. Demolition of these structures could disturb these materials and expose workers or the public to adverse effects. Also, it is unknown whether the transformers located on the site contain PCBs.

Underground Storage Tanks

Prior to UST regulations that were established in the 1980s, USTs were commonly installed without any documented record. Therefore, additional undocumented USTs may be encountered during demolition and grading activities. If encountered, adverse effects to workers, the public, and the environment could result. This would be a significant impact.

Accordingly, the project sponsor shall implement the City of Oakland's standard conditions of approval, which, together, would reduce impacts associated with potentially hazardous building materials to less than significant.

> **Standard Condition HAZ-2a: If asbestos is found to be present in building materials to be removed, demolition and disposal is required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of Bay Area Air Quality Management District (BAAQMD) regulations, as may be amended.**
>
> **Standard Condition HAZ-2b: If lead-based paint is present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, specifications signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.**
>
> **Standard Condition HAZ-2c: If asbestos-containing materials (ACM) are present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.**
>
> **Standard Condition HAZ-2d: If other building materials or stored materials classified as hazardous waste by State or federal law is present, the project applicant shall submit, prior to issuance of any demolition, grading or building permit, written**

confirmation that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.

Standard Condition HAZ-2e: If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall, prior to issuance of any demolition, grading or building permit, create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.

Significance after Implementation of Standard Conditions: Less than Significant.

Impact HAZ-3: Hazardous materials used onsite during construction activities (i.e. solvents, paints, fuels, and glues) could be released to the environment through improper handling or storage. (Potentially Significant)

Hazardous materials, such as fuels, oils, solvents, and glues, would be used at the project site during construction. Inadvertent release of large quantities of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. However, the onsite storage and/or use of quantities of materials capable of significantly impacting soil and groundwater are not typically required for a project of the proposed size and type. Implementation of Standard Condition HAZ-3 would reduce the potential for the accidental release of hazardous substances during construction to less than significant.

Standard Condition HAZ-3: The project applicant and construction contractor shall ensure that construction best management practices are implemented as part of construction to minimize the potential negative effects to groundwater and soils, prior to commencement of demolition, grading, or construction. These shall include the following:

a) Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;

b) Avoid overtopping construction equipment fuel gas tanks;

c) During routine maintenance of construction equipment, properly contain and remove grease and oils;

d) Properly dispose of discarded containers of fuels and other chemicals.

e) Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would

potentially affect a particular development or building. The applicant is responsible to avoid, eliminate delays with the unexpected discovery of contaminated soils with hazardous materials.

Significance after Implementation of Standard Condition: Less than Significant.

Impact HAZ-4: Accidental rupture of the petroleum pipeline located along the southern boundary of the site could result in adverse impacts to workers, the public, and the environment. (Potentially Significant)

A petroleum pipeline owned and operated by Kinder Morgan is located between the southern boundary of the site and the adjacent railroad tracks. Utility trenching or subsurface excavation in the vicinity of this pipeline, or other existing subsurface utility lines could result in inadvertent damage to these lines; and could endanger the health and safety of construction workers and the public. Implementation of Mitigation Measure HAZ-4 would reduce risks associated with the petroleum pipeline and other underground utilities encountered during construction to a less than significant level.

Mitigation Measure HAZ-4: Forty-eight hours prior to initiation of subsurface excavation, the City of Oakland shall require the project sponsor to delineate the proposed excavation area and notify Underground Surface Alert (USA). In addition to USA notification, the project Sponsor shall provide Kinder Morgan a 48–hour notice of excavation proposed within five feet of the pipeline. Engineering and construction drawings shall clearly delineate the location and path of the petroleum pipeline.

Significance after Implementation of Mitigation Measure: Less than Significant.

Impact HAZ-5: Project operations would generate and involve the handling of general commercial and household hazardous waste in small quantities, and therefore would not cause an adverse effect on the environment. (Less than Significant)

Proposed land uses at the project site consist of residential and commercial land uses. Commercial and building support activities would use hazardous chemicals common in other commercial and support settings. These chemicals would include familiar materials such as toners, correction fluid, paints, lubricants, kitchen and restroom cleaners, pesticides and other maintenance materials. These common consumer products would be used for the same purposes as in any commercial or support setting. Because general commercial and household hazardous materials are generally handled and transported in small quantities and because the health effects associated with them are generally not as serious as industrial uses, implementation of the project would not cause an adverse effect on the environment with respect to the use, storage, or disposal of household hazardous materials generated from proposed uses. In fact, in general the project

would likely result in an overall decrease in the use, storage and disposal of hazardous materials and wastes and therefore the impact would be considered less than significant.

Mitigation: None Required.

Cumulative Impacts

Impact HAZ-6: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, would not result in cumulative hazardous materials impacts. (Less than Significant)

Development of the project site, with implementation of the identified mitigation measures above, would have a less than significant hazardous materials impact to the public or the environment within the vicinity of the project area. Other foreseeable development within the area, although likely increasing the potential to disturb existing contamination and the handling of hazardous materials, would be required to comply with the same regulatory framework as the project. This includes federal and state regulatory requirements for transporting (Cal EPA and Caltrans) hazardous materials or cargo (including fuel and other materials used in all motor vehicles) on public roads, or disposing of hazardous materials (Cal EPA, DTSC, ACEHD). Therefore, the effect of the project on hazardous materials, in combination with other foreseeable projects, would not be significant.

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G. Public Services, Parks, and Recreation Facilities

This section describes existing public services, parks, and recreation facilities in the project vicinity. It also evaluates the potential impact of the project on the delivery of public services and recreation facilities, and possible adverse physical impacts on the environment that could result from a need to provide new or physically altered facilities. As necessary, appropriate mitigation measures and/or standard conditions of approval are identified. The analysis reviews police services, fire protection and emergency medical response, public schools, and parks and recreation facilities.

Setting

Police Protection Services

Facilities and Staffing

The Oakland Police Department (OPD) provides police protection services throughout the city. OPD is headquartered at 455 7th Street in downtown Oakland, and there is one sub-station located at 2651 23rd Avenue.

OPD is authorized for 739 full-time, sworn police officers and about 427 civilian (non-sworn) employees. As of September 2006, the OPD is authorized for 803 sworn police officers, 352 civilian (non-sworn) employees, and eight rangers (City of Oakland, 2006). Currently, not all positions are filled, and there are 696 sworn police officers, a civilian staff of 315, and four rangers. The ratio of police officers per 1,000 residents is approximately 2.0, based on the City's population, as of January 1, 2004, of 411,755 from the California Department of Finance (2006).

The City of Oakland is divided into six geographic areas called Police Service Areas (PSA) and 35 patrol beats. Each patrol beat generally includes an area with between 5,000 and 7,000 residents. A neighborhood services coordinator, a civilian employee that acts as the liaison between the community and OPD, is assigned to each patrol beat. The neighborhood services coordinator works with the community to set priorities and develop strategies to improve public safety and reduce crime. There are also two problem solving officers and a Lieutenant of Police assigned to each of the six geographic areas in the city. Problem solving officers do not respond to calls for service, and are responsible for conducting projects in the community that patrol police officers frequently can not handle. Projects vary depending on needs of the community.

The majority of the project site is within patrol beat 20X, which is under the jurisdiction of Police Service Area 4 (PSA 4). PSA4 oversees the area bordered by the Estuary and MacArthur Boulevard, 23rd Avenue and High Street, and the Oakland Hills from the Diamond District to Keller Avenue. Although crime occurrences for Beat 20 and PSA 4 have decreased slightly between 2003 and 2004 (see **Table IV.G-1**), the crime rate in the project vicinity is generally higher than City average (Breshears, 2005).

TABLE IV.G-1
SELECTED REPORTED CRIMES IN THE PROJECT VICINITY

Year/Crime	Murder	Assaults	Domestic Violence	Robbery[a]	Burglary [b]	Arson	Total
2003	4	23	10	64	140	10	251
2004	2	24	10	70	132	4	242

a Includes robbery, attempted robbery and residential robbery.

b Includes auto, residential, commercial and other burglary.

SOURCE: Breshears, 2005.

Patrol beat 20X has one officer assigned to it for 24 hours a day. Officers generally work ten-hour shifts four times each week. At any one time, citywide, there are 39 officers, a watch commander, and several supervising sergeants on duty – all sworn personnel. The department's Crime Reduction Unit adds approximately 14 officers during the afternoon and nighttime hours, and the Traffic Operations Unit staffs between six to eight officers throughout the day, with additional staff available for special events and periods of special staffing needs. OPD's response times to calls for police services, which are routed through the Department's communications center at 1605 Martin Luther King Jr. Way, are recorded for the City of Oakland as a whole; the Department does not track response times for individual service areas.

Service Demand

All emergency (911) and non-emergency calls for police, fire, and medical services are received through OPD's communications center at 1605 Martin Luther King Jr. Way. Calls for fire and medical services are routed to the fire department for dispatching. Police calls are prioritized by a computer-aided dispatch system, which may be overridden by dispatchers, and police officers are dispatched from the police communications center by radio and/or laptop computers mounted in police vehicles.

In 2004, there were about 646,883 calls received and 244,286 emergency calls dispatched. This equates to about 593 dispatched calls per thousand residents, based on the City's population of 411,609 from the California Department of Finance. OPD's citywide response time to calls for police services generally reflects the perceived seriousness of the call. Incoming calls for police services are prioritized as follows: Priority 1 means potential danger for serious injury to persons, violent crimes, serious public hazards, felonies in progress; Priority 2 refers to urgent but not emergency situations such as hazardous or sensitive matters, in-progress misdemeanors and crimes, etc.; Priority 3 calls are reports of incidents that do not present immediate danger to life or property. Dispatch times vary, although generally, 63 percent of Priority 1 calls are dispatched within five minutes (Grieve, 2005).

Fire Protection and Emergency Medical Services

Facilities and Staffing

The Oakland Fire Department provides fire protection services and emergency medical services throughout the city. The Fire Department operates 25 fire stations, 25 engine companies with approximately four personnel per engine, and seven truck companies with four to five personnel per truck. The number of personnel actually responding to an emergency depends on the location and nature of the emergency. The Fire Department currently has a staff of 562 personnel, of which 492 are sworn personnel (Fire Suppression and Emergency Medical personnel). Over 100 of Oakland's firefighters are also trained as paramedics (Sierra, 2007).

The Fire Department is organized into four divisions, each of which focuses on department functions. The Fire Department is also organized into three battalions, each consisting of seven to ten fire stations, that provide requested fire and emergency medical services. The battalions are organized by geographic area: Battalion 2 serves West Oakland and the North Oakland areas; Battalion 3 serves the area from Seminary Boulevard, east to the city of San Leandro; and Battalion 4 serves central Oakland (there is no Battalion 1). Each battalion consists of seven to ten fire stations, and the project site falls within the response boundaries of Fire Station 13 at 1225 Derby Avenue, which would be the first engine company that would respond to an emergency at the site.

Service Demand

Fire and medical emergency calls are received by the public communications center at the Oakland Police Department and then routed through a computer-aided dispatch system. In 2004, the Fire Department responded to about 59,579 calls throughout the City. The fire station serving the project area responded to approximately 1,481 calls in 2004 (Fountaine, 2005). The Fire Department's response time goal is seven minutes or less from the time a call is received in the Fire Dispatch Center, until the first unit arrives on the scene of the emergency, 90 percent of the time (Sierra, 2007). The average response time for the Fire Station 13 (Engine 2553) to the entire area they service is about 2 minutes 0 seconds, well within the Department's response time goal (Sierra, 2007). In addition to firefighting and emergency medical response capabilities, the fire department also has a hazardous materials unit that operates from Station 3, which is located at 1445 14th Street and responds citywide to emergencies involving hazardous materials.

Public Schools

School Facilities and Attendance

The Oakland Unified School District (OUSD) operates public schools in the City of Oakland. The OUSD administers a total of 131 schools: 70 elementary schools, 20 middle schools, 27 high schools, and a total of 14 other schools, which include alternative schools, special education schools, continuation schools, and others. In a continually shifting environment, but primarily within facilities owned by OUSD, OUSD oversees a variety of autonomous small schools, academies, "new schools," reconstituted schools, early childhood education centers, adult schools, and alternative schools, as well as District and State charter schools. There were about

48,135 students enrolled in OUSD elementary and secondary public schools for the 2005-2006 academic year, showing a decline in enrollment from about 49,214 students in 2004-2005 and 50,437 students in 2003-2004 (California Department of Education, 2007a). OUSD recognizes that it continues to experience a decreasing student enrollment (despite existing demand levels), and thus is not planning new construction of new schools in the foreseeable future, subject to change depending on future student enrollment (Chambers, 2004).

On a statewide basis, an estimated 9 percent of all Kindergarten (K) through grade 12 students attend private school. During the 2005-2006 academic year, approximately 26,620 students in grades K through 12 in Alameda County attended private schools, an estimated 11 percent of the student population. In Oakland, there are 52 private elementary and secondary schools, attended by an estimated 8,787 students (California Department of Education, 2005b). Private school students do not necessarily live within the city where the school is located, and students living in Oakland can attend private schools in other cities. Private schools in Oakland include Montessori schools, schools sponsored by religious institutions, and college preparatory schools.

The project site is located in the attendance areas for Lazear Elementary School, Roosevelt Middle School, and Fremont Federation High School. Lazear Elementary, located at 824 29th Avenue and Hawthorne Elementary, is located at 1700 28th Avenue. Roosevelt Middle School, is located at 1926 19th Avenue; and nearby Calvin Simmons Middle School, is located at 2101 35th Avenue. Fremont Federation High School is located at 900 High Street, and is the closest high school to the project site. The Caesar Chavez Education Center, located at 2825 International Boulevard, is across East 12th Street, directly opposite the project site. The Center currently houses three schools: Think College Now, which an elementary school that serves Kindergarten through grade three; International Community School, which is an autonomous small school that serves Kindergarten through grade five; and Urban Promise Academy, which is an autonomous small school that serves grades six through eight. ASCEND is another autonomous small school, located across the street from the Fruitvale BART station at 3709 East 12th Street.

Student Generation

Two different student generation rates have been used by OUSD recently to estimate the number of students that could result from the new residential development. One rate, proposed by Lapkoff & Gobalet Demographic Researchers,[1] estimates 0.1 students per market-rate multifamily unit, equally distributed among elementary, middle, and high schools.

The second student generation rate, developed by the California State Department of Education and currently employed by the OUSD, estimates that one dwelling unit would generate an average of 0.79 students: 0.43 students who would attend Kindergarten through grade six, 0.12 students who would attend grades seven through eight, and 0.24 students who would attend grades nine through twelve. The State's student generation rates are used by school districts that have not developed rates for their local jurisdictions, and are a result of statewide sampling that

[1] Lapkoff & Gobalet Demographic Researchers, as OUSD's consultants, proposed this rate in 2002.

incorporates varying dwelling unit types, households, and other demographic characteristics across the state and which may not reflect the actual characteristics of the local area.

Senate Bill 50 (SB 50)

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), restricts the ability of local agencies, such as the City of Oakland, to impose additional mitigation measures or deny land use approvals on the basis that public school facilities are inadequate. SB 50 establishes the base amount of allowable developer fees at $2.24 per square foot for residential construction and $0.36 per square foot for commercial construction, which are meant to fully mitigate any impacts. Public school districts can, however, impose higher fees provided they meet the conditions outlined in the act. Private schools are not eligible for fees collected pursuant to SB 50. Payment of these required fees is the State-mandated mitigation measure for impacts to affected public schools under CEQA.

Parks and Recreational Facilities

The City of Oakland's Office of Parks and Recreation (OPR) manages the City's parks and recreation centers within the city boundaries, and Oakland's Public Works Agency maintains the parks and park facilities. The City of Oakland manages approximately 2,942 acres of park land.

Oakland's parks are categorized by size and intended service area and defined in the Open Space, Conservation, and Recreation (OSCAR) Element of the Oakland General Plan. Generally, local-serving parks provide recreation opportunities for the local community surrounding the park, rather than the city as a whole. Region-serving parks are 25 acres or larger, and include Lakeside, Joaquin Miller, and portions of Redwood-Roberts Parks. Community parks, such as Montclair Park and Dimond Park, range in size from five to 20 acres and serve a one-mile radius in hill areas and a 0.5-mile radius in flatlands. Neighborhood parks range in size from one to 10 acres and serve a 0.5-mile radius in the hills and a 0.25-mile radius in the flatlands. Oakland also has several classifications of miniparks, which are generally less than one acre in size and serve a 0.25-mile radius in the hills and 0.125-mile radius in the flatlands. Linear parks vary in size and service area and are intended to protect and provide linear access to a natural feature, such as a creek or shoreline, and connection between two points. Special use parks also vary in size and service area (typically citywide), and generally are areas for specialized or single-purpose activities.

The East Bay Regional Park District (EBRPD) is responsible primarily for acquiring and developing regional parks, open spaces, and regional trails throughout the East Bay, and also provides open space and recreational facilities within Oakland's city limits. EBRPD parks in Oakland include the 271-acre Leona Canyon Regional Open Space Preserve; the 1,220-acre Martin Luther King, Jr. Regional Shoreline Park; the 660-acre Robert Sibley Volcanic Regional Preserve; and the 100-acre Roberts Regional Recreational Area.

The project site is within the southwestern portion of the Fruitvale Planning Area, abutting the San Antonio Planning Area to the west of the project site, as defined in the Open Space,

Conservation and Recreation (OSCAR) Element of the Oakland General Plan. The San Antonio Planning Area and the Fruitvale Planning Area, as a whole, contain two community parks, twelve neighborhood parks, seven miniparks, two linear parks, and four special use parks.

Two City of Oakland neighborhood recreational facilities are located within one-half mile of the project site: Josie de la Cruz/Sanborn Park, a 1.9-acre park located at 1637 Fruitvale Avenue that also includes the Carmen Flores Recreation Center; and Garfield Park, a 2.56 acre softball field, located adjacent to Garfield Elementary School at 2260 Foothill Boulevard. Additional neighborhood parks are located within an approximately one-mile radius of the project site: Foothill Meadows Park, a 1.6-acre park located at 3705 Foothill Boulevard; Franklin Park, a 2.05-acre park located at 1010 East 15th Street; Manzanita Park and Recreation Center, a one-acre park located at 2701-22nd Avenue, and San Antonio Park and Recreation Center, an 11.6-acre park located at 18th Avenue and Foothill Boulevard. Fruitvale Bridge Park is a 0.10-acre linear park located along the Estuary at 3205 Alameda Avenue, within one-mile of the project site. **Figure IV.G-1** identifies nearby park facilities in the project site vicinity.

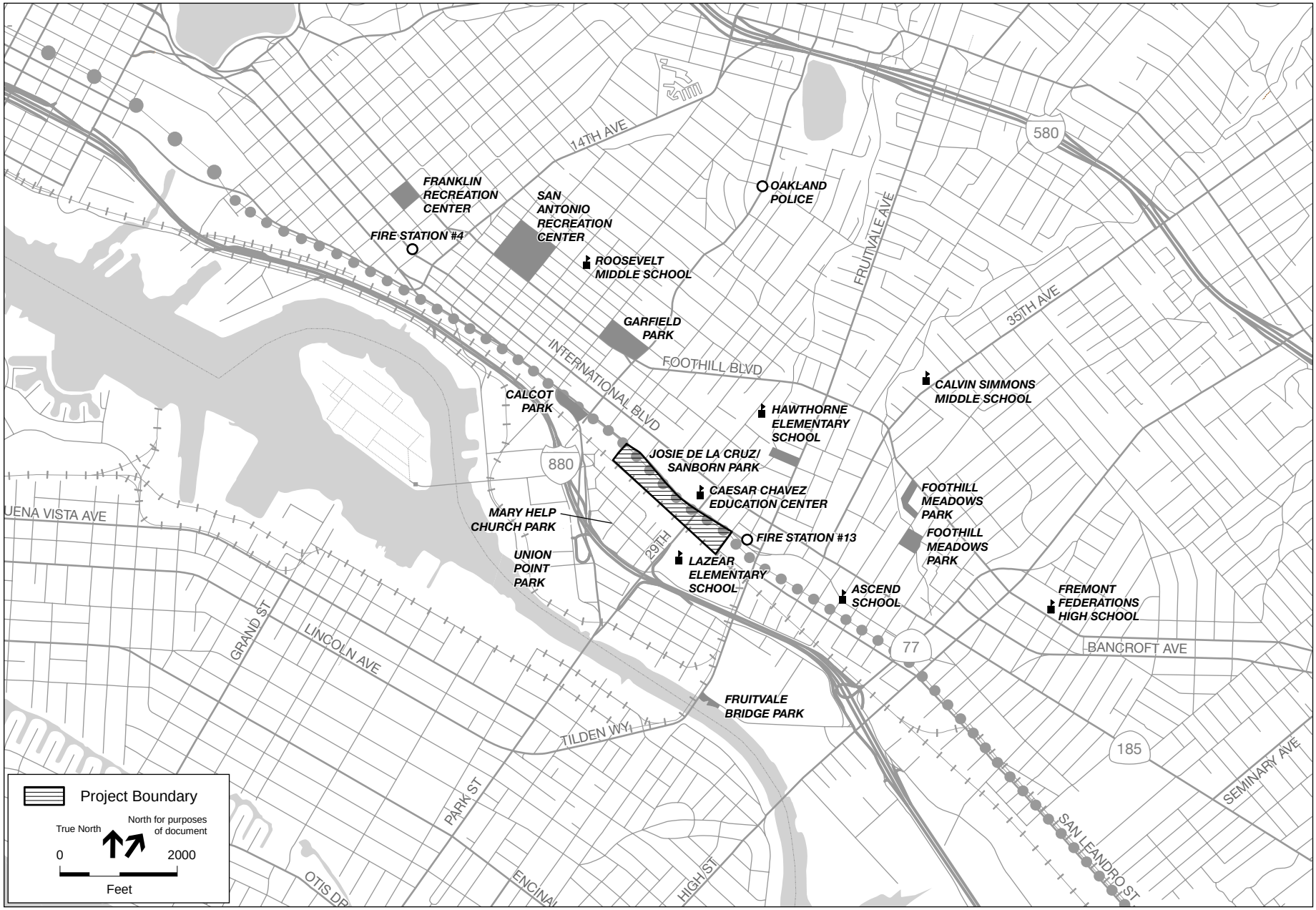
Schoolyards, although not always open to the public, provide additional recreational facilities and open space. Schools in the broader area include Lazear (whose playfield is located along 29th Avenue) and Hawthorne Elementary Schools, Roosevelt and Calvin Simmons Middle Schools, Fremont Federations High School, and the Caesar Chavez Education Center.

The City's OPR also operates several community-based centers located throughout city. The centers offer various public programs, including recreation, sports, arts and culture, computers, general learning, and after-school activities. Centers located within approximately 1.5 miles of the project site, include the San Antonio Recreation Center at 1701 East 19th Street in San Antonio Park, the Carmen Flores Recreation Center at 1637 Fruitvale Avenue, and Manzanita Recreation Center at 2701 22nd Avenue.

Service Standards

The General Plan OSCAR Element, using National Recreation and Park Association guidelines, "with modifications made to reflect the fact that Oakland is a mature, relatively dense city with a limited supply of vacant land" identifies a level of service standard of ten acres of parkland and four acres of local-serving parks per 1,000 residents. This standard is generally used to determine where there is unmet needs and to prioritize future capital investments. The estimated 3,073 acres of total parkland available within Oakland's city limits (including region-serving parks managed by EBRPD) provides about 7.5 acres of parkland per 1,000 residents. Local-serving parks[2] provide an estimated 1.3 acres per 1,000 residents, well below the City's service standard goal. The Fruitvale Planning Area, which contains the project site, provides far less than the citywide average, and thus does not meet the citywide goal of four acres of local-serving parks per 1,000 residents.

[2] Local-serving parks are parks that "meet the active recreational needs of the community" surrounding the park, rather than the City as a whole (OSCAR, p. 4-9).



SOURCE: ESA, 2007

Gateway Community Development Project . 204358

Figure IV.G-1
Public Services Providers, Parks, and Recreation Facilities

Oakland's per capita standards for parks identified in the OSCAR Element are based on National Recreation and Park Association guidelines, "with modifications made to reflect the fact that Oakland is a mature, relatively dense city with a limited supply of vacant land" (City of Oakland, 1996).

The Fruitvale Planning Area, which contains the project site, and the adjacent San Antonio Planning Area, do not meet the adopted citywide goal of 4 acres of local-serving parkland per 1,000 residents (excluding regional open spaces and special purposes parks), and has an existing shortage of park space. According to the OSCAR Element, the Fruitvale Planning Area has an existing shortage of park space with the lowest open space acreage of all of the City's planning areas: approximately 0.68 acres of parkland/schoolyard per 1,000 residents, the lowest per capita ratio in the City. The adjacent San Antonio Planning Area contains about 0.78 acre of park/schoolyard area per 1,000 residents, also well below the current citywide ratio (1.33 acres per 1,000 residents) and the citywide goal of four acres per 1,000 residents. The OSCAR Element was drafted in 1995; therefore, the ratio of parkland/school yard area per 1,000 residents from the OSCAR Element may have increased or decreased as a result of changes in parkland/school yard area acreage and/or population within the planning areas that have occurred since 1995. None of the planning areas within the City currently meet the goal of four acres of parkland per 1,000 residents. The West Oakland Planning Area has the highest acreage at about 2.43 acres of parkland per 1,000 residents. In general, the project site vicinity is already underserved by parks and open spaces. To alleviate this, OSCAR's recommendations for the Fruitvale Planning Area include creating new parks below International Boulevard and along the Estuary, enhancing and upgrading existing parks, and improving access to parks within adjacent planning areas.

Impacts and Mitigation Measures

Significance Criteria

A project may result in a significant adverse impact on the environment if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives for any of the following public services:

    - Fire protection;
    - Police protection;
    - Schools;
    - Parks; and,
    - Other public facilities (libraries and public works, etc.)

2. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or,

3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impacts and Mitigation Measures

Police Services Impacts

Impact PS-1: The increased population and density resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services. (Less than Significant)

The project would redevelop the site and substantially increase the daytime and nighttime population in the project area. The estimated 1,607 new residents and approximately 60 to 120 new jobs (or employees) could result in an increase in reported crimes.

Increases in the number of reported crimes could lead to an increase in response times, which depend on OPD having adequate staff. The project site would be served by police personnel who work in the main police station at 455 7th Street, approximately three miles northwest of the project site. Additionally, the increased economic base that the project would introduce could increase tax revenue and create greater financial resources for police services.

Although the Department has indicated that additional police personnel and equipment would be required in order to maintain adequate levels of service in the project area and Citywide, the Department also indicated that it could adequately meet the increased demand for policing services in the project area without the need to construct new facilities or expand existing facilities (Breshears, 2005). Assuming that OPD is provided with additional personnel and equipment, the project would not be anticipated to affect police response times (Breshears, 2005). The project would not, however, require the construction of new governmental facilities or physically altered government facilities that, in turn, would result in significant environmental impact. Therefore, the project would not result in a significant impact on the provision of police protection services.

As discussed in the Estuary Policy Plan EIR, increased employment, economic activity, and public activity resulting from the project may have a beneficial effect on the safety of the area. Existing underused areas that have low daytime and nighttime population, and that are often difficult to police, would be replaced with high-density residential uses and other daytime and nighttime activities. This would introduce more street surveillance and activity and reduce the number of underused and vacant lots. Also, the project site plan and building designs could reduce the potential for crimes such as vandalism and vagrancy.

The Oakland Police Department recommends that preventive design measures, such as appropriate exterior building materials (e.g., anti-graffiti materials at the ground levels), landscaping, lighting, and security alarms and door locks, be incorporated into final project building designs for all new development. As part of standard development practices, the project plans would be reviewed by OPD, and the project applicant would be required to incorporate OPD's recommendations into the final project design.

To ensure that the project would not adversely affect the ability of the Oakland Police Department to deliver adequate services to the project area and vicinity, the project applicant would incorporate design standards, such as adequate public lighting, landscaping and buffering that provides visual access and "safe" places (in addition to compliance with the Uniform Building Code) into project plans. These features would be required as part of the City's conditions of approval to the project.

Any large event on the project site would require an Oakland Police Department Special Event Permit which would allow event-specific police needs (i.e., traffic management, public safety, etc.) to be identified and a case-by-case basis.[3] Specific issues addressed by OPD Special Event Permit include the availability of onsite and offsite parking availability at the event location, estimated number and target age of attendees, and the provision of private security.

Mitigation: None Required.

Fire Protection and Emergency Medical Services Impacts

Impact PS-2: The increased population and density resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities. (Less than Significant)

Fire Station 13 is the primary station to respond to calls originating from the project site. Fire Station 13 is located at 1225 Derby Avenue, several hundred feet from the project site. Secondary assistance would be provided by Station 4, located at 1235 E. 14th Street, approximately one and one half miles from the project site. Approximate response time to the project site is estimated to be 4 to 6 minutes, within the goal of 7 minutes or less 90 percent of the response time established by the City of Oakland. (Response time is measured from receipt of the call at dispatch until the first unit arrives on the scene of the emergency.)

The approximately 1,607 new residents and approximately 60 to 120 new employees resulting from the project could increase the number of calls for fire and emergency service. However, the Fire Department indicates that it would be able to provide adequate fire suppression and emergency medical response services to the project site, with existing staff, and that the project

3 Large, public events held in public parks also require a Park Use Permit obtained from the Oakland Office of Parks and Recreation.

would not require development of new or physically altered facilities. In accordance with the California State Fire Code, the Fire Department would require that fire prevention measures, such as automatic sprinklers, smoke detectors, fire alarm systems, and fire resistant construction, be incorporated into final project plans for each building. All appropriate building and fire code requirements would be incorporated into project construction. The Fire Department would review the project, including provisions for onsite access, exits, and any necessary special equipment to assist firefighters on-site. The project applicant would be required to incorporate the Fire Department's recommendations into the final project.

The project would incorporate, as recommended by the Fire Department, onsite emergency equipment, such as Automatic Emergency Defibrillators (AED) and special equipment to assist firefighters in performing fire suppression and emergency response operations. Also, to further reduce the need for emergency response and new staff to serve the project site, the project sponsor would provide occupants (residents and non-residential tenants) with fire prevention and public education information to reduce hazards and risks. These features would be required as part of the City's conditions of approval to the project and would supplement the standard fire prevention measures required by the California State Fire Code.

Mitigation: None Required.

Public Schools Impacts

Impact PS-3: The students generated by the project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools. (Less than Significant)

The project would construct 810 new residential units on the project site that would increase the on-site population, including increases in the number of school-age children on the site that could attend OUSD public schools. As discussed in the *Environmental Setting*, above, two student generation rates can be employed to estimate the number of school-aged children that would result from the proposed project: one developed by Lapkoff & Gobalet Demographic Researchers (0.1 students per market-rate multifamily unit, equally distributed among elementary, middle, and high schools) and one developed by the California State Department of Education and currently used by the OUSD (average 0.79 students per dwelling unit). Using the former rate, and assuming all 810 residential units to be market-rate, the project would generate 81 school-aged children. Using the latter rate, the project would generate a total of 640 school-aged children: 349 students who would attend kindergarten through grade six, 97 students who would attend grades seven through eight, and 194 student students who would attend grades nine through twelve.

The actual number of school-aged children attributable to the project ultimately depends on specific factors, including the density and types of multi-family housing proposed, average household sizes for project households, current shares of population represented by school-age children for comparable areas of Oakland with similar types of multi-family housing, and trends

in the age distribution of the population. The actual number of school-aged children attributable to the project is most likely between the two estimates. However, because the project would consist of new, high-density housing in multifamily development and high-rise towers, and given the distribution of unit sizes (88 percent one- and two-bedrooms, and 12 percent 3-bedrooms), the number of persons per household is estimated to be lower than average for Oakland overall and closer to the Lapkoff & Gobalet estimate. Furthermore, the project would include market-rate rates which generally appeal to two-person professional households with fewer school-aged children, compared to affordable or larger units.

As noted above, school-age children living at the project site would live within attendance areas of the following OUSD public schools: Lazear Elementary School, Roosevelt Middle School, Fremont Federation High School. Additionally, the following OUSD (and autonomous) school are located in the project vicinity: Hawthorne Elementary School, Calvin Simmons Middle School, Caesar Chavez Education Center, and ASCEND School.

Table IV.G-2 presents location, class size, enrollment and capacity information for the schools mentioned above. As indicated in the table, most school in the area and meet or exceed student capacity thresholds and would be strained by the proposed project.

If introduced over a short period of time, the capacity of elementary schools in the project vicinity may be exceeded by the possible addition of 349 additional elementary school age students and may result in a need for a new elementary school, the construction of which could result in potentially significant environmental impacts. Since the project is proposed to be built in multiple phases, the increase in the number of students generated from the project and the impact on OUSD schools would occur incrementally.[4] Furthermore, according to the California Department of Education, in Alameda County approximately 11.8 percent of all students attended private schools during the 2003-2004 school year. The 2000 U.S. Census estimates this rate to be approximately 13.6 percent for all elementary and high school students in Oakland. Thus, it could be assumed that a similar percentage of the students generated by the project would attend private schools. This would further decrease the impact on public schools in the project vicinity.

Students living at the project site would be able to attend nearby autonomous schools and other nearby schools if sufficient capacity exists at the time of their enrollment. In addition, the school environment for OUSD is somewhat uncertain. OUSD is currently under State administration, and is faced with continuing budget problems, declining enrollment, and the impact of the current No Child Left Behind federal law, passed in 2002, all of which make it difficult to assess future school capacity or the configuration of schools in the future. OUSD is currently in the process of revising its student enrollment system, which may result in further changes to how OUSD assigns students to schools throughout the city (OUSD, 2005).

[4] The project is anticipated to be developed in six phases over a 15- to 20-year period. The developer would initiate each phase only after the preceding phase is completed and occupied.

TABLE IV.G-2
ENROLLMENT AND CAPACITIES OF OUSD SCHOOLS IN PROJECT VICINITY

Name of School	Address	Grades	Average Class Size	2005-2006 Enrollment	School Capacity[a]
Lazear Elementary School	824 29th Avenue	K - 3 4 - 8	16 30	352	-1
Hawthorne Elementary	1700 28th Avenue	K - 5	30.5	123	+5
Calvin Simmons Middle School	2101 35th Avenue	6 - 8	27.6	718	+5
Roosevelt Middle School	1926 19th Avenue	6 - 8	27.9	811	+5
Fremont Federation High School[b]					+5
• College Preparatory and Architecture Academy	4610 Foothill Boulevard	9 - 12	20.2	363	-
• Mandela High School	4610 Foothill Boulevard	9 - 12	23.1	354	-
• Media College Preparatory	4610 Foothill Boulevard	9 - 12	22.2	377	-
• Roberson School of Visual and Performing Arts	4610 Foothill Boulevard	9 - 12	23.1	390	-
Caesar Chavez Educational Center[b]					0
• Think College Now Elementary	2825 International Boulevard	K - 4	19.6	208	-
• International Community Elementary School	2825 International Boulevard	K - 5	18.7	244	-
• Urban Promise Middle School Academy	3031 East 18th Street	6 - 8	26.7	231	+2
ASCEND Elementary School[b]	3709 East 12th Street	K - 8	23.1	270	0

[a] Number reflects the status of the school's capacity and enrollment. The rating ranges from -5 (highly underutilized campus) to +5.
[b] The campus is part of the New Autonomous Small Schools (NASS) program.

SOURCE: Ed-data, 2007; Nakadegawa, 2007. OUSD Long Range Facilities Master Plan, 2007

Pursuant to Senate Bill 50 (SB 50), the project sponsor would be required to pay school impact fees established to offset potential impacts on school facilities. Therefore, although the project could result in additional students and overcrowding within OUSD facilities, payment of the fees mandated under SB 50 is the mitigation measure prescribed by the statute, and payment of the fees is deemed full and complete mitigation. Therefore, no mitigation is required.

Mitigation: None Required.

Parks and Recreation

Impact PS-4: The proposed project would increase the onsite resident population, and has the potential to increase the use of existing neighborhood and regional parks or other recreational facilities, resulting in substantial new or accelerated physical deterioration. (Less than Significant)

Usable Open Space Proposed with the Project

Planning Code Requirements

The project proposes to rezone the project site from the existing designation of M-30 General Industrial Zone) to C-45 Commercial Thoroughfare Commercial Zone. In the C-45 Zone, minimum usable open space requirements are prescribed in accordance with the R-80 High-Rise Apartment Residential Density Zone regulations (Oakland Planning Code Section 17.30.180). Also, in the C-45 Zone (as required by the R-80 Zone), a project may provide a mix of private ("individual") and group ("shared") usable open space areas at a ratio of 1:2 (one square foot of private usable open space equals two square feet of required group usable open space) (Oakland Planning Code Section 17.126.020).

The C-45 Zone (as required by the R-80 Zone) requires that 150 square feet of usable group open space shall be provided per regular dwelling unit. Alternatively, a minimum of 75 square feet (or 50 percent of the required group space standard) of individual private open spaces per regular dwelling unit, could be provided per Section 17.126. 020. As discussed in Chapter III (Project Description), the proposed project would provide a mix of private and group usable open space areas for project residents and tenants, as well as usable open space areas onsite that would be accessible to the public.

- Group Usable Open Space. The project would provide approximately 150 square feet of group open space for the 366 units (approximately 45 percent) that would not have private decks or yards. This would total 165,911 square feet of group open space onsite, which is more than three times the 54,900 square feet required for 366 units. As depicted in **Figures III-8a and 8b**, Open Space Calculation, in Chapter III (Project Description) , these spaces would be provided at grade of all proposed buildings and on the third floor podium ("plaza") levels of each building.

- Private Usable Open Space. The proposed project would provide approximately 75 square feet (pursuant to the allowance in Section 17.126.020 of the Oakland Planning Code) of private open space for the remaining 444 (approximately 55 percent) of the project units. The individual private spaces would be in the form of private yards at grade for the proposed townhouses and private decks for the multifamily units above grade. This totals 33,300 square feet of private space onsite.

- Publicly-Accessible Open Space Onsite. The project would provide an approximately 8,000 square-foot, linear open space and small children's park would be located between Sites II and III. Although proposed as part of the project and located within the project

site boundaries, this are would also be accessible to the public as well as project residents and tenants.

In summary, the project proposes to satisfy the Planning Code requirements by providing 150 square feet of common space designated for 366 units (150 square feet each or 157,911 square feet total) and by providing 75 square feet of private open space areas for 444 units (33,300 square feet total). The project will supplement its Code-required space with the approximately 8,000 square-foot publicly-accessible open space and small children's park on the site.

Provision of Public Open Space in the Project Area

The project site is located in the Fruitvale Planning Area which is underserved by parks and open space, providing well below the adopted citywide goal of 4.0 acres of local-serving parkland per 1,000 residents. According to the 1995 OSCAR Element of the General Plan, the Fruitvale Planning Area has the lowest per capita parks and open space acreage of all of the City's planning areas, providing about 0.68 acres of local-serving parkland per 1,000 residents. The 1995 OSCAR Element also estimated the citywide ratio of local-serving parkland as 1.33 acres per 1,000 residents.[5] Using estimated 2005 population for the Fruitvale Planning Area and assuming local-serving park acreage in the Area did not change substantially between 1995 and 2005, the 2005 baseline service ratio is approximately 0.57 acres per 1,000 residents.

The "4.0 acres per 1,000 residents" park standard identified within the OSCAR Element is a policy goal, but not a mandate for new development. Therefore, for comparative purposes, **Table IV.G-3** presents the change in the service ratio in the Fruitvale Planning Area over time.

TABLE IV.G-3
PARK SERVICE RATIO IN THE FRUITVALE PLANNING DISTRICT

	1995 OSCAR Element	2005 Baseline	2010 w/ Project Population	2010 w/o Project Population	2025 w/ Project Population	2025 w/o Project Population
Population	35,700	42,843	46,610	45,003	49,010	47,403
Local-Serving Parkland Acreage[a]	24.4	24.4	24.4	24.4	24.4	24.4
Parkland Service Ratio[a,b]	0.68	0.57	0.52	0.54	0.49	0.51
Citywide Service Ratio (Actual)[b]	1.33	1.33	1.33	1.33	1.33	1.33
Citywide Service Goal[b]	4.0	4.0	4.0	4.0	4.0	4.0

[a] Assumes no change in parkland acreage over time, including improvements proposed by the project.
[b] Assumes no change through 2025.

SOURCE: OSCAR Element of the Oakland General Plan, 1995. Table IV.K-2 in Section IV.K, *Population, Housing, and Employment,* in this EIR.

5 Service ratio is calculated by total local-serving parkland acreage by 1/1000 population.

The proposed project would increase the permanent on-site daytime and nighttime populations at the site, thus increasing the demand for parks and recreation facilities. At build-out, it is anticipated that the project would result in a resident population of approximately 1,607 to the Fruitvale Planning Area and provide approximately 49 net new jobs (i.e., non-residents employees and visitors that could use nearby facilities).[6] With the proposed project assumed in place at 2010 (consistent with the Near-Term 2010 scenario analyzed in this EIR), the service ratio in the Planning Area would be approximately 0.52 acres (compared to 0.54 acres with the project) in 2010. This assumes that no new public or publicly-accessible acreage, including that proposed by the project, is added to the Planning Area prior to 2010. The service ratio in 2025 with the project would be approximately 0.49 acres (compared to 0.51 acres without the project).

To illustrate the magnitude of shortfall that exists in the Planning Area, without the project, approximately 165 acres of local-serving parkland would need to be added to the Planning Area to attain the citywide goal of 4.0 acres per 1,000 residents by 2025 within the Planning Area; however, approximately 2.6 acres would needed to maintain the 2005 baseline service ratio of 0.57 through 2025 within the Planning Area. Because the Fruitvale Planning Area is largely built out, opportunities for acquiring the acreage necessary to attain these levels would not be feasible, as recognized in the OSCAR Element. Similarly, the narrow configuration of the project severely limits opportunities to provide sizeable new public or publicly-accessible open space within the project site. As indicated above, the project proposes an 8,000 square-foot (0.18 acres) of publicly-accessible open space onsite.

Proposed Improvements to Park and Recreation Facilities

Pacific Thomas Capital, the project sponsor, proposes to implement the following park and recreation-related components (in addition to others that may be implemented) as part of the proposed Development Agreement that the project sponsor and the City of Oakland intend to enter into, as described in Chapter III of this EIR:

- **Caesar Chavez Educational Center** - Long-term funding for the Ceasar Chavez Education Center Open Gym/ Playfield (approximately 16,500 square-foot gymnasium and 2.6-acre outdoor playfield), directly north of the project site, across East 12th Street ; and

- **Publicly Accessible On-site Park** - Development of a publicly-accessible children's park onsite (implemented with Site III).

The effect of these proposed improvements would relieve to some degree the increased demand for park and recreational facilities in the severely underserved Fruitvale Planning Area. In particular, commitments to long-term funding at the Ceasar Chavez Educational Center Open Gym/Playfield, would allow this actively-used, high-quality facility at the northwest corner of 29th Avenue and East 12th Street to continue to operate as a quasi-public use during nighttime and weekend daytime hours. Funding would target the approximately 16,500 square-foot indoor

6 As indicated in Section IV.K, Population, Housing, and Employment, in this EIR, there are approximately 48 existing jobs onsite and 97 new jobs anticipated with the proposed project.

gymnasium and the nearly 2.6-acre outdoor playfield. Both the City of Oakland and OUSD, which currently co-fund the operation and maintenance of the facility, have indicated the exhaustion of funding for the facility in the near future, thus, the project will ensure the ongoing use of this community facility by the public during certain non-school hours. As part of the Development Agreement, the project sponsor has proposed similar commitments that would enhance other existing nearby parks and/or recreational facilities by improving physical access and conditions, amenities, and characteristics that affect real and perceived safety. As a result, the proposed project would not provide substantial new publicly-accessible park and recreation space (except for the proposed 8,000 square-foot, on-site park and children's play area) within the densely-populated Fruitvale Planning Area; however, the beneficial components of the project would ensure that impact to park and recreation services and facilities would be less than significant. In addition, the proposed improvements would occur to existing local-serving facilities and would not result in any significant secondary effects not previously identified in this EIR.

Without implementation any one of the components described above as part of the Development Agreement, the project would result in a "potentially significant" impact by exacerbating low parkland-to-population ratio in a highly-impacted Planning Area. Therefore, the following mitigation measure shall apply and reduce that potential environmental effect is to less than significant:

> **Mitigation Measure PS-4** ***(Provisional, to be implemented if changes to project result in significant impacts*****): If for any reason the foregoing project components that address existing park and recreation needs in the Fruitvale Planning Area are not implemented with the proposed project, the project sponsor shall pay to the City of Oakland in-lieu fees in an amount adequate to address the resulting effect of the project (without implementation of the foregoing components) on park and recreation facilities within the Fruitvale Planning Area.**

Implementation of Provisional Mitigation Measure PS-4, if required as a result of the proposed project components not being implemented, would reduce the impact to park and recreation services and facilities to less than significant.

Mitigation: None Required.

Cumulative Impacts

Impact PS-5: The increased population and density resulting from the project, in conjunction with population and density of other foreseeable development in the city, would result in a cumulative increase in the demand for public services, parks, and recreation facilities. However, the project's contribution to such impacts would not be cumulatively considerable. (Less than Significant)

Police Services and Fire Protection/Emergency Medical Services

The increased population and density resulting from the project, in conjunction with population and density of other foreseeable development in the city, would result in a cumulative increase in demand for police services and fire protection/emergency medical services. This cumulative increase could result in the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives. However, future development would occur pursuant to General Plan policies and mitigation measures adopted for the Land Use and Transportation Element (LUTE) EIR that reduce the potential impact on fire and police services to less-than-significant levels.

For the project, the Oakland Police and Fire Departments do not anticipate the need for any new physical facilities to adequately service the resulting increase in daytime and nighttime population on the project site. Additionally, the project would incorporate design measures aimed to heighten safety (through lighting, access, and visibility) to public spaces and would provide administrative space for onsite police activities and would develop and emergency response and security plans in coordination with the relevant City departments. Therefore, the project's contribution to the significant cumulative impact on police services and fire protection/emergency medical services would be less than significant.

Public Schools

School-aged children generated by the project, in conjunction with those generated by other foreseeable development in the city, would result in a cumulative increased demand that could require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools. However, pursuant to Senate Bill 50 (SB 50), the project sponsor of all future projects would be required to pay school impact fees established to offset potential impacts on school facilities. Therefore, although the project could result in additional students and overcrowding within OUSD facilities, payment of the fees mandated under SB 50 is the mitigation measure prescribed by the statute, and payment of the fees is deemed full and complete mitigation.

Parks and Recreation Facilities

As stated in OSCAR and noted above, the recommended ratio of local serving parks in the Fruitvale Planning Area is 0.68 acres per 1,000 residents, well below the citywide ratio of 1.33 acres per 1,000 residents, which is a Assuming minimal future change in the amount of local-serving park acreage in the Planning Area in the cumulative year (2025), and using the estimated 2025 population for the Planning Area, the ratio for the Planning Area in 2025 (*excluding* the proposed project) would be approximately 0.51 acres per 1,000 residents. The proposed project would introduce approximately 1,607 new residents to the Planning Area at build-out (Year 2021), in which case the ratio would be approximately 0.49 acres per 1,000 residents (*including* the proposed project).[7]

The proposed project, in conjunction with other planned and foreseeable development under the cumulative scenario, would contribute to the need for new or expanded park and recreational facilities citywide and further decrease the ratio of local-serving parkland to residents. Since cumulative development would potentially result in the need for new or expanded park and recreation facilities, and since the City does not currently meet the adopted citywide goal of four acres of local-serving parks per 1,000 residents, the effect on parks and recreational facilities could be considered a significant cumulative impact citywide. However, the proposed project would exceed the required usable open space area per the zoning requirements and, as part of the proposed Development Agreement, would fund substantive park off-site improvements to existing facilities in the Planning Area. Additionally, the project would not substantially degrade, or represent a considerable contribution to, the future ratio of the local-serving parkland acreage per 1,000 residents within the Fruitvale Planning Area. Therefore, the project's contribution to the significant cumulative impact would be less than significant.

Mitigation: None Required.

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H. Utilities and Services Systems

Introduction

This section describes existing public utilities on and in the vicinity of the Gateway Community Development project and evaluates the impact of the proposed project on the provision of public utilities and possible adverse physical impacts to the environment that could result from constructing new or expanded facilities. Topics analyzed in this section include public water supply, sanitary sewer (wastewater), stormwater drainage facilities, solid waste, and gas and electricity services. This section focuses on the effect the proposed project would have on the ability of the City of Oakland and other service providers to effectively deliver these services and utilities and identifies potential impacts.

Setting

Water Service

The East Bay Municipal Utility District (EBMUD), a publicly owned utility, supplies water and provides wastewater treatment to parts of Alameda and Contra Costa counties, including the city of Oakland. EBMUD supplies water to approximately 1.3 million people within its estimated 325-square-mile service area, and the city of Oakland comprises slightly less than one-third of EBMUD's customers.

Water Supply System

The EBMUD water supply system consists of a network of reservoirs, aqueducts, treatment plants, and distribution facilities. This network extends from its principal water source, the Mokelumne River Basin in the Sierra Nevada mountain range, to water treatment plants or to reservoirs[1] within its service area, and ultimately to residences and businesses in the East Bay. On average, 95 percent of the water delivered by EBMUD comes from the Mokelumne River watershed, with the remaining five percent originating as runoff within the service area. EBMUD has water rights and facilities to divert up to a maximum of 325 million gallons of water per day (mgd), subject to the availability of Mokelumne River runoff and prior water rights of other users. Also, untreated water from local and Sierra reservoirs is transported to one of EBMUD's six water treatment plants, which can filter and process more than 375 mgd. The Orinda Water Treatment Plant, which serves the city of Oakland and several surrounding communities, has the largest output, with a maximum capacity up 200 mgd, and in early April 2005 had a seven day average production of 111 mgd (EBMUD, 2005).

Water Demand

In early April 2005, EBMUD experienced an average demand of 195.3 mgd (EBMUD Daily Water Supply Report, 2005). During non-drought years, EBMUD customers demand an annual

[1] EBMUD's East Bay service area includes five reservoirs: Briones, Chabot, Lafayette, San Pablo, and Upper San Leandro.

average of about 220 mgd of water. By 2020, EBMUD estimates that water demand will increase to approximately 277 mgd in its service area, although, with successful implementation of water recycling and conservation programs, this demand could be reduced to about 229 mgd (EBMUD Urban Water Management Plan 2005).

As discussed in EBMUD's Urban Water Management Plan 2000, EBMUD adopted a long-term Water Supply Management Program (WSMP) in 1993. The WSMP serves as a planning guide for the reliable provision of quality water to the EBMUD service area through 2020. The WSMP analysis indicates that during a severe drought,[2] the current water supply is not sufficient to meet customer demand. An estimated supplemental supply need of 87 mgd of additional water supply (representing a 42 percent deficiency) would be needed to limit the deficiency to 25 percent. To limit the water supply deficiency to 25 percent by 2020, a supplemental supply of 154 mgd (representing a 67 percent deficiency) would be needed. EBMUD anticipates that customer demand will continue to exceed supply during severe drought conditions until a supplemental water supply project is implemented and a dependable supply is guaranteed for existing and future needs.

To meet 2020 projected water needs and address deficient supply during severe droughts, EBMUD is working to identify supplemental water supplies, recycled water programs, and continued implementation of water conservation measures.

Water Supply Projects

In September 1995 (two years after adopting its long-term Water Supply Management Program), EBMUD authorized a Water Supply Action Plan to identify supplemental water supplies during multiple-year droughts by pursuing several water supply components concurrently. As a result, on December 8, 2000, the U.S. Bureau of Reclamation, EBMUD, and Sacramento parties mutually agreed to develop a joint water supply from the Sacramento River. Components of this action include a diversion one-mile north of the city of Freeport, pumping facilities, treatment facilities, and transmission pipes. A federal Record of Decision was issued in 2004, and the engineering design work is expected to be complete by the spring of 2006. Construction is expected to be complete by 2009. Once completed, the Freeport Project will provide 165,000 acre-feet of water during a three year drought. This would equate to 49 mgd to incorporate with other water supplies available and distribute to the EBMUD service area (Rehnstrom, 2005).

Other resource options identified in the 1995 Water Supply Action Plan (and its 1996 revision) for meeting future water needs include the Bayside Groundwater Project, which involves storing excess water in a deep underground aquifer beneath the cities of San Lorenzo/San Leandro to increase the available supply of water in the event of a drought. Environmental review for the project has been completed and the project is anticipated to begin operation in 2008, following Board approval and a one-year construction period. A joint effort by the Bay Area's four largest water agencies, EBMUD, the San Francisco Public Utilities Commission, the Contra Costa Water District and the Santa Clara Valley Water District to explore regional desalination facilities to

[2] Defined by EBMUD as the third consecutive year in a series of multiple dry years.

meet future water needs is also underway, and a detailed feasibility and environmental study is anticipated to be completed by December 2006.

Recycled Water

The goals of using recycled water are to supplement the existing potable water supply and assist in meeting future water demands. Water for recycling is drawn from water reservoirs containing untreated water, and from wastewater treatment plants. EBMUD's 1996 Nonpotable Water Policy No. 73 mandates that all customers use recycled water for non-domestic purposes when such water is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish, and wildlife. EBMUD currently supplies more than 8 mgd of recycled water and other nonpotable water for irrigation, industrial processes and equipment wash-down. The WSMP established goals of delivering an additional 8 mgd of recycled water by 2020, for a total of 5.8 billion gallons a year.

In January 2002, the City of Oakland adopted a recycled water ordinance that requires new developments within the city to use recycled water provided by EBMUD for common area irrigation, if recycled water is available to the development area. This requires installation of a separate non-potable water distribution system on-site.

Water Conservation

EBMUD has adopted water conservation programs to address both water supply and demand. Demand-side water conservation programs are intended to reduce overall consumption of the water supply. The 1994 Water Conservation Master Plan identifies the use of free water audits, rebates, and other incentives, regulations, education, and support activities to reduce water consumption. These programs are designed to achieve annual water savings of 16 mgd by 2020. With an additional 17 mgd expected to result from "natural replacement,"[3] the total water conservation savings in 2020 is anticipated to be 33 mgd. EBMUD's supply-side conservation measures are directed toward increasing water use efficiency before or after customer use, and include improvements within EBMUD's distribution system (i.e., leak detection, pipe replacement, and corrosion control) and water recycling programs.

Sanitary Sewer Service

In addition to providing water supply, EBMUD provides sanitary sewer treatment services to approximately 640,000 people within an 83-square-mile area of Alameda and Contra Costa counties, including the city of Oakland. The city of Oakland and about eight other communities[4] comprise the EBMUD Special District No. 1 sanitary sewer treatment service area.

[3] Natural replacement is the installation of conservation hardware such as toilets, showerheads, and faucets without participation in an EBMUD program.

[4] EBMUD's main wastewater treatment plant treats municipal wastewater from the cities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, El Cerrito, Kensington, and part of Richmond.

Wastewater Collection and Treatment

EBMUD's main wastewater treatment plant is located southwest of the Interstate 580/Interstate 80 (I-580/I-80) interchange in Oakland, south of the San Francisco/Oakland Bay Bridge. Wastewater is collected by 29 miles of interceptor lines that move wastewater from about 1,400 miles of sewers owned and operated by the jurisdictions served. As of 20005, EBMUD's wastewater treatment plant had an average dry weather capacity of 168 mgd, and an average dry weather flow of approximately 77 mgd (45 percent capacity). During wet weather, the treatment plant accepts more flow[5]; the plant has a sustainable primary treatment capacity of 320 mgd, and a maximum secondary treatment capacity of 168 mgd.[6]

The City of Oakland owns, operates, and maintains a local sanitary sewer collection system covering approximately 48 square miles, approximately 1,000 miles of pipe, and seven pump stations. The city's sewer collection system is divided into basins and subbasins. Each numbered subbasin encompasses a specific physical area, and its sewer flows are assigned to a single discharge point from the City's collection system into the EBMUD's interceptor lines. City sewer pipes range from 6 to 72 inches in diameter, with most lines pre-dating 1938 and with some parts of the system over 100 years old. Most of the system is gravity-fed, and about five pump stations service the entire area. Some areas of Oakland, such as former military bases, cemeteries, large parks, and some hillside areas, are not part of the sewer service system. Over 90 percent of the sewer customers are residential users.

Sanitary sewer facilities that would serve the proposed project site include an existing 12-inch main that flows west along 29th Avenue to a 66-inch interceptor located on East 7th Street, west of I-880, and a sewer main of unknown size that flows along East 12th Street to 22nd Avenue where it connects to a 78-inch interceptor. (Korve, 2007)

Inflow/Infiltration Correction Program

A continuing issue with respect to sanitary sewer collection has been inflow and infiltration of stormwater into the EBMUD and Oakland sewer lines, resulting in high flow levels and overflow of untreated wastewater during wet weather events. Most of the stormwater enters sewer systems by infiltration (stormwater that passes through the soil and into deteriorated sewer pipes). Inflow originates from stormwater inlets and manholes that connect to the sanitary sewer system rather than the stormwater system. In 1986, with EBMUD as the lead agency, the Wet Weather Program was initiated to improve treatment capacity for wet weather flows and reduce the amount of inflow and infiltration throughout the EBMUD collection system. The cities of Alameda, Albany, Berkeley, Emeryville, Kensington, Oakland, Piedmont and portions of El Cerrito and Richmond participate in EBMUD's Wet Weather Program. The program has resulted in four new wet weather treatment facilities, two storage basins, 7.5 miles of new interceptors, and expansion of the main wastewater treatment plant. These new facilities accommodate an increase in peak wet weather treatment capacity from 290 mgd to 775 mgd. The City's long-range sewer

5 Storage basins provide plant capacity for a short-term hydraulic peak of 415 million gallons per day (mgd).
6 *Primary* treatment involves preliminary treatment (screening) and sedimentation (the removal of solid particles from suspension by gravity). *Secondary* treatment involves biological treatment of wastewater to remove remaining organic matter.

improvements are anticipated to reduce peak regional flows from 1.1 billion gallons per day to 775 mgd.

The City of Oakland has a 25-year inflow and infiltration collection maintenance and rehabilitation program that will help eliminate overflow by reducing inflow and infiltration of stormwater to upgrade the existing system. The City's collection system is comprised of local collection mains and a network of trunk systems. The City's system capacity improvements have targeted the trunk network only and assume that the remainder of the system – the local mains – has sufficient capacity. The entire system is divided into drainage basins and subbasins. Each subbasin has a projected allocation for base flow increase based on an anticipated growth rate during the period of the inflow and infiltration collection maintenance and rehabilitation program. Growth (base flow increase) within each subbasin must not exceed projections. If exceeded, the impact of the additional growth must be analyzed on the entire City collection, and trunk system and additional system improvements would be required. If redirection of allocation from other subbasins is needed to accommodate a development project, further review and approval from the City would be required in order to determine locations and the amount of potential reallocation. If growth does not exceed projection within each subbasin, then impact analysis may be limited to the study of local mains serving the development site.

Stormwater Drainage Facilities

In Oakland, stormwater runoff is collected from the southwesterly flows from the Oakland/Berkeley hills to the developed flatlands, where it then flows primarily through underground storm drains and culverts to the San Francisco Bay, via the Oakland Estuary (directly or by way of Lake Merritt) or through the city of Emeryville.

The Alameda County Flood Control and Water Conservation District constructs, operates, and maintains major trunk lines and flood-control facilities in Oakland, and the Oakland Public Works Agency (PWA) is responsible for construction and maintenance of the local storm drainage system within Oakland's public areas and roads.

The City has prepared a comprehensive storm drainage master plan to identify existing deficiencies in the system and develop prioritized recommendations for rehabilitating the system in order to reduce localized flooding. Storm drain complaints are scattered throughout the city and are mostly related to commercial business uses. Based on these complaints, even without televised footage of actual pipes, the City has taken the position that the storm drain system is aged and would not be able to handle increased runoff flows. The City requires development projects to evaluate the onsite and offsite condition and capacity of the existing stormwater collection system and implement necessary improvements that are identified to accommodate the project. Specifically, the City requires developments to detain stormwater to the extent feasible.

Solid Waste

Waste Management and Disposal

Non-hazardous waste in the city of Oakland is collected by Waste Management of Alameda County (WMAC), which provides curbside pickup for residential, commercial and industrial non-hazardous waste, and transports it to WMAC's Davis Street Transfer Station in the City of San Leandro. The Alameda County Waste Management Authority estimates that in 2000, Oakland disposed of approximately 423,200 tons of solid waste or about 1,160 tons per day (CIWMB, 2007).

Transfer trucks haul waste to the Altamont Landfill and Resource Facility, located approximately 35 miles east of Oakland near Livermore. The Altamont Landfill has a permitted maximum daily disposal of 11,150 tons per day, ten percent of which is attributable to the city of Oakland. The Altamont Landfill has recently updated its conditional use permit, which allows for an additional capacity of approximately 40 million tons of disposal over the next 19 to 38 years (CIWMB, 2006a).

Demolition and construction debris generated in Oakland is generally hauled by contractors and local construction companies to recycling facilities in the East Bay or to the Vasco Road Landfill near the city of Livermore. The Vasco Road Landfill, owned by Republic Services of California I, LLC, is estimated to have sufficient capacity through approximately 2015 (CIWMB, 2004b).

Waste Generation and Diversion

As required by enactment of the California Integrated Waste Management Act (AB 939) in 1989 (discussed in Regulatory Framework, below), the City has prepared a Source Reduction and Recycling Element (SRRE), which is a report that describes (1) the chief characteristics of each city's waste, (2) existing waste diversion programs and rates of waste diversion, and (3) the new or expanded programs the city intends to implement to achieve the mandated rates of diversion.[7] The city of Oakland generated approximately 369,509,000 tons of solid waste in 2003. The City's waste diversion rate has increased from approximately 11 percent in 1990 to an estimated 50 percent in 2002. The City's waste diversion programs and requirements are discussed below under *Regulatory Framework.*

Energy Services

Electricity and gas service in the City of Oakland is provided primarily by Pacific Gas and Electric (PG&E), which owns the gas and electrical utility supply lines. Some users purchase energy services directly from alternate power providers. Throughout most of Oakland, electrical power is delivered via overhead distribution and transmission lines, and natural gas is distributed through underground piping. PG&E expands its services on an as-needed basis and requires the user to fund the extension of service.

[7] Waste diversion is defined as the total waste that a jurisdiction generates less the amount that is disposed at a landfill or transformation facility. Waste diversion occurs through reduction, reuse, recycling, and composting programs.

Electricity Service Demand

Following restructuring of the electricity industry in 1996, California experienced a number of problems related to energy supply and demand. These problems were largely driven by increases in demand from population and economic growth paired with insufficient local supply. Inadequate supply was due to the lack of new power plants constructed in the state, and the sale of a number of power plants to privately owned, out-of-state energy companies. As a result, Bay Area consumers have been experiencing rising costs and uncertainty regarding the supply of electricity. The State of California Energy Action Plan, adopted in May 2003, and as outlined in the Action Plan, the California Energy Commission (CEC) is currently considering applications for the development of new power generating facilities in the Bay Area and elsewhere in the state to establish adequate, reliable, and reasonably priced energy for Californians (CEC, 2005).

The project site is currently fully developed and is served by existing electric and natural gas utilities which are available in all street frontages adjoining the site.

Regulatory Framework

Water Quality, Supply, and Distribution

Safe Drinking Water Act

The U.S. Environmental Protection Agency (U.S. EPA) administers the Safe Drinking Water Act (SDWA), the primary federal law that regulates the quality of drinking water and establishes standards to protect public health and safety. The Department of Health Services (DHS) implements the SDWA and oversees public water system quality statewide. DHS establishes legal drinking water standards for contaminates that could threaten public health.

Senate Bill (SB) 610 / Senate Bill (SB) 221

Senate Bill (SB) 610, codified as Sections 10910-10915 of the California Public Resources Code, requires local water providers to conduct a water supply assessment for projects proposing over 500 housing units[8], 250,000 square feet of commercial office space (or more than 1,000 employees), a shopping center or business establishment with over 500,000 square feet (or more than 1,000 employees), or equivalent usage. Local water suppliers must also prepare or have already prepared an Urban Water Management Plan to guide planning and development in the water supplier's service area, and specifically pursue efficient use of water resources.

Stormwater Drainage

Regulations related to the quality and quantity of stormwater runoff (i.e., Federal Clean Water Act / National Pollutant Discharge Elimination System [NPDES] are discussed in Section IV.G, Hydrology and Water Quality. As previously stated, this section focuses on whether the proposed project would result in the need for new or expanded stormwater drainage facilities.

8 Senate Bill (SB) 221 similarly amended the Subdivision Map Act to ensure confirmation that public water supply is sufficient to serve proposed development projects of 500 dwelling units or more.

Solid Waste

Assembly Bill (AB) 939

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans and also mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. As required by AB 939, the City of Oakland has prepared a Source Reduction and Recycling Element (SRRE) which requires proposed development projects to undergo, as part of the required environmental review, an assessment of project impacts on the City's ability to maintain the mandated 50 percent waste diversion rates. Projects that would have an adverse effect on the City's waste diversion goals are required to include waste diversion mitigation measures to assist in reducing these impacts to less than significant levels.

Alameda County Waste Reduction and Recycling Initiative (Measure D)

In addition to AB 939, the 1990 Voter Initiative Measure D (Alameda County Waste Reduction and Recycling Initiative) mandates all cities in Alameda County to divert 75 percent of their solid waste from landfills by the year 2010.

Construction and Demolition Debris Waste Reduction and Recycling (Ordinance No. 12253 C.M.S.)

The City of Oakland's construction and demolition (C&D) debris waste reduction and recycling requirements are intended to further the goals of AB 939 and Alameda County's Measure D. As part of the application for a building permit, a project applicant is required to prepare and submit a Construction and Demolition Debris Waste Reduction and Recycling Plan (WRRP) to divert at least 50 percent of all C&D debris generated by project development from landfill disposal.

Energy

Buildings constructed after June 30, 1977 must comply with standards identified in Title 24 of the California Code of Regulations. Title 24, established by the California Energy Commission (CEC) in 1978, requires the inclusion of state-of-the-art energy conservation features in building design and construction including the incorporation of specific energy conserving design features, use of non-depletable energy resources, or a demonstration that buildings would comply with a designated energy budget.

Impacts and Mitigation Measures

Significance Criteria

A utilities and service systems impact would be considered significant if it would result in any of the following:

1. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;

2. Require or result in construction of new stormwater drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

3. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

4. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

5. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects;

6. Violate applicable federal, state, and local statutes and regulations related to solid waste;

7. Violate applicable federal, state and local statutes and regulations relating to energy standards; or

8. Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

Impacts and Mitigation Measures

Water Service

Impact UTIL-1: The project would not exceed water supplies available to serve the project from existing entitlements and resources, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects. (Less than Significant)

Pursuant to Sections 10910-10915 (SB 610) of the California Water Code, the City of Oakland submitted a request to EBMUD to prepare a water supply assessment (WSA) for the proposed project.[9] In the WSA, which was prepared in response to the City's request, EBMUD determined that the project's estimated water demand is accounted for in EBMUD's 2020 water demand projections (Kirkpatrick, WSA, July 2005). According to EBMUD, at buildout, the total increase in water demand resulting from the Gateway Community Development Project would be approximately 239,000 gpd, an increase of approximately 235,000 gpd over the existing onsite demand of 3,800 gpd. This increase constitutes approximately 0.10 percent of total EBMUD water demand. The proposed project would not change EBMUD's 2020 water demand projection and would not result in a new significant increase in water use. While the project would require water main extensions to create service connections to new buildings on each development site,

[9] A "project," as defined by SB 610, includes proposals for new residential use over 500 units; retail use over 500,000 square feet; office use over 250,000 square feet; hotel/motel use over 500 rooms; industrial use over 40 acres or 650,000 square feet; a mixed-use project including any use as large as the above; or any project that would demand water greater than the equivalent of 500 dwelling units.

which would be coordinated and financed by the project sponsor, the project would not exceed existing or projected water supply or result in the need for new or expanded water facilities.

EBMUD further recommends incorporating water conservation measures into the design and construction of all new development projects to ensure that sufficient water capacity is available through EBMUD's planning horizon year 2020. Internal conservation measures include incorporation of water-efficient equipment and devices, such as low-flush toilets, into building design; external conservation measures include the use of drought-resistant and native plants for landscaping and minimization of turf areas. Although not required to address Impact UTIL-1, the project applicant will be subject to the following uniformly-applied standard condition of approval by the City that further reduce the less-than-significant Impact UTIL-1:

> **Standard Condition UTIL-1: As feasible and applicable, the project sponsor shall implement the following water-efficient equipment and devices into building design and project plans, consistent with the Landscape Water Conservation section of the City of Oakland Municipal Code (Chapter 7, Article 10): low-, ultra-low, and dual flush flow toilets and showerheads; water efficient irrigation systems that include drip irrigation and efficient sprinkler heads; evapotranspiration (ET) irrigation controllers; drought-resistant and native plants for landscaping; and minimization of turf areas.**

Mitigation: None Required.

Sanitary Sewer Service

Impact UTIL-2: The project's projected wastewater demand would not result in the City of Oakland exceeding its *citywide* projected base flow allocation, however, it would exceed base flow allocation for Subbasins 60-04 and 62-01, which may require construction of new or expanded facilities, the construction of which could cause significant environmental effects. (Potentially Significant)

The loads on the sanitary sewer system are a factor of water use, in addition to the design, capacity, and condition of the sanitary sewer facilities. In general, the average dry-weather demand sewer flow is 90 percent of the average water use. The wet weather demand sewer flow adds a factor for inflow and infiltration of the system from stormwater and wet soils. Therefore during wet weather, peak sanitary sewer flows can be greater than dry weather flows.

Based on the *Sanitary Sewer Impact Analysis Initial Submittal* prepared by Korve Engineering (Korve, 2007), estimated sanitary sewer flow from the proposed project would result in a net increase in peak base flow over existing conditions as shown in **Table IV.H-1**, the project would result increase existing peak base flow of 30, 968 gallons per day (gpd) to an estimated 559,600 gpd (estimated peak flow) to 601,862 gpd (estimated peak wet-weather flow).

TABLE IV.H-1
EXISTING AND PROPOSED SANITARY SEWER FLOWS

Location	Existing Peak Wastewater Flows (GPD)	Proposed Base Wastewater Flows (GPD)	Proposed Peak Wastewater Flows (GPD)	Proposed Peak Wet-Weather Wastewater Flows (GPD)
West of 29th Avenue	20,954	102,030	374910	382,480
East of 29th Avenue	10,014	58,714	215,722	219,382
TOTAL	**30,968**	**160,744**	**590,632**	**601,862**

GPD – gallons per day

NOTE: Prepared in accordance with the *City of Oakland Sanitary Sewer Design Guidelines*, November 2004 (revised August 2005), a peaking factor of 2.0 was used to estimate total existing peak base flow. A 3.66 coefficient of peak flow was used to calculate proposed peak flow. The proposed peak wet-weather flows include a rate of infiltration of 1,000 gpd per acre.

Source: Sanitary Sewer Impact Analysis Initial Submittal Korve Engineering, 2007

The project site is located in Subbasins 60-04 and 62-01, where the total allocation for these two sub basin is 0.07 mgd base flow, assuming no other development.

Upon review of the above data and project plans, Oakland Public Works estimated that the proposed net increase for sewer base flow from buildings east of 29th Avenue is 0.0915 mgd and proposed net increase for sewer base flow from buildings east of 29th Avenue is 0.0537 mgd. Public Works further concluded that these net increases exceed the 20 percent growth rate of both Subbasins. As a result, the project would be required to implement an off-site sewer rehabilitation (infiltration/Inflow reduction) project that would be required to offset the base flow increase. Oakland Public Works has indicated that there are potential rehabilitation projects upstream of the project site. In addition, the potential may exist to extend or enlarge existing onsite sewer mains to serve new buildings on each development site. As proposed, Sites I through IV would have a 6-inch connection to and 8-inch main in East 12th Street (west of 29th Avenue); Sites V and VI would connect to the 8-inch main in East 12th Street (east of 29th Avenue) (Korve, 2007).

The project would be required to comply with the following standard condition regarding implementation of off-site sewer rehabilitation projects:

> **Standard Condition UTIL-2a: Prior to completing the final design for the project's sewer service, confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant.**
>
> **The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the City. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable,**

the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.

Implementation of a rehabilitation project or alterations to existing onsite facilities would result in construction impacts. Those impacts would be considered less than significant with implementation of standard conditions identified throughout this EIR in Section IV.C, Transportation, Circulation, and Parking; IV.D, Air Quality; Section IV.E, Noise; Section IV.F, Hazardous Materials; and Section IV.I, Hydrology and Water Quality. Standard Condition UTIL-2b: The project shall implement the following standard conditions of approval identified elsewhere in this EIR if the City determines the need for new or expanded sanitary sewer facilities that the project sponsor would implement:

- **Standard Condition TRANS-11 (Construction Traffic)**
- **Standard Conditions AIR-1a and AIR-1b (Asbestos Removal and Construction Dust and Emission)**
- **Standard Conditions NOI-1a through NOI-1i (Construction Period Noise)**
- **Standard Conditions HYD-1 and HYD-2 (Water Quality during Construction; Contaminated Groundwater Discharge)**
- **Standard Conditions HAZ-1a through HAZ-1f; HAZ-2a through HAZ-2e; HAZ-3 and HAZ-4 (Hazardous Materials).**

Overall, it is not anticipated, that the proposed project would exceed wastewater treatment requirements of the RWQCB or cause adversely affect the sufficient system-wide conveyance and treatment capacity dedicated to the City of Oakland. Therefore, with implementation of Standard Condition UTIL-2a and the combined measures identified in Standard Condition UTIL-2b to address construction-period impacts, the project would result in a less-than-significant impact on sanitary sewer facilities.

Level of Significance after Implementation of Standard Conditions: Less than Significant.

Stormwater Drainage Facilities

Impact UTIL-3: The project would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

As evaluated in Section IV.I, Hydrology and Water Quality, overall stormwater runoff from the project site is not anticipated to change substantially with the project. This is primarily due to the fact that the project site is currently developed with buildings, paved areas, and vacant lots and contains mostly impervious surfaces. According to the *C.3 Storm Water Quality Control Analysis*

report prepared for the project by Luk and Associates, approximately 99 percent of the project site is currently covered with impervious surface, and the project proposes landscaping and other pervious surface area that would reduce the total impervious surface on the project site to approximately 84 percent (Luk and Associates, 2007) (Also see Impacts HYD-3 and HYD-4). If the stormwater drainage system is found to be inadequate in meeting the drainage requirements of the project, the project sponsor may be required to provide storm drainage improvements and/or pay the required installation fees, pursuant to Standard Condition UTIL-2a, above. The project sponsor would also be required to coordinate with the Alameda County Flood Control and Water District (ACFCWCD) and the Oakland PWA to ensure adequate provisions of storm drain services to all residents and businesses within the project. Also, as discussed in Section IV.I, Hydrology and Water Quality, as part of standard conditions of approval, the project sponsor would be required to implement Standard Condition of Approval HYD-1, which requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of Best Management Practices (BMPs) (see Standard Condition I-1a).

Overall, because the project is not expected to require significant upgrades existing stormwater mains that would serve the project and because the project sponsor would be required to prepare a SWPPP and SWPMP and implement post-construction measures to reduce runoff (Standard Conditions HYD-3a and HYD-3b) and would increase the area of pervious surface on the project site, any potential impacts associated with surface water runoff are considered less than significant.

Mitigation: None Required.

Solid Waste Service

Impact UTIL-4: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would not require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects. Additionally, the project would not impede the ability of the City to meet the waste diversion requirements of the California Integrated Waste Management Act or the Alameda County Waste Reduction and Recycling Initiative or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. (Less than Significant)

Project Construction

Project construction would generate construction waste and debris. Waste generated by total construction of the project is estimated at a total of 3,600 tons (approximately 4.38 pounds per square foot of development) (US EPA, 1998). The construction-generated waste would be removed from the project site and disposed of primarily at the Vasco Road Landfill, which is estimated to have sufficient capacity to serve existing users through approximately 2015 (CIWMB, 2004b). Pursuant to AB 939 and City of Oakland Ordinance No. 12253, the project would prepare and implement a Construction and Demolition Debris Waste Reduction and Recycling Plan (WRRP) to ensure diversion of at least 65 percent of the construction and

demolition debris from each stage of project implementation The project would also adhere to and participate in all other waste reduction and diversion requirements and programs administered by the Alameda County. As such, the project would not prevent the City of Oakland from being able to meet mandated state or local diversion rates.

Project Operations

The amount of solid waste that would be produced by the proposed project was estimated based on wastestream disposal rates provided by the CIWMB and shown in **Table IV.H-2**.

TABLE IV.H-2
ESTIMATED SOLID WASTE GENERATION (TONS PER YEAR)

Development Proposed by Project	Development (Units or Square Feet)	CIWMB Disposal Rate: Tons/Employee-Resident/Year	Estimated No. of Residents or Employees	Estimated Tons of Solid Waste/Year (rounded)
Residential[a]	810 units	0.44 tons per resident[b]	2,130 residents[c]	937.2 tons/year
Commercial	25,950 sf	0.3 tons per employee[d]	135 employees[e]	40.5 tons/year
TOTAL				**977.7 tons/year**

a Assumes a variety of housing types (townhomes and condominiums)
b Based on 1999 estimated disposal rates for California residents
c See Section IV.K, Population, Housing, and Employment
d Using estimate for Retail Trade – General Merchandise
e Based on estimate of 250 square feet per employee plus 15 people employed by the residential buildings.

SOURCE: California Integrated Waste Management Board, 2007

As presented in **Table IV.H-2**, development proposed as part of the project could generate an estimated 980 (rounded) tons per year of solid waste, or an estimated stream of 2.7 tons per day, assuming full-calendar-year operation at the Altamont Landfill. In 2000, the city of Oakland disposed of approximately 423,000 tons at the Altamont Landfill. The additional 980 tons of solid waste per year generated by the project represents an increase of 0.23 percent in Oakland's total. When the potential increase in Oakland's wastestream is compared against the total amount disposed of at the Altamont Landfill, the potential increase further diminishes. In 2000, the landfill received about 1.6 million tons. The potential increase (980 tons) to Oakland's wastestream would therefore represent an increase of approximately 0.06 percent of the total tonnage received at the landfill. The Altamont Landfill currently has adequate permitted capacity to accommodate this increase in solid waste disposal. Neither the total annual solid waste generated estimated to be generated by the project, nor the degree of increase from existing conditions, would be considered a significant level that would potentially exceed landfill capacity or cause landfill capacity to be reached substantially sooner than otherwise expected.

In addition, the project would participate in the City and County's recycling and waste diversion programs. The project would ensure suitable storage locations and containers for recyclable materials in or around the project buildings and public outdoor spaces, and the design, location, and maintenance of recycling collection and storage areas would comply with the City Planning Commission's *Guidelines for the Development and Evaluation of Recycling Collection and Storage Areas*, (Policy No. 100-28). Therefore, the project's contribution to Oakland's overall waste stream in and of itself is not considered significant, and with continued participation and adherence to these programs, the proposed project would not require or result in new or expanded landfill facilities or impede the City's ability to meet mandated waste diversion requirements. As required for all City development projects, the project would be required to comply with the following standard conditions of approval, which the City will incorporate as a condition of approval for the project:

> **Standard Condition UTIL-4a: Prior to issuance of demolition, grading, or building permit The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.**
>
> **Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed project from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.**
>
> **Standard Condition UTIL-4b: The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed project from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.**

Mitigation: None Required.

Energy

Impact UTIL-5: The project would not violate applicable federal, state and local statutes and regulations relating to energy standards; nor would the proposed project result in a determination by the energy provider which serves or may serve the project that it does not

have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects. (Less than Significant)

The proposed project would result in an incremental increase in the demand for gas and electrical power given the increase in development on the project site. Overall, the level of public energy required of the proposed project would not be expected to violate applicable federal, state and local statutes and regulations relating to energy standards or exceed PG&E's service capacity or require new or expanded facilities. The project would be required by the City to comply with all standards of Title 24 of the California Code of Regulations, aimed at the incorporation of energy-conserving design and construction Also, PG&E infrastructure exists on the project site, and any improvements and extensions required to accommodate the project would be determined in consultation with PG&E prior to installation**.** As a result, although the project would increase energy consumption, it would not result in a significant impact related to the provision of energy services.

Mitigation: None Required.

Cumulative Impacts on Utility and Service System

Impact UTIL-6: The increased development resulting from the proposed project, in conjunction with population and density of other foreseeable development in the city, would not result in cumulative impacts on utilities and service systems. (Less than Significant)

Water Supply

The proposed project, in conjunction with reasonably foreseeable future projects, could result in a cumulative increase in demand for water service. However, as discussed in the above analysis, the project would not exceed water supplies available to serve the project, nor cause significant environmental effects due the construction of new or expanded water facilities. Additionally, the increases in demand attributable to other future development would be addressed on a site-by-site basis by EBMUD prior to approval of new development. Additionally, all future projects would be required to comply with City ordinances and polices regarding water supply, as well as water conservation measures, and wherever feasible, participate in water recycling programs established by EBMUD to address effects of severe drought. Development of the project and other future project may involve improvements to existing water utility lines and may result in construction impacts. Construction related impacts are addressed throughout this EIR and would address any construction activities related to water utilities. Overall, the effect of the proposed project on water supply, in combination with other foreseeable projects would be less than significant.

Sanitary Sewer Facilities

The proposed project, in conjunction with reasonably foreseeable future projects, could result in a cumulative increase in sewage generation, resulting in increased demand on EBMUD’s wastewater treatment facility serving the project site. However, it is not anticipated that the

wastewater demands of the project combined with future projects in Oakland would result in the City exceeding its citywide allocation under the Wet Weather Program or East Bay Municipal Utility District's (EBMUD) capacity to serve the project's projected demand in addition to its existing commitments within its service area.

The City would continue to implement its infiltration/inflow correction program intended to reduce the amount of inflow and infiltration, but this would not provide additional capacity beyond that projected for future years, and other foreseeable future projects would be required to comply with the City's programs and ordinances regarding adequate function and capacity of the sanitary sewer system. As previously stated, any construction related effects that may result from future projects' improvements to existing sanitary sewer facilities are addressed by other mitigation measures in this EIR. Overall, the effect of the proposed project on the need for new or expanded wastewater facilities, in combination with other foreseeable projects would be less than significant.

Stormwater Drainage Facilities

As discussed earlier in this section, the project would decrease the amount of existing impervious areas on the project site from 99 percent to 84 percent. Furthermore, no major change in the total annual stormwater discharge from the site into the storm drain system is anticipated, due to the required implementation of stormwater management strategies, including the preparation of a SWPPP and the use of BMP, as well as the proposed reduction of impervious surface on site. Foreseeable future project also would be subject to all regulatory requirements and programs aimed to reduce impacts on the storm drain system citywide, including compliance with the City's stormwater guidelines (see Standard Conditions HYD-1 through HYD-4); thus the proposed project, in conjunction with reasonably foreseeable future projects, would not result in a cumulative increase in stormwater runoff, requiring the need for new or expanded stormwater drainage facilities.

Solid Waste

The proposed project, in conjunction with reasonably foreseeable future projects, could result in a cumulative increase in solid waste and debris generated by project construction and operations. However, comprehensive implementation of City and County waste reduction and diversion requirements and programs by the project and future project would reduce the potential for exceeding existing capacities of existing landfills, which have indicated that adequate capacity currently exists. As a result, the project and future project would not result in new or expanded landfill facilities or impede the City's ability to meet mandated waste diversion requirements, and the impact would be less than significant.

Energy

Despite annual statewide increases in energy consumption, development of the project and other reasonably foreseeable future projects in Oakland, which is mostly already served by gas and electricity infrastructure, and the net increased power demand from these projects relative to the regional service area, would be minimal and not require expanded or new power facilities as a direct result of project development. Further, all future project would be required to comply with

all standards of Title 24 of the California Code of Regulations, (or other similar building codes that would apply to residential and/or commercial developments), therefore, the effect of the proposed project on energy consumption levels, in combination with other foreseeable projects, would be less than significant.

Mitigation: None Required.

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I. Hydrology and Water Quality

This section describes existing storm water drainage conditions, groundwater occurrence, and water quality issues at, and in the vicinity of, the proposed development. Pertinent regulatory information is provided, and potential impacts related to water quality, drainage, and groundwater are identified. Mitigation for potential impacts is provided, as appropriate.

Setting

Climate and Topography

The project site consists of 9.7 acres of industrial and commercial property in the Fruitvale neighborhood of the City of Oakland. The ground surface in and around the project site is relatively flat and slopes gently southwest towards Highway 880. Ground elevations range from approximately 30 to 40 feet above mean sea level (msl).

The climate of Oakland is characterized as Mediterranean with cool, wet winters and dry, hot summers. Temperatures are generally moderate with a comparatively small range of temperatures between the winter low and the summer high. The region's rainy season extends from October to April, with relatively dry conditions for the remainder of the year. Average annual rainfall in the vicinity of the project site is 18 inches. Average temperatures generally range from 42 degrees Fahrenheit in winter months to 70 degrees Fahrenheit in summer months (WRCC, 2005).

Surface Water Hydrology

Regional Drainage

The project site is located in an urbanized portion of the San Antonio Creek watershed. Prior to the California gold rush, San Antonio Creek was part of an extensive network of tidal marshlands along the San Francisco Bay shoreline. In the 1850s, early dredging of the San Antonio Creek to accommodate shipping significantly altered the movement of water and sediment through the marshlands, creating new land where once there was marsh. Over the next 50 years, subsequent dredging and excavation of the channel to improve navigability and accommodate trade and commerce resulted in the transformation of San Antonio Creek into a permanent tidal canal that now separates the cities of Oakland and Alameda and extends from the San Francisco Bay east to San Leandro Bay.

San Antonio Creek is now commonly referred to as the Oakland Estuary or the Oakland Inner Harbor. Tributaries to the San Antonio Creek watershed include Glen Echo Creek, Pleasant Valley Creek, Wildwood Creek, and Indian Gulch Creek. These local creeks generally flow from northeast to southwest, originating in the Oakland foothills as natural streams, passing through developed urban areas via improved channels and the City's formal subterranean storm drain system, and eventually discharging into the San Francisco Bay via the Oakland Estuary. Also included in the San Antonio Creek Watershed is Lake Merritt, a former slough that was dammed in the late 1860s to form a tidal lagoon.

Local Drainage Patterns

The project site lies in a highly urbanized area of east Oakland that served by the City's storm drainage system. The project site is essentially flat and largely covered by impervious surfaces consisting of industrial/commercial warehouses, storage buildings, paved areas, and parking lots. There are no creeks or streams that cross the project site. Storm water runoff from the project site and vicinity originates as overland sheet flow across impervious surfaces and is collected by a curb and gutter system and delivered through drop inlets to the City's subterranean storm drains and culverts, eventually discharging to the Oakland Estuary. The Alameda County Flood Control and Water Conservation District (ACFCWCD) is responsible for the construction, operation and maintenance of major trunk lines and flood control facilities in Oakland, the Oakland Public Works Agency (PWA) is responsible for the maintenance of the local storm drainage system within Oakland's public areas and roads.

Flooding

Flooding is inundation of normally dry land as a result of rise in the level of surface waters or rapid accumulation of stormwater runoff. Flooding can also occur due to tsunamis, seiches, or failure of dams. Tsunamis are waves caused by an underwater earthquake, landslide, or volcanic eruption. A seiche is a rhythmic motion of water in a partially or completely landlocked water body caused by landslides, earthquake-induced ground accelerations, or ground offset. Oakland is not particularly prone to flooding due to tsunamis or seiches, nor does it have large rivers or open coastline that can result in devastating storm-induced flooding. Flooding from tsunamis could potentially affect low-lying areas along San Francisco Bay and the Oakland Estuary, but the mouth of the Golden Gate would dissipate the wave energy and the island of Alameda would shelter inland areas such as the project site. The likelihood of large-scale devastation in Oakland resulting from seiches appears to be minuscule (City of Oakland, 2004a). Furthermore, the project site is not located within a dam inundation area as designated by the Association of Bay Area Governments (ABAG) (ABAG, 1995).

Regional flooding hazards, as evaluated by the Federal Emergency Management Agency (FEMA), are presented in community Flood Insurance Rate Maps (FIRMs) as part of the floodplain mapping program. FEMA FIRMs designate areas where urban flooding could occur during 100-year and 500-year flood events (i.e. storms with a likelihood of occurring every 100 to 500 years). The project site is located in an area designated as Flood Hazard C (areas of minimal flooding) and is not located within a designated 100-year or 500-year flood hazard zone (FEMA, 1982).

Groundwater

The California Department of Water Resources (DWR) delineates state groundwater basins based on geologic and hydrogeologic conditions. According to the DWR, the project site is located within the East Bay Plain Subbasin of the greater Santa Clara Valley Groundwater Basin. The East Bay Subbasin has a surface area of approximately 122 square miles and trends northwest from Hayward to San Pablo Bay. The primary groundwater-bearing formation in the subbasin is

comprised of unconsolidated sediments of Quaternary age. Some portions of the subbasin have been identified as areas of major groundwater contamination associated with fuels and solvents. However, contamination in these areas is considered to be restricted to the upper 50 feet of the subsurface (DWR, 2003).

The regional direction of groundwater flow is generally southwestward toward San Francisco Bay. Shallow groundwater beneath the project site is hydraulically connected to the Bay; its flow direction is highly variable due to its perched nature within Bay Muds, and tidal fluctuation. Approximate depth to groundwater in the project site vicinity is 10 feet (Mission Geoscience, Inc., 1999).

Regulatory Framework

Several federal, state, and local agencies regulate activities that could affect hydrological and water quality features in the project area. This section describes the regulatory framework that would apply to the proposed project.

Federal Laws and Regulations

Clean Water Act (CWA)

The CWA was enacted in Congress in 1972 and amended several times since inception. It is the primary federal law regulating water quality in the U.S. and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribes the basic federal laws for regulating discharges of pollutants and sets minimum water quality standards for all surface waters in the U.S. At the federal level, the CWA is administered by the U.S. Environmental Protection Agency (EPA). At the state and regional levels, the CWA is administered and enforced by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs).

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses. Each state must submit an updated list, called the 303(d) List of Impaired Waterbodies, to the US EPA by April of each even numbered year. In addition to identifying the waterbodies that are not supporting beneficial uses, the List also identifies the pollutant or stressor causing impairment, and establishes a schedule for developing a control plan to address the impairment. Two segments of the Oakland Inner Harbor are listed on the Section 303(d) List of Impaired Waterbodies. The Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site) segment is listed due to chlordane, chlorpyrifos, copper, dichlorodiphenyltrichloroethane (DDT), diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, lead, mercury, mirex, Polycyclic Aromatic Hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), ppDDE. Selenium, tributyltin, and zinc. The Oakland Inner Harbor (Fruitvale Site) segment is listed due to chlordane, DDT, diazinon, dieldrin, dioxin compound, exotic species, furan compounds, mercury, PCBs, and selenium. Potential sources of

these contaminants include industrial and municipal point sources, resource extraction, atmospheric deposition, and natural sources (USEPA, 2003).

Placement of a waterbody on the 303(d) List acts as the trigger for developing a pollution control plan, called a Total Maximum Daily Load (TMDL), for each water body and associated pollutant/stressor on the list. The TMDL serves as the means to attain and maintain water quality standards for the impaired water body. During each 303(d) listing cycle the water bodies on the list are prioritized and a schedule is established for completing the TMDLs. Both segments of the Inner Oakland Harbor have been given a low priority for TMDL development and thus, a TMDL has not yet been prepared (USEPA, 2003).

State and Regional Water Quality Control Boards

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act establishes the SWRCB and the RWQCBs as the principal state agencies having primary responsibility in coordinating and controlling water quality in California. The Porter-Cologne Act establishes the responsibility of the RWQCBs for adopting, implementing, and enforcing water quality control plans (i.e. Basin Plans), which set forth the state's water quality standards (i.e. beneficial uses of surface waters and groundwaters) and the objectives or criteria necessary to protect those beneficial uses. The project site lies within the jurisdiction of the San Francisco Bay RWQCB. The SF Bay RWQCB is responsible for development, adoption, and implementation of the Basin Plan for the SF Bay region. National Pollution Discharge Elimination System (NPDES) permit requirements must be consistent with the Basin Plans.

San Francisco Bay Basin Plan

Beneficial Uses of Surface Water

The San Francisco Bay RWQCB is responsible for the development, adoption, and implementation of the San Francisco Bay Water Quality Control Plan (Basin Plan). The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay region. The Basin Plan identifies beneficial uses of surface waters and groundwater within its region, and specifies water quality objectives to maintain the continued beneficial uses of these waters.

Although the beneficial uses of the Oakland Inner Harbor have not been specified, under the "tributary rule", which provides that water quality standards for specific waterbodies apply upstream to tributaries for which no site-specific standards have been adopted, the beneficial uses of the Lower San Francisco Bay can be applied to the Oakland Inner Harbor. Thus, the beneficial uses of the Oakland Inner Harbor include: ocean, commercial, and sport fishing (COMM); estuarine habitat (EST); industrial service supply (IND); fish migration (MIGR); navigation (NAV); preservation of rare and endangered species (RARE); water contact recreation (REC-1);

noncontact water recreation (REC-2); shell fish harvesting (SHELL); and wildlife habitat (WILD) (RWQCB, 1995).

Beneficial uses of the East Bay Plain Groundwater Subbasin include municipal and domestic water supply (MUN); industrial process water supply (PROC); industrial service water supply (IND); and agricultural water supply (AGR) (RWQCB, 1995).

National Pollutant Discharge Elimination System (NPDES) Program

In 1987, amendments to the CWA added section 402(p), which established a framework for regulating non point source (NPS) storm water discharges under the National Pollutant Discharge Elimination System (NPDES). In California, the NPDES General Construction Activities Stormwater Program is administered by the California RWQCBs. Phase I of the NPDES program regulates storm water discharges from major industrial facilities, large and medium-sized municipal separate storm sewer systems (those serving more than 100,000 persons), and construction sites that disturb five or more acres of land. Pursuant to the NPDES Phase II Final Rule in December 1999, discharges of storm water associated with construction activities that result in the disturbance of equal to or greater than one acre of land must apply for coverage under the statewide General Construction Activities Stormwater Permit (General Permit). Construction activity includes, but is not limited to clearing, grading, demolition, excavation, construction of new structures, and reconstruction of existing facilities involving removal and replacement that results in soil disturbance.

Regarding NPDES municipal stormwater requirements, as a member of the Alameda Countywide Clean Water Program, the City of Oakland is co-permittee of the ACCWP's NPDES Municipal Stormwater Permit (see discussion below). With respect to the NPDES General Construction Activities Permit, the project applicant is required to submit a Notice of Intent (NOI) with the State Water Resource Control Board's (SWRCB) Division of Water Quality. The NOI includes general information on the types of construction activities that will occur on the site. The applicant will also be required to submit a site-specific plan called the Stormwater Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP will include a description of Best Management Practices (BMPs) to minimize the discharge of pollutants from the site during construction. It is the responsibility of the property owner to obtain coverage under the permit prior to site construction.

Alameda County Regulations

Alameda Countywide Clean Water Program (ACCWP)

The ACCWP is a group of 17 participating agencies within Alameda County, including City of Oakland, that cooperatively comply with RWQCB requirements to prevent stormwater pollution and protect and restore creek and wetland habitat. The ACCWP maintains compliance with the NPDES permit requirements by requiring: local agencies to address storm water quality during development review; the utilization of water quality BMPs during project construction; and the reduction of long-term water quality impacts using site design and source control measures.

In 2001, the ACCWP prepared the *Stormwater Quality Management Plan* (SQMP), which is valid through June 2008 (ACCWP, 2001). The SQMP describes the ACCWP's approach to reducing stormwater pollution. In conjunction with the stormwater discharge permit issued by the RWQCB (discussed below), the SQMP is designed to enable the ACCWP member agencies to meet CWA requirements. The SQMP provides a framework for protection and restoration of creeks and watersheds in Alameda County in part through effective and efficient implementation of appropriate control measures for pollutants. The SQMP addresses the following major program areas: regulatory compliance, focused watershed management, public information/participation, municipal maintenance activities, new development and construction controls, illicit discharge controls, industrial and commercial discharge controls, monitoring and special studies, control of specific pollutants of concern, and performance standards (ACCWP, 2001).

The NPDES C.3 Provisions, effective as of August 15, 2006, include new requirements for development and redevelopment projects. C.3 Provisions require that projects that create or replace 10,000 square feet or more of impervious surface incorporate the following stormwater controls:

- Post-construction storm water treatment control measures (e.g. vegetated swales, pervious pavement, detention basins) designed to treat a specified flow rate proportional to changes between pre- and post-project impervious surfaces;

- Source control features such as enclosed trash areas and designated wash areas designed to keep pollution away from stormwater;

- Site design features to increase pervious surface areas by utilizing landscaped areas in between impervious areas as a storm drainage treatment feature; and

- In cases where changes in the amount and timing of runoff would increase stormwater discharge rates an/or duration and increase the potential for other adverse impacts to beneficial uses, the C.3 Provisions also require preparation of a hydrograph modification management plan that includes measures to control the quantity and duration of runoff.

As specified in ACCWP's NPDES permit (Order R2-2003-0021), the proposed project falls under the "significant redevelopment projects" category of Group 1 Projects. A significant redevelopment project is defined as a project on a previously developed site that results in addition or replacement of total of 43,560 square feet (one acre) or more of impervious surface. The permit requires that in the case of a significant redevelopment project that would result in an increase of, or replacement of, more than 50 percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project be included in the treatment measure design. (ACCWP, 2001).

City of Oakland

City of Oakland Stormwater Ordinance

The City's stormwater protection ordinance is contained in Chapter 13.16 of the Oakland Municipal Code. The ordinance prohibits activities that would result in the discharge of pollutants to Oakland's waterways or damaging of the creeks, creek functions, or habitat. The ordinance aims to reduce pollutants in stormwater by regulating grading, excavation, and filling activities. The ordinance requires that all construction projects develop a site map, grading plan, and drainage plan prior to approval. The City of Oakland's stormwater ordinance was revised in 1997 to provide stronger provisions to safeguard creeks. The ordinance, now called the "Creek Protection, Stormwater Management, and Discharge Control Ordinance" includes permitting guidelines for development and construction projects taking place on creekside property. No creeks or waterbodies are located within or adjacent to the project site. Thus, the proposed project is not subject to the requirements of the ordinance pertaining to creekside property.

City of Oakland Grading Ordinance

The Grading Ordinance requires a permit for grading activities on private or public property for projects that exceed certain criteria, such as amount of proposed excavation, area of lane disturbance, degree of site slope, depth of excavation, etc. During construction, the proposed project is expected to result in a land disturbance greater than one acre result in a volume of excavation and/or fill of 50 cubic yards or greater. Thus, the project applicant would be required to obtain a grading permit from the City of Oakland Director of Planning and Building prior to earthwork.

Impacts and Mitigation Measures

Significance Criteria

A hydrology or water quality impact would be considered significant if it would meet any of the following criteria:

Water Quality

1. The project would have a significant hydrology or water quality impact if it would:

2. Violate any water quality standards or waste discharge requirements;

3. Result in substantial erosion or siltation onsite or offsite that would affect the quality of receiving waters;

4. Create or contribute substantial runoff that would be an additional source of polluted runoff;

5. Otherwise substantially degrade water quality;

6. Substantially alter the existing drainage pattern of the site or area (including through the alteration of the course or by increasing the rate or amount of flow of a creek, river, or stream) in a manner that would result in substantial erosion, siltation, or flooding, both on or off the site; or

7. Fundamentally conflict with elements of the City of Oakland creek protection ordinance (Oakland Municipal Code Chapter 13.16). Although there are no quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water or the creek's capacity; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) substantially endangering public or private property or threatening public health or safety.

Groundwater Resources

The project would have a significant hydrology or water quality impact if it would:

1. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or proposed uses for which permits have been granted).

Flooding

The project would have a significant hydrology or water quality impact if it would:

1. Result in substantial flooding onsite or offsite;

2. Create or contribute substantial runoff that would exceed the capacity of existing or planned stormwater drainage systems;

3. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows;

4. Place within a 100-year flood hazard area structures that would impede or redirect flood flows;

5. Expose people or structures to a substantial risk of loss, injury, or death involving flooding; or

6. Result in inundation by seiche, tsunami, or mudflow.

Approach to the Analysis

This impact analysis focused on potential effects on water quality and drainage patterns associated with implementation of the proposed project. The evaluation was made in light of project plans, current conditions at the project site, applicable regulations and guidelines, and previous environmental site assessments.

Water Quality Impacts

Impact HYD-1: Construction-related erosion during project development could result in adverse impacts to the water quality of the Oakland Inner Harbor and San Francisco Bay (Potentially Significant).

Earthwork activities that would occur as part of construction activities on the 9.7-acre project site include the demolition of the existing structures and pavement, the stripping of surface vegetation, partial excavation of site soils, and possibly the placement of imported engineered soils on the project site. During construction, existing impervious surfaces and established ground cover that serve to stabilize site soils would be removed from the project site, potentially resulting in increased erosion from the project site and increased sediment load in receiving waterbodies, such as the Oakland Estuary and San Francisco Bay.

Construction activities can also result in the accidental release of hazardous waste products such as adhesives, solvents, paints, and drilling and petroleum lubricants that, if not managed appropriately, can adhere to soil particles, become mobilized by rain or runoff, and degrade water quality. Hazardous waste products used during construction could also infiltrate into groundwater and degrade the quality of potential groundwater drinking sources.

To reduced the potentially significant water quality impacts associated with construction related activities for the project, the project would be required to comply wit the following City's standard conditions of approval regarding grading, drainage, erosion and sedimentation control, and NPDES Permit requirements:

> **Standard Condition HYD-1:** ***Construction Stormwater Pollution Prevention Plan (SWPPP)*** **- The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP). At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue though the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.**
>
> •

Level of Significance after Implementation of Standard Condition: Less than Significant.

Construction Impacts on Groundwater Resources

Impact HYD-2: Project excavation activities would not deplete groundwater supplies nor substantially interfere with groundwater recharge or cause contaminated groundwater discharge to contaminate surface water. (Potentially Significant)

The majority of the project site is currently covered in impervious surfaces. Pre- and post-project impervious surface areas on the project site are anticipated to be similar, if not less, than current conditions and thus, would not result in a decrease in groundwater recharge. Water supplies for the proposed project would be provided by the East Bay Municipal Utilities District (EBMUD). The proposed project would not deplete local groundwater supplies. There are no groundwater supply wells at the project site. Thus, no impacts to groundwater levels or recharge would result.

Excavation and construction of structures with subsurface foundations or open trenches, such as building foundations or pipelines, can often intercept shallow groundwater and require dewatering (removal of groundwater by pumping) to lower groundwater levels and drying the area for construction. Depending on the nature of construction activities and given the shallow subsurface water levels, groundwater could flow into excavations that extend below the groundwater table. Groundwater is located at approximately 10 feet below ground surface in the project area. Depths of excavation would vary with individual project components and localized site conditions. The SWPPP for construction would include measures to prevent contamination of groundwater that could occur from chemicals associated with construction (e.g., fuels, solvents, etc.)

In the event subsurface groundwater is encountered, common practices employed to facilitate construction include either dewatering the excavation or shoring the sides of the excavation to reduce groundwater inflow. If dewatering methods are used, groundwater would be pumped out of the excavation to the surface and then discharged, typically to either the storm drain or sanitary sewer. Water extracted during dewatering could contain chemical contaminants (either from pre-existing sources or from equipment), or could become sediment-laden from construction activities. If dewatering is required, the project sponsor would comply with the groundwater discharge requirements and regulations of the City and the RWQCB to prevent any discharge of contaminated dewatered groundwater into the sanitary sewer or storm drain system and that would contaminate Oakland Estuary and/or San Francisco Bay. Groundwater generated during permanent dewatering would be discharged to the sanitary sewer or storm drain system with authorization of and required permits from EBMUD, or the City of Oakland Public Works Department and RWQCB. The following standard condition would further ensure that the proper discharge permits are obtained:

> **Standard Condition HYD-2: The City of Oakland shall require the Project Sponsor to obtain a discharge permit from EBMUD or the City of Oakland Public Works Agency and RWQCB prior to discharge of groundwater or stormwater generated from dewatering.**

Level of Significance after Implementation of Standard Condition: Less than Significant.

Post-Construction Water Quality

Impact HYD-3: Implementation of the proposed project could result in development and uses that contribute to Non-Point Source (NPS) pollution levels in the Oakland Estuary and San Francisco Bay. (Potentially Significant)

Non-point source (NPS) pollutants are washed by rainwater from rooftops, landscape areas, and streets and parking areas into the drainage network. Pollutant concentrations in site runoff are dependent on a number of factors including: (1) land use conditions; (2) site drainage conditions; (3) intensity and duration of rainfall; (4) the climatic conditions preceding the rainfall event; and (5) implementation of water quality BMPs. Due to the variability of urban runoff characteristics, it is difficult to estimate pollutant loads for NPS pollutants. However, pollutants from the proposed project would be consistent with residential areas, commercial areas, landscape areas, and parking lots. Elevated levels of oil and grease, petroleum hydrocarbons, metals, and nutrients in site runoff are likely. Without proper mitigation, development of the project site could contribute to NPS pollutants in the Oakland Inner Harbor and San Francisco Bay and adversely affect water quality.

As discussed above, under the new NPDES C.3 Provisions, the proposed project would be required to consider site design features that reduce impervious areas and utilize landscape areas in between impervious areas as a storm drainage treatment feature; install source control features such as enclosed trash areas and covered car was areas; and implement permanent treatment control features such as bio-retention areas, vegetation swales, and/or infiltration trenches. Also, if deemed appropriate by the City of Oakland Public Works Department, the project applicant may be required to utilize to retain, detain, or infiltrate runoff to match pre-project flows and durations.

According to the *C.3 Storm Water Quality Control Analysis* report prepared for the project by Luk and Associates, approximately 99 percent of the project site is currently covered with impervious surface, and the project proposes landscaping and other pervious surface area that would reduce the total impervious surface on the project site to approximately 84 percent (Luk and Associates, 2007)

The project sponsor will be required to comply with the following standard conditions of approval which is consistent with the C.3 provisions of the NPDES permit and would reduced the potentially significant impact that could result regarding NPS pollutants:.

> **Standard Condition HYD-3a: *Post-Construction Stormwater Pollution Management Plan (SWPMP)*- The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with**

the application for a building permit (or other construction-related permit) a completed Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City, to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable. The post-construction stormwater pollution management plan shall include and identify the following:

- **All proposed impervious surface on the site;**
- **Anticipated directional flows of on-site stormwater runoff;**
- **Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces;**
- **Source control measures to limit the potential for stormwater pollution; and**
- **Stormwater treatment measures to remove pollutants from stormwater runoff.**

The following additional information shall be submitted with the post-construction stormwater pollution management plan:

- **Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and**
- **Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures.**

All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater pollution management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

Prior to final permit inspection

The applicant shall implement the approved stormwater pollution management plan.

Standard Condition HYD-3b: ***Maintenance Agreement for Stormwater Treatment Measures*** **- Prior to final zoning inspection, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:**

- **The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and**

- **Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.**

Level of Significance after Implementation of Standard Conditions: Less than Significant.

Post-Construction Runoff

Impact HYD-4: Implementation of the proposed project could alter drainage patterns on the project site, potentially having adverse effects on the volume and/or timing of peak runoff in the municipal storm drain system. (Potentially Significant)

Surface water runoff volumes and rates generated from undeveloped, unpaved areas can increase significantly when the site is paved, the impervious surface area increased, and the capability of surface water infiltration is reduced or eliminated. However, the majority of the project site is currently overlain by impervious surfaces associated with existing buildings, paved areas, and parking lots. Therefore, the proposed project is not anticipated to substantially impervious surface area nor result in associated increases in surface water runoff rates.

Although a drainage plan has not been prepared for the project site, the project drainage plan would be required to comply with C.3 Provisions, as applicable, and the City of Oakland Storm Drainage Design Guidelines. The impact associated with changes in post-construction runoff would be considered potentially significant, and implementation and compliance with **Standard Conditions HYD-3a and HYD-3b** (see above) would further reduce the potential effects of the project.

Significance After Implementation of Standard Conditions: Less than Significant.

Flooding

Impact HYD-5: The project would not result in flooding due to its proximity to a 100-year flood hazard area, or expose people or structures to other substantial risk related to flooding, seiche, tsunami, or mudflow. (Less than Significant)

The project site is located in an area designated as Flood Hazard Area C (areas of minimal flooding) and is not within the 100-year or 500-year floodplain (FEMA, 1982). The likelihood of flooding in the project area from tsunamis, seiches, or mudflows is negligible in inland areas such as the project site. In addition, the likelihood of large-scale devastation in Oakland resulting from seiches appears to be minuscule (City of Oakland, 2004a). Therefore, the project would not expose people or structures to the risk of loss due to flooding.

Mitigation: None Required.

Cumulative Impacts

Cumulative Impacts on Hydrology and Water Quality Conditions

Impact HYD-6: The increased construction activity and new development resulting from the project, in conjunction with other foreseeable development in the city, would not result in cumulatively considerable impacts on hydrology and water quality conditions. (Less than Significant)

Assuming concurrent implementation of the project with other reasonably foreseeable future projects in the vicinity, adverse cumulative effects on hydrology and water quality could include construction impacts related to increases in stormwater runoff and pollutant loading to the Oakland Estuary and San Francisco Bay. The project and other future projects in the city would be required to comply with drainage and grading ordinances intended to control runoff and regulate water quality at each development site. Furthermore, the city is generally built out with very few and relatively small undeveloped parcels that would convert from pervious to impervious surfaces. New projects would be required to demonstrate that stormwater volumes could be managed by downstream conveyance facilities and would not induce flooding. New development projects in Oakland would also be required to comply with City of Oakland uniformly-applied conditions of approval and ordinances regarding water quality, creek protection, and ACCWP NPDES permitting requirements. Therefore, the effect of the project on water quality and hydrology, in combination with other foreseeable projects, would be less than significant.

Mitigation: None Required.

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J. Geology, Soils, and Seismicity

This section describes geologic and seismic conditions in the project vicinity and evaluates the potential for the proposed project to result in significant impacts related to exposing people or structures to unfavorable geologic hazards, soils, and/or seismic conditions. Potential impacts are discussed and evaluated, appropriate standard conditions of approval are identified, and mitigation measures are prescribed, as necessary.

Setting

Topography

The city of Oakland includes the mountainous uplands of the Oakland-Berkeley Hills and an alluvial plain that slopes gently westward away from these hills to meet the flat marginal baylands of the San Francisco Bay. The project area is located on the alluvial plain, approximately ½ mile north of the Oakland Estuary. The ground surface in and around the project site is relatively flat and slopes gently southwest towards Highway 880. Ground elevations range from approximately 30 to 40 feet above mean sea level (msl).

Geology

The project area lies within the geologic region of California referred to as the Coast Ranges geomorphic province.[1] The natural region of the Coast Ranges is between the Pacific Ocean and the Great Valley and stretches from the Oregon border to the Santa Ynez River near Santa Barbara. Discontinuous northwest-trending mountain ranges, ridges, and intervening valleys characterize this province. Much of the Coast Range province is composed of marine sedimentary and volcanic rocks that form the Franciscan Assemblage. The Franciscan Assemblage in this region of California represents some of the oldest rocks in the region, and consists primarily of greenstone (altered volcanic rocks), basalt, chert (ancient silica-rich ocean deposits), and sandstone that originated as ancient sea floor sediments.

The San Francisco Bay is located in a broad depression in the Franciscan bedrock resulting from an east-west expansion between the San Andreas and the Hayward fault systems. The bedrock surface can be found at elevations of 200 to 2,000 feet below msl across the Bay Area. Sedimentary deposits overlie the Franciscan bedrock that originated from millions of years of erosion, deposition, and changes in sea level. Geologists categorize these sedimentary deposits into geologic formations based on the period of deposition and material type, as described below for the San Francisco Bay region.

- The Alameda Formation is the deepest and oldest of these sedimentary deposits and consists of a mixture of clay, silt, sand, gravel, and some shells with predominantly silt and clay sediments surrounding discontinuous layers of sand and gravel;

[1] A geomorphic province is an area that possesses similar bedrock, structure, history, and age. California has 11 geomorphic provinces.

- Overlying the Alameda Formation is the San Antonio Formation which consists of sandy clays, gravelly clays, clayey sands and gravels with interbedded silty clay deposits.

- Younger alluvial deposits once referred to as the Temescal Formation are deposited on top of the San Antonio and consist of sandy clays, clayey sands, sands and gravels. The source material for these alluvial deposits comes from the Berkeley Hills.

The underlying geology of the project site is mapped as alluvial fan and fluvial deposits of Holocene times. These deposits are characterized as unconsolidated, plastic, moderately to poorly-sorted silt and clay rich in organic material that formed from streams draining the nearby hillsides and standing floodwaters from the Bay (USGS, 2000).

Site Soils

According to the Soil Survey of Alameda County, Western Part, site soils belong to the Urban land-Clear Lake complex. This complex is comprised primarily of approximately 55 percent Urban land and 35 percent Clear Lake clay. Urban-land Clear Lake complex is characterized as very deep and poorly drained soils having no hazard of erosion, high shrink-swell potential, and high potential for differential settlement. The Urban land soil mapping unit occurs in areas where the soil material has been altered or mixed during urban development and consists of soils that are covered by structures and other development. The Clear Lake soil unit consists of clay and silty clay formed in alluvium that derived mainly from sedimentary rock (USDA, 1981).

Seismicity

The San Francisco Bay Area region contains both active and potentially active faults and is considered a region of high seismic activity (**Figure IV.F-1**).[2] The 1997 Uniform Building Code locates the entire Bay Area within Seismic Risk Zone 4. The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities has evaluated the probability of one or more earthquakes of Richter magnitude 6.7 or higher occurring in the San Francisco Bay Area within the next 30 years. The result of the evaluation indicated a 62 percent likelihood that such an earthquake event will occur in the Bay Area between 2003 and 2032 (USGS, 2003). The magnitude (M) is a measure of the energy released in an earthquake. The estimated magnitudes, described as moment magnitudes (Mw) represent *characteristic* earthquakes on particular faults (**Table IV.J-1**).[3] Intensity is a measure of the ground shaking effects at a particular location. However, ground movement during an earthquake can vary depending on the overall magnitude,

[2] An "active" fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). A "potentially active" fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. "Sufficiently active" is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

[3] Moment magnitude is related to the physical size of a fault rupture and movement across a fault. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997b). The concept of "characteristic" earthquake means that we can anticipate, with reasonable certainty, the actual earthquake that can occur on a fault.

TABLE IV.J-1
ACTIVE FAULTS IN THE PROJECT SITE VICINITY

Fault	Distance and Direction from Project Area	Recency of Movement	Fault Classification[a]	Historical Seismicity[b]	Maximum Moment Magnitude Earthquake (Mw)[c]
Hayward	3 miles east	Historic (1836; 1868 ruptures) Holocene	Active	M6.8, 1868 Many <M4.5	7.1
Calaveras	16 miles east	Historic (1861 rupture) Holocene	Active	M5.6–M6.4, 1861 M4–M4.5 swarms 1970, 1990	6.8
San Andreas	18 miles west	Historic (1906; 1989 ruptures) Holocene	Active	M7.1, 1989 M8.25, 1906 M7.0, 1838 Many <M6	7.9
Marsh Creek - Greenville	29 miles east	Historic (1980 rupture) Holocene	Active	M5.6 1980	6.9
Concord - Green Valley	22 miles northeast	Historic (1955) Holocene	Active	Historic active creep	6.9
Rodgers Creek	28 miles north	Historic Holocene	Active	M6.7, 1898 M5.6, 5.7, 1969	7.0

[a] See Footnote 4.
[b] Richter magnitude (M) and year for recent and/or large events. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave.
[c] Moment magnitude (Mw) is related to the physical size of a fault rupture and movement across a fault. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997). The Maximum Moment Magnitude Earthquake, derived from the joint CDMG/USGS Probabilistic Seismic Hazard Assessment for the State of California, 1996. (USGS, 1996).

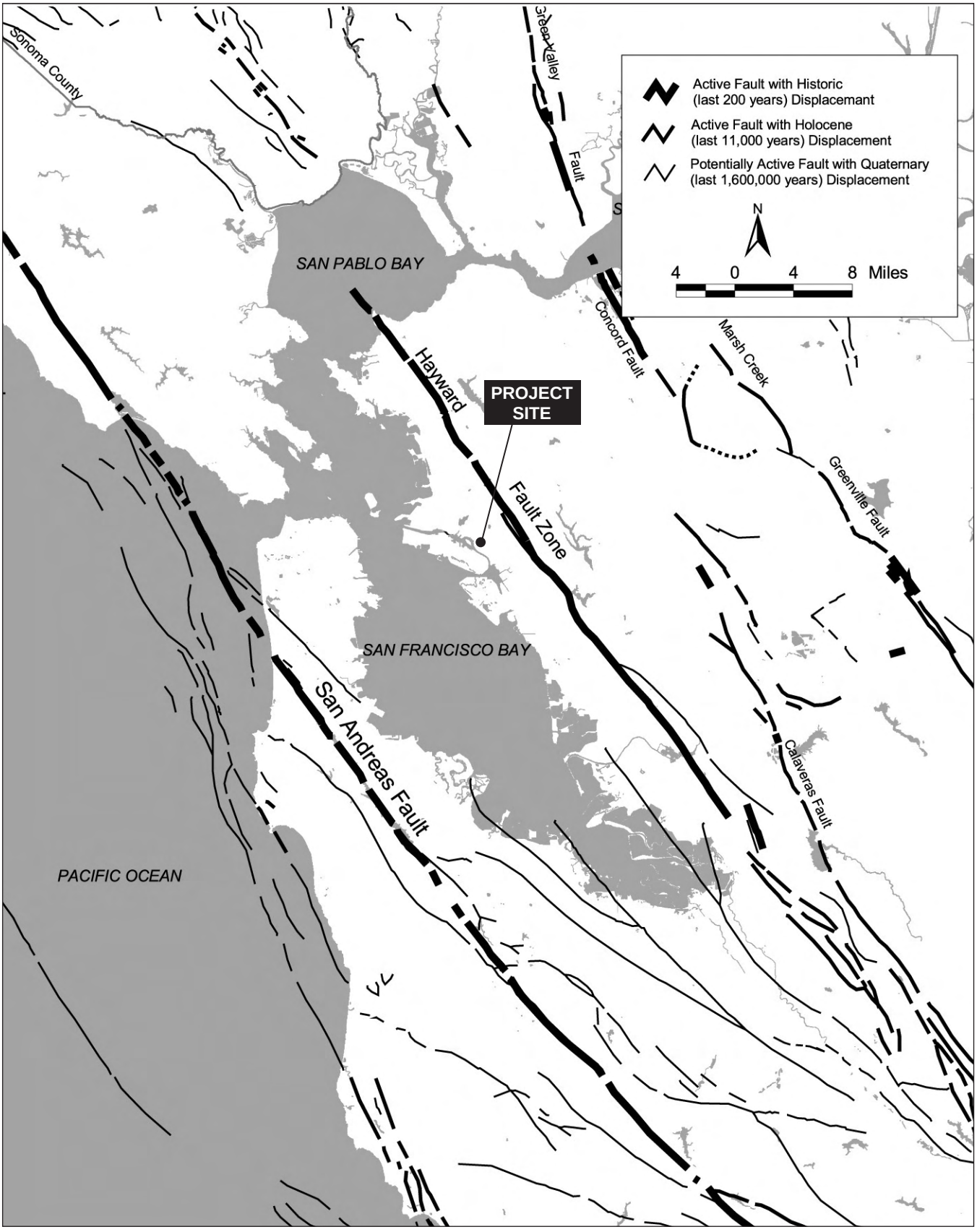
SOURCES: Hart, 1997; Jennings, 1994; Peterson et al, 1996.

distance to the fault, focus of earthquake energy, and type of geologic material. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. The Modified Mercalli (MM) intensity scale (**Table IV.J-2**) is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total), and intensities ranging from IV to X could cause moderate to significant structural damage.[4] For comparison, the 1906 San Francisco earthquake (Mw 7.9) produced strong (VII) shaking intensities, while the 1989 Loma Prieta earthquake, with an Mw of 6.9 produced moderate (VI) shaking intensities in the project area. (ABAG, 2005a,b).

Regional Faults

The two main earthquake faults in the region are the San Andreas Fault Zone on the San Francisco Peninsula and the Hayward Fault Zone that extends along the east bay plain. These two faults are within the San Andreas Fault System, which marks the boundary between two

[4] The damage level represents the estimated overall level of damage that will occur for various MM intensity levels. The damage, however, will not be uniform. Some buildings will experience substantially more damage than this overall level, and others will experience substantially less damage. Not all buildings perform identically in an earthquake. The age, material, type, method of construction, size, and shape of a building all affect its performance.



Gateway Community Development Project . 204358

SOURCES: California Department of Conservation,
Division of Mines and Geology (After Jennings, 1994)

Figure IV.J-1
Regional Fault Map

TABLE IV.J-2
MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration
I	Not felt except by a very few persons under especially favorable circumstances.	< 0.0017 g[a]
II	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.014 g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly, vibration similar to a passing truck. Duration estimated.	< 0.014 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.	0.014–0.04 g
V	Felt by nearly everyone, many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.04–0.09 g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; and fallen plaster or damaged chimneys. Damage slight.	0.09–0.18 g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.	0.18–0.34 g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.	0.34–0.65 g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65–1.24 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 1.24 g
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 1.24 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 1.24 g

[a] g (gravity) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

SOURCE: California Geological Survey, Note 32 (CDMG, 1997), (CGS, 2003).

continental plates – the Pacific Plate to the west and the North American Plate to the east. This fault system includes many active fault zones in northern and southern California. Other principal Bay Area faults capable of producing significant ground shaking in the project area are listed on **Table IV.J-1** and include the Calaveras, Concord–Green Valley, Marsh Creek–Greenville, and Rodgers Creek. These are also strike-slip faults that are part of the San Andreas Fault System.

Most of these faults have produced historic earthquakes of varying magnitude, but the greatest threat to producing significant earthquakes is the San Andreas, the Hayward, and the Calaveras faults.

San Andreas Fault Zone

The San Andreas Fault Zone is the largest in the state, extending from the Salton Sea near the border with Mexico, to north of Point Arena where the fault trace extends into the Pacific Ocean. The main trace of the San Andreas fault through the Bay Area trends northwest through the Santa Cruz Mountains and the eastern side of the San Francisco Peninsula.

As the principle boundary between the Pacific plate and the North American plate, the San Andreas is often a highly visible topographic feature, such as the area between Pacifica and San Mateo, where Crystal Springs Reservoir and San Andreas Lake clearly mark the rupture zone.[5]

The San Andreas Fault Zone was the source of the two major seismic events in recent history that affected the San Francisco Bay region. The 1906 San Francisco earthquake was estimated at M 7.9 and resulted in approximately 170 miles of surface fault rupture. Horizontal displacement along the fault approached 17 feet near the epicenter. The more recent 1989 Loma Prieta earthquake, with a moment magnitude of M 7.1, resulted in widespread damage throughout the Bay Area. The USGS Working Group on California Earthquake Probabilities estimated there is a 21 percent chance of the San Andreas fault experiencing an earthquake of M 6.7 or greater in the next 30 years (USGS, 2003).

Hayward Fault Zone

The Hayward Fault Zone is part of the San Andreas Fault System and trends to the northwest along the eastern San Francisco Bay, extending from San Pablo Bay in Richmond, 60 miles south to San Jose. In San Jose, the Hayward fault converges with the Calaveras fault, a similar type fault that extends north to Suisun Bay. The Hayward Fault is the boundary between two distinctively different geologic formations of different age and origin. The hills to the east of the fault may be 10 million years old, while the flatlands to the west of the fault are probably less than 15,000 years old. The project area is approximately 3 miles west of the active Hayward Fault Zone and 18 miles east of the San Andreas Fault Zone (**Figure IV.F-1**). The Hayward fault is designated by the Alquist-Priolo Earthquake Fault Zoning Act as an active fault.

The Hayward fault exhibits strike-slip movement, which is the horizontal or lateral movement along fault. Expressions of fault movement along the Hayward fault can be seen in deformed curbs, cracks in pavement, offset walls and rails, and sag ponds.

[5] Strike-Slip fault refers to the component of movement or slip on a fault that occurs laterally in the direction that the fault trends.

Historically, the Hayward fault generated one sizable earthquake in 1868 and possibly another in 1836.[6] The 1868, a Richter magnitude 7 earthquake on the southern segment of the Hayward Fault ruptured the ground for a distance of about 30 miles. Recent analysis of geodetic data indicates surface fault rupture may have extended as far north as the city of Berkeley. Lateral ground surface displacement during these events was at least 3 feet.

A characteristic feature of the Hayward fault is its well-expressed and relatively consistent fault creep. Although large earthquakes on the Hayward fault have been infrequent since 1868, slow fault creep has continued to occur and has caused measurable offset. Fault creep on the East Bay segment of the Hayward fault is estimated at 9 millimeters per year (mm/yr) (Peterson, et al., 1996). Although the fault creeps at a higher rate over time, the occurrence of large historical ruptures indicates that the fault is locked at depth and that energy accumulates steadily across the fault, which results in episodic earthquakes. A large earthquake could occur on the Hayward fault with an estimated magnitude of about Mw 7.1 (**Table IV.J-1**).

Geologic Hazards

Expansive Soils

Expansive soils possess a "shrink-swell" behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. According to the Soil Survey of Alameda County, Western Part, site soils are characterized by a high shrink-swell potential (USDA, 1981).

Soil Erosion

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind and underground water. In general, soils with a high percentage of fine sand and silt are the most erodible. As the clay and organic content of a soil increases, the erodibility of the soil tends to decrease. Excessive soil erosion can eventually lead to damage of building foundations and roadways. The majority of the project would be constructed on existing developed areas that are not undergoing active erosion. Thus, the potential for soil erosion at the project site will be greatest during project construction when existing pavement, structures, and vegetative cover which acts to stabilize the soil would be removed from the development area. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, or asphalt.

Differential Settlement

Settlement is the depression of the bearing soil when a load, such as that of a building or new fill material, is placed upon it. Soils tend to settle at different rates and by varying amounts depending on the load weight or change in properties over an area, which is referred to as

[6] Prior to the early 1990s, it was thought that a Richter magnitude 7 earthquake occurred on the northern section of the Hayward Fault in 1836. However, a study of historical documents by the California Geological Survey concluded that the 1836 earthquake was not on the Hayward Fault (Toppozada et al., 1998).

differential settlement. Differential settlement of the loose soils generally occurs slowly, but over time can amount to more than most structures can tolerate. If not properly engineered, loose, soft, soils comprised of sand, silt, and clay have the potential to settle after a building or other load is placed on the surface. Differential settlement can damage buildings and their foundations, roads and rail lines, and result in breakage of underground pipes. According to the Soil Survey of Alameda County, Western Part, site soils have a high potential for differential settlement (USDA, 1981).

Seismic Hazards

Surface Fault Rupture

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Ground rupture is considered more likely along active faults, which are referenced in **Table IV.J-1**.

The project area is not within an Alquist-Priolo Earthquake Fault Zone, as defined by the California State Department of Conservation, Geological Survey (CGS, formerly the Division of Mines and Geology), and no active or potentially active faults exist on or in the immediate vicinity of the site (CGS, 2002). Therefore, there is low potential that fault rupture would occur within the project area.

Ground Shaking

Historic earthquakes have caused strong ground shaking and damage in the San Francisco Bay Area, the most recent being the M 6.9 Loma Prieta earthquake in October 1989. The epicenter was approximately 32 miles south of the project site, but this earthquake nevertheless caused strong ground shaking for about 20 seconds and resulted in varying degrees of structural damage throughout the Bay Area. Strong ground shaking from a major earthquake could affect Oakland during the next 30 years. Earthquakes on the active faults (listed in **Table IV.J-1**) are expected to produce a wide range of ground shaking intensities at the project site.

Ground shaking may affect areas hundreds of miles from the earthquake's epicenter. A way to describe ground motion during an earthquake is with the motion parameters of acceleration and velocity in addition to the duration of the shaking. A common measure of ground motion is the peak ground acceleration (PGA). The PGA for a given component of motion is the largest value of horizontal ground acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g), which is approximately 980 centimeters per second squared. In terms of automobile accelerations, one "g" of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds. For comparison purposes, the maximum peak acceleration value recorded during the Loma Prieta earthquake was in the vicinity of the epicenter, near Santa Cruz, at 0.64 g. The highest value measured in the east bay during Loma Prieta was 0.29 g, recorded at the Oakland Wharf near the Naval Supply Center. The lowest values recorded were 0.06 g in the bedrock on Yerba Buena Island near the San

Francisco Bay Bridge. However, an earthquake on the nearby Hayward fault could produce far more severe ground shaking at the project site than was observed during the Loma Prieta earthquake. Probabilistic seismic hazard maps indicate that peak ground acceleration in the Project area could reach or exceed 0.58 g (CGS, 2005).[7]

Liquefaction

Liquefaction hazards may be present in loose, saturated soils, such as sands or loamy sands, in which the space between individual particles is completely filled with water. These soils can behave like a dense fluid when exposed to prolonged shaking during an earthquake. Liquefaction is dominated by three main factors: depth of groundwater, soil type, and the seismicity of the area. Liquefaction can be responsible for widespread structural failure.

Per seismic hazard zone maps prepared by the California Department of Conservation, Geological Survey, the project site is located within a seismic hazard zone for liquefaction (CSF, 2005). In accordance with the Seismic Hazard Mapping Act (discussed under Regulatory Framework), a site-specific geotechnical investigation must be conducted for sites within a seismic hazard zone prior to development. At the time of this EIR, a site-specific geotechnical study has not been prepared.

Earthquake-Induced Settlement

Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid compaction and settling of subsurface materials (particularly loose, noncompacted, and variable sandy sediments) due to the rearrangement of soil particles during prolonged ground shaking. Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Areas are susceptible to differential settlement if underlain by compressible sediments, such as poorly engineered artificial fill. Given the geologic setting of the region, the project area could be subjected to earthquake-induced settlement.

Regulatory Framework

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The Alquist-Priolo Act regulates development on or near active fault traces to

[7] A probabilistic seismic hazard map shows the predicted level of hazard from earthquakes that seismologists and geologists believe could occur. The map's analysis takes into consideration uncertainties in the size and location of earthquakes and the resulting ground motions that can affect a particular site. The maps are typically expressed in terms of probability of exceeding a certain ground motion. These maps depict a 10% probability of being exceeded in 50 years. There is a 90% chance that these ground motions will NOT be exceeded. This probability level allows engineers to design buildings for larger ground motions that seismologists think will occur during a 50-year interval, making buildings safer than if there were only designed for the ground motions that are expected to occur in the 50 years. Seismic shaking maps are prepared using consensus information on historical earthquakes and faults. These levels of ground shaking are used primarily for formulating building codes and for designing buildings.

reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces.[8] Cities and counties must regulate certain development projects within the delineated zones, and regulations include withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement (Hart, 1997). Surface fault rupture, however, is not necessarily restricted to the area within an Alquist-Priolo Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. The project area containing sites for new construction are not located within a Seismic Hazard Zone for liquefaction or landslides, as designated by the California Geological Survey (CGS, 2005).

California Building Code

The California Building Code is contained in Title 24 of the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code (CBSC, 2005). Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building codes must be centralized in Title 24 or they are not enforceable.

Published by the International Conference of Building Officials (ICBO), the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the 1997 Uniform Building Code (UBC) with necessary California amendments. These amendments include significant building design criteria that have been tailored for California earthquake conditions (CBSC, 2001).

The project site is located within Seismic Zone 4. Of the four seismic zones, Zone 4 is expected to experience the greatest effects from earthquake groundshaking and therefore has the most stringent requirements for seismic design. The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by state agencies and local governing bodies.

[8] A "structure for human occupancy" is defined by the Alquist-Priolo Act as any structure used or intended for supporting or sheltering any use or occupancy that has an occupancy rate of more than 2,000 person-hours per year.

City of Oakland Regulations

Ordinances and Oakland Municipal Code

The City of Oakland implements the following regulations and ordinances aimed at reducing soil erosion and protecting water quality and water resources:

The City's Grading Ordinance (Ordinance No. 10312 is intended to reduce erosion during grading and construction activities. Pursuant to this ordinance, Chapter 13.16 of the Oakland Municipal Code requires that a project applicant obtain grading permits for earth moving activities under specified conditions of 1) volume of earth to be moved, 2) slope characteristics, 3) areas where "land disturbance" or 4) stability problems have been reported. To obtain a grading permit, the project applicant must prepare and submit to the Public Works Agency a soils report, a grading plan, and an erosion and sedimentation control plan for approval. (Oakland, 2004a)

The City also implements the Sedimentation and Erosion Control Ordinance (Ordinance No. 10446) also aimed at reducing erosion during construction and operations. Pursuant to this ordinance, Chapter 3304.2 of the Oakland Municipal Code requires any person who performs grading, clearing, and grubbing or other activities that disturb the existing soil to take appropriate preventative measures to 1) control erosion; 2) prevent sedimentation of eroded materials onto adjacent lands, public streets, or rights-of-way; and 3) prevent of the flow of eroded materials to any water course, by any route. (Oakland, 2004b)

Building Services Division

In addition to compliance with building standards set forth by the 1997 UBC, the project applicant will be required to submit to the Oakland Building Services Division an engineering analysis accompanied by detailed engineering drawings for review and approval prior to excavation, grading, or construction activities on the project site. Specifically, an engineering analysis report and drawings of relevant grading or construction activities on a project site would be required to address constraints and incorporate recommendations identified in geotechnical investigations. These required submittals and City reviews ensure that the buildings are designed and constructed in conformance with the seismic and other requirements of all applicable building code regulations, pursuant to standard City of Oakland procedures.

Impacts and Mitigation Measures

Significance Criteria

The project would have a significant geologic or seismic impact if it would:

1. Expose people or structures to geologic hazards, soils, and/or seismic conditions so unfavorable that they could not be overcome by special design using reasonable construction and maintenance practices. Specifically,

   – Expose people or structures to substantial risk of loss, injury, or death involving:

a Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publications 42 and 117 and PRC §2690 et. seq.);

b Strong seismic ground shaking;

c Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or

d Landslides;

2. Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways;

3. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as it may be revised), creating substantial risks to life or property;

4. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse;

5. Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property;

6. Be located above landfills for which there is no approved closure and post-closure plan, or unknown fill soils, creating substantial risks to life or property; or

7. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Geology, Soils and Seismicity Impacts

Approach to Analysis

This impact analysis focused on potential effects on geology, soils, and seismicity associated with implementation of the proposed project. The evaluation was based on review of project plans, published geologic, soils, and seismic maps and studies, and applicable regulations and guidelines.

Seismic Hazards

Impact GEO-1: Redevelopment in the project area could expose people or structures to seismic hazards such as groundshaking or liquefaction. (Less than Significant).

The proposed project is located in the San Francisco Bay Area, a region of intense seismic activity. Recent studies by the United States Geological Survey (USGS) indicate there is a 62 percent likelihood of a Richter magnitude 6.7 or higher earthquake occurring in the Bay Area before 2032. The Hayward Fault Zone, the active fault nearest the project site, is the most likely of the active Bay Area faults to experience a major earthquake. In the event of an earthquake on

the nearby Hayward Fault, the project site would experience violent ground shaking. Seismic shaking can also trigger ground-failures caused by liquefaction.[9] The project site is located in a Seismic Hazard Zone for liquefaction, as designated by the CGS (CGS, 2003).

In accordance with City of Oakland requirements, the Project Sponsor would be required to prepare a geotechnical report for the project that includes generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to various geologic and seismic hazards. The geotechnical report would include an analysis of ground shaking effects, liquefaction potential, and provide recommendations to reduce these hazards. Because the project site is within a Seismic Hazard Zone for liquefaction, recommendations for the mitigation and reduction of liquefaction would be prepared in accordance with CGS Guidelines for Evaluating and Mitigating Seismic Hazards (CDMG Special Publication 117, 1997). Geotechnical and seismic design criteria would conform to engineering recommendations consistent with the seismic requirements of Zone 4 of the 1994 or 1997 Uniform Building Code (UBC), and the California Building Code (Title 24) additions.

In addition to compliance with building standards set forth by the 1997 UBC, the project sponsor would be required to submit an engineering analysis accompanied by detailed engineering drawings to the City of Oakland Building Services Division prior to excavation, grading, or construction activities on the project site. This is consistent with standard City of Oakland practices to ensure that all buildings are designed and built in conformance with the seismic requirements of the City of Oakland Building Code. An engineering analysis report and drawings and relevant grading or construction activities on a project site would be required to address constraints and incorporate recommendations identified in geotechnical investigations. These required submittals ensure that the buildings are designed and constructed in conformance with the requirements of all applicable building code regulations, pursuant to standard City procedures. Standard Condition J.1, below, would ensure that the project conforms to all applicable building code regulations.

> **Standard Condition GEO-1: A site-specific, design level geotechnical investigation for each construction site within the project area (which is typical for any large, phased development project) shall be required as part of this project.**
>
> Specifically:
>
> - Each investigation shall include an analysis of expected ground motions at the site from known active faults. The analyses shall be in accordance with applicable City ordinances and policies and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from known active faults.

[9] Liquefaction is the process by which saturated, loose, fine-grained, granular, soil, like sand, behaves like a dense fluid when subjected to prolonged shaking during an earthquake.

- The investigations shall determine final design parameters for the walls, foundations, foundation slabs, and surrounding related improvements (utilities, roadways, parking lots and sidewalks).

- The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer will be included in the final design.

- Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project design phase, shall be incorporated in the project.

- Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to the commencement of the project.

Mitigation: None Required.

Impact GEO-2: Redevelopment in the project area could expose people or structures to surface fault rupture. (Less than Significant).

The project site is not located in an Alquist-Priolo Earthquake Fault Zone, and no active or potentially active faults exist on or in the immediate vicinity of the site. Although surface fault rupture is not necessarily restricted to the area within an Alquist-Priolo Earthquake Fault Zone, the potential risk of surface rupture is highest along active faults. Thus, project impacts related to surface fault rupture would be less than significant.

Mitigation: None Required.

Geologic Hazards

Impact GEO-3: Redevelopment in the project area could be subjected to geologic hazards, including expansive soils, differential settlement, and erosion. (Less than Significant).

Soils containing a high percentage of clays are generally most susceptible to expansion. Expansive soils can damage foundations of above-ground structures, paved roads and streets, and concrete slabs. Expansive soils are common in low-lying alluvial valleys and along the shoreline of the San Francisco Bay. As previously discussed, Clear Lake soils are mapped on the project site and typically exhibit strong expansive (shrink-swell) properties.

If not properly engineered, mud and loose fine-grained sediments (clay and silt) can settle after a building or other load is placed on the surface. According to the Soil Survey of Alameda County, Western Part, site soils have a high potential for differential settlement. Settlement would be a

concern in areas that have not previously supported structures and where new structures would place loads heavier than the soils could tolerate.

Although the Urban-land Clear Lake complex is not highly susceptible to erosion, urban land soils are highly variable in composition, and soil properties cannot be determined without site-specific investigation. Soil exposed by demolition, grading, and construction activities could be subject to erosion if subject to heavy winds or rain.

The City of Oakland requires preparation of a geotechnical report, as well as compliance with and implementation of the geotechnical report recommendations. Compliance with the geotechnical report recommendations, required as part of Standard Condition GEO.1, above, would reduce the potential for the project to result in geological hazards such as soil expansion, differential settlement, and erosion. Furthermore, compliance with Standard Conditions I.1a through I.1e, which is discussed in Section IV.I, Hydrology and Water Quality, would reduce the potential for substantial soil erosion or loss of topsoil during grading and construction activities to less than significant level.

Mitigation: None Required.

Cumulative Impacts

Cumulative Context

As discussed above, the project would not result in potentially significant project-level impacts related to potentially hazardous geologic and seismic conditions. Although the entire Bay Area is within a seismically active region with a wide range of geologic and soil conditions, these conditions can vary widely within a short distance, making the cumulative context for potential impacts resulting from exposing people and structures to related risks one that is more localized or even site-specific.

Cumulative Impacts on Geology, Soils, and Seismicity

Impact GEO-4: The development proposed as part of the project, when combined with other reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils or seismicity. (Less than Significant)

Development of the project, with implementation of the Standard Conditions of Approval discussed above, would have less than significant impacts related to exposing persons or structures to geologic, soils, or seismic hazards. The project, combined with other foreseeable development in the area, could result in increased population and development in an area subjected to seismic risks and hazards. While the number of people visiting, living and working in the area will increase incrementally, exposing additional people to seismic and geological hazards over a short term, the risk to people and property would be reduced through the upgrading or demolishing of older buildings that are seismically unsafe. Older buildings would be

seismically retrofitted and newer buildings will be constructed to stricter building codes. Thus, implementation of the proposed project and other foreseeable projects in the area would be required to implement applicable Standard Conditions of Approval related to geology, soils, and seismicity and would be required to adhere to all federal, state, and local programs, requirements and policies pertaining to building safety and construction permitting. All projects would be required to adhere to adhere to the City's Building Code and grading ordinance. Therefore, the project, combined with other foreseeable development in the area, would not result in a cumulatively significant impact by exposing people or structures to risk related to geologic hazards, soils, and/or seismic conditions.

Mitigation: None Required.

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K. Population, Housing, and Employment

This section describes existing baseline conditions, trends and impacts of the proposed project related to population, housing, and employment. The analysis focuses on the inducement of population growth and on displacement of existing businesses and jobs on the project site.

Environmental Setting

Project Site

Existing Housing and Population

There is no housing or resident population on the project site.

Existing Business Activity and Employment

Baseline business operations located on the project site as of publication of the Notice of Preparation (NOP) for the proposed project (November 2005) includes a commercial self-storage facility, a hardware store/lumber yard, and a commercial retail businesses west of 29th Avenue, and an automotive repair shop, a commercial business and the California Department of Transportation (Caltrans) maintenance yard east of 29th Avenue. As identified in **Table IV.K-1**, The existing operations employ approximately 48 people.

Together, the tenants occupy approximately 158,492 square feet of space, the majority of which is attributable to the commercial self-storage and Caltrans maintenance yard areas.

TABLE IV.K-1
EXISTING USES AND EMPLOYMENT ON THE PROJECT SITE, 2006

Tenant/Use	Estimated Space (sf)	Estimated Employment
West of 29th Avenue		
Commercial Self-Storage	103,461	4
Hardware Store with Lumber Yard; Commercial/Retail Building	17,852	30
Subtotal	*121,313*	*34*
East of 29th Avenue		
Commercial/Retail; Automotive Repair	9,179	4
Caltrans Maintenance Yard	28,000	10
Subtotal	*37,179*	*14*
TOTAL SITE	**158,492**	**48**

SOURCE: Pacific Thomas Capital and Hausrath Economics Group, 2006.

Surrounding Areas of East Oakland

The propose project site is located near the center of San Antonio/Fruitvale area, which is generally I-580 to the Estuary, Lake Merritt to High Street. The site is at the intersection of two major arterials, East 12th Street and 29th Avenue, in the eastern portion of the Fruitvale area. (Fruitvale Avenue is generally the eastern boundary of the Fruitvale area.). **Table IV.K-2** shows the employment, households, and population trends for the project area, city, and region.

TABLE IV.K-2
EMPLOYMENT, HOUSEHOLDS, AND POPULATION FOR AREAS OF EAST OAKLAND SURROUNDING THE PROJECT SITE, OAKLAND, AND REGION 2000 – 2025
(without Project)

	2000	2005	2010	2025	Growth 2000-2025	Growth 2005-2025
PROJECT SITE AND SURROUNDING AREAS						
Employment	64,540	69,430	72,610	81,280	+16,740	+11,850
Households	68,340	69,460	72,520	78,370	+10,030	+8,910
Population	218,700	223,770	230,410	242,780	+24,080	+19,010
OAKLAND[a]						
Employment	198,180	207,640	223,450	259,990	+61,810	+52,350
Households	150,790	154,730	165,910	186,440	+35,650	+31,710
Population	399,480	412,430	434,470	472,480	+73,000	+60,050
TOTAL BAY AREA[b]						
Employment	3,757,900	-	-	4,948,480	+1,190,580	-
Households	2,466,020	-	-	2,994,280	+528,260	-
Population	6,783,760	-	-	8,243,500	+1,459,740	-

NOTE: The numbers presented above do not include the Gateway Community Development Project and assume existing conditions on the project site remain as-is in the future.

[a] U.S. Census 2000; Oakland Cumulative Growth Scenario, May 2006.
[b] Total East Bay includes all of Alameda and Contra Costa counties, and total Bay Area includes all nine Bay Area counties. Totals are from ABAG, *Projections 2002.*

SOURCE: City of Oakland and Hausrath Economics Group, 2006. ESA, 2007.

Overview of Surrounding Area

The San Antonio and Fruitvale areas includes a diverse mix of residential, commercial, and industrial uses, with numerous community services (schools, library, health services) that serve these areas, as well as the broader community. The commercial and community services in this culturally rich area attract visitors from the broader Bay Area. The area has several direct access routes to Interstate 880 (I-880), the Oakland Estuary, and the City of Alameda.

The area has undergone tremendous change in the last century. Although large agricultural estates and residential subdivisions were once the primary land use, the railroad brought industrial uses to the area (including a railroad station), and industrial, commercial, and residential uses located in close proximity to one another has characterized much of the area ever since. As discussed in

Section IV.A, *Land Use, Plans, and Policies*, of this EIR, the construction of I-880 and the Bay Area Rapid Transit (BART) system further disrupted land use patterns in the area. In recent years, the area has experienced a trend of new residential/live-work, commercial/retail and mixed use development on previous large commercial and industrial properties. Parts of the area remain underutilized and in deteriorated condition, and there land use conflicts exist between residential and business and industrial and truck-related operations uses.

In the area immediately surrounding the project and bound by 23rd Avenue/Overpass, International Boulevard, High Street, and the Oakland Estuary (Census Tract 4061) experienced tremendous housing development between 1990 and 2000 – approximately 85 percent of the total new housing that occurred in the larger San Antonio and Fruitvale areas during that period. Since 2000, several major residential and mixed use development projects totaling nearly 777 new housing units have been developed (or are well into the City's application process) in this area immediately surrounding the project site.[1] Further, it is anticipated that over the next few years, the majority of new housing projected for the larger San Antonio and Fruitvale areas would also occur within this immediate area around the project site.

Most of San Antonio/Fruitvale/East Oakland area is currently within an Oakland redevelopment area. The San Antonio and Fruitvale areas are within the Coliseum Redevelopment Plan Project Area bound by 22nd Avenue, the Oakland/San Leandro border, the north side of International Boulevard, and the Oakland Estuary and Doolittle Drive (Oakland Redevelopment Agency, 1995, 1996). The Central City East Redevelopment Plan Project Area lies north and west of the Coliseum Redevelopment Plan Project Area and includes portions of Eastlake, Fruitvale, Central East Oakland, and Elmhurst neighborhoods that make up central and eastern Oakland (Oakland Redevelopment Agency, 2003).

Comparison to Oakland

Table IV.K-2, above, shows that in 2005, approximately 69,430 people were employed within the surrounding East Oakland area, representing about 33 percent of total employment in the City of Oakland. Approximately 69,460 households reside in the surrounding East Oakland area, with a population of about 223,770 residents, indicating a high overall ratio of persons per household. Compared to Oakland overall, nearly 45 percent of the city's households are located in the surrounding East Oakland area, as is just over 50 percent of the population.

In 2005, the San Antonio and Fruitvale areas alone (without the "rest of East Oakland"), which are most immediate to the project site, represent approximately 11 percent (22,100 jobs) of the city's employment, 22 percent (34,220) of its households, and 26 percent (107,260 persons) of the citywide population (see **Table IV.K-8**).

[1] Based on the City of Oakland's Active Major Development Projects List, February-March 2006, these include 74 units in the Cotton Mill Studios; 100 units in the Glascok Residential Project ("The Estuary"); 47 units in the Fruitvale Transit Village; 81 units in the "61 Ford Street Lofts"; approximately 447 units in the Fruitvale Transit Village Phase II; and approximately 28 units at 4021 International Boulevard.

City of Oakland and the Region

Oakland is the third largest city in the Bay Area region and the largest city in the East Bay. Housing, population, and employment growth are occurring in Oakland and projected to continue in the future, bolstering Oakland's role as a centrally-located place of residence and place of employment within the large Bay Area region.

Employment

Employment in Oakland was estimated at 198,190 in 2000, representing about five percent of all employment in the region (see **Table IV.K-2**). Business activity and employment grew substantially in Oakland in the late 1990s, and conditions are anticipated to enabling Oakland to retain and enhance its competitive position as a business center for the region.

Since 2000, employment in Oakland has remained relatively stable with job growth occurring locally in some sectors despite the downturn in the region's economy. Projections for Oakland show growth of approximately 62,000 jobs from 2000 to 2025 without the Gateway Community Development Project (see **Table IV.K-2**). That growth represents about a 31 percent increase in employment in Oakland, and a rate of growth relatively similar to those forecast for the total Bay Area.

Population and Housing

Existing Conditions and Trends

The 2000 Census identified 399,480 people living in Oakland, about 6 percent of the total population of the Bay Area (see **Table IV.K-2**). There were 150,790 households in Oakland in 2000 and an average household size of 2.6 persons per household.

The 2000 Census also identified 157,508 housing units in Oakland (see **Table IV.K-3**). Of the occupied housing units (150,790), 59 percent were renter-occupied and 41 percent owner-occupied. From 1990 to 2000, Oakland's housing stock increased by 2,771 units. During the 1990s, occupancy of the existing housing stock increased as the overall housing vacancy rate declined from 6.6 percent in 1990 to 4.3 percent in 2000 (see **Table IV.K-3**). The city's population increased by 27,240 residents during that period as a result of housing production, occupancy of vacant units, and an increase in the population in existing households.

TABLE IV.K-3
CHANGES IN HOUSING STOCK IN OAKLAND, 1990-2000

	1990		2000		Change
Total Housing Units	154,737		157,508		2,771
Occupied Housing Units	144,521	93.4%	150,790	95.7%	6,269
Vacant Housing Units	10,216	6.6%	6,718	4.3%	(3,498)
Owner-occupied Housing	60,153	41.6%	62,489	41.4%	2,336
Renter-occupied Housing	84,368	58.4%	88,301	58.6%	3,933

SOURCE: U.S. Census, 1990 and 2000.

New Growth in Oakland

Since 2000, the city's housing supply has increased substantially with about 4,300 new units developed in Oakland by the end of 2005 (see **Table IV.K-4**). This represents a substantial change from prior decades during which very little new housing was developed in Oakland. Most of the 2,771 units added in Oakland during the 1990s were built in the latter part of the decade as a result of several factors: strong regional housing demand, fewer remaining locations for development in the suburbs, renewed interest in center city living, relatively affordable land supply, regional and local Smart Growth land use policies, and Oakland's 10K Initiative other and other local efforts such as to attract new housing development to downtown Oakland.

TABLE IV.K-4
HOUSING GROWTH IN OAKLAND
(without Project)

Period	Additional Housing Units	Annual Average
1990 – 2000[a]	2,771	277
2000 – 2005[b]	4,307	861
2006 – 2025[c]	31,480	1,574

[a] 2000 Census.
[b] Housing developed in Oakland from 2000 Census through 2005.
[c] Housing under construction, in approved projects, in projects in pre-development and planning, and housing on housing opportunity sites and other sites considered likely to be developed by 2025.

SOURCE: City of Oakland Housing Element; Oakland Cumulative Growth Scenario, May 2006.

As identified in Oakland's Housing Element, new housing is being built in Oakland, primarily throughout the flatlands of the city. Most of the new housing is multifamily housing, focused in the downtown area, around the city's BART stations, along transit corridors, and in mixed-use neighborhoods. Lofts and other new housing are also being built in older industrial areas of the city. New housing in Oakland includes units covering a range of prices and rents, reflecting Oakland's land use policies that encourage higher-density development and the investment of substantial public funding for affordable housing.

Based on Oakland's Cumulative Scenario and current planning and development activity, up to 10,000 to 12,000 new units could be built over the next five years, 2006 to 2010, most in projects now under construction, already approved, and in the pre-development and planning process. Beyond 2005, projections anticipate additional housing development, without the Gateway Community Development Project, that would represent an increase in Oakland's housing supply by approximately 23 percent over the housing stock identified in the 2000 Census (see **Tables IV.K-3 and IV.K-4**).

Population projections for Oakland indicate growth of approximately 31,710 households and 60,050 residents from 2005 to 2025 (see **Table IV.K-2**).

Employed Residents and Jobs/Housing Relationship

Employed Residents and Where Oakland Residents Work

In 2000, 174,740 people living in Oakland were employed according to the U.S. Census, representing 56 percent of the working age population (the population 16 years of age and older) and 92 percent of the civilian labor force (those 16 years of age and older working or looking for work). In the future, the number of employed residents is anticipated to increase at a faster rate than the growth of population as a result of documented demographic and labor force trends.

Census data indicate that in 2000, about 39 percent of the employed residents of Oakland held jobs in Oakland. Another 16 percent worked in nearby cities of the Inner East Bay, indicating that the majority (55 percent) of Oakland's employed residents work close to home, in Oakland and adjacent cities. (ABAG, 2000 Census)

Oakland Jobs and Where People Working in Oakland Live

About 36 percent of the jobs in Oakland in 2000 were held by people who also lived in the city. Another 15 percent of jobs were held by residents of nearby cities in the Inner East Bay, indicating that over half (51 percent) of Oakland's jobs are held by residents of Oakland and its adjacent cities. (ABAG, 2000 Census)

The overall relationship between jobs and employed residents in an area identifies the extent to which a community enjoys a balanced mix of land uses thereby offering job opportunities to local residents and housing opportunities for workers employed in local jobs. Data and projections for Oakland indicate that Oakland has a good balance of jobs and housing, and that it will continue to have a relatively similar number of jobs and employed residents. According to the 2000 Census and Oakland's Cumulative Scenario, the growth of employed residents of the city (71,050 employed residents growth 2000 to 2025) is anticipated to exceed the growth of jobs in Oakland (approximately 62,000 job growth 2000 to 2025), improving the "balance" of jobs and housing over time (U.S. Census data for 2000).

Project Population and Employment, and Contributions to Citywide Growth

The following discussion quantifies and describes the growth and other changes in population and employment associated with the proposed Gateway Community Development Project. Population and employment changes in and of themselves, are not normally considered to be significant environmental effects under CEQA. However, these changes and effects can be indicators of other impacts, and they can have influence on the significance of those impacts. Thus, the description of population and employment changes that follows is included to provide context for considering and understanding potential physical environmental impacts associated with changes in housing, population, and employment that are analyzed later in this section and in other sections of this EIR chapter (e.g., traffic, public services, and air quality). In addition, the description also identifies beneficial aspects of the project in terms of expanded housing choices.

Project Housing and Population

Table IV.K-5 summarizes the housing, population and employment characteristics of the project. The project would increase the supply of housing in Oakland and expand the housing choices available. The 810 units proposed would be built in six phases over approximately 15 to 20 years; buildout is established as 2025. The project proposes a mix of one-bedroom flats (48 percent), two-bedroom flats (37 percent), three-bedroom flats (10 percent), and two- and three-bedroom townhomes[2] (5 percent). About 58 percent (467) of the units would be built in 7- to 12-story multifamily buildings, 37 percent (300) of the units would be built in two towers, and the remaining 5 percent would be 43 townhomes. The project proposes condominium units with a range of prices that would depend on size, location, and amenities (such as views) of a unit.

At full buildout, the project is anticipated to accommodate 778 households, assuming a long-term average vacancy rate of four percent, consistent with the citywide average. Project population is estimated to include 1,607 people, reflecting an average household size of 2.1 persons per household (see **Table IV.K-5**).

TABLE IV.K-5
SUMMARY OF HOUSING, POPULATION, AND EMPLOYMENT FOR PROPOSED PROJECT

Type	Units	Households (HH)/ Occupied Units[a]	Persons Per HH[b]	Residents	Percent of Total Residents that are Employed[b]	Employed Residents / HH[b]	Total Employed Residents
Mid/High Density Housing (7-story to 16-story buildings)							
1 BR	357	343	1.60	549	78%	1.24	428
2 BR	356	342	2.20	752	70%	1.53	526
3 BR	54	52	3.30	172	56%	1.84	96
Subtotal	*767*	*737*	*1.99*	*1,473*	*71%*	*1.44*	*1,050*
Townhouses (3-story buildings)[c]							
2 BR	1	1	2.20	2	70%	1.40	1
3 BR	42	40	3.30	132	56%	1.85	74
Subtotal	*43*	*41*	*3.30*	*134*	*56%*	*1.82*	*75*
TOTAL PROJECT	**810**	**778**	**2.06**	**1,607**	**70%**	**1.44**	**1,125**

a Assumes long-term, average vacancy of approximately four percent, consistent with citywide data.
b Estimates by Hausrath Economics Group considering data and information for new housing developments and estimated for other Oakland projects, Census data, and data and projections from the Association of Bay Area Governments (ABAG). Population estimates do not assume units devoted to senior housing or units specifically designated as affordable housing.
c For purposes of estimating population, assumes some townhomes would be marketed to family households.

SOURCE: Pacific Thomas Capital, 2006; Hausrath Economics Group, 2006; ESA, 2007.

Project Commercial Uses and Employment

As described in Chapter III (Project Description), the project would provide approximately 25,950 square feet of ground-floor commercial space, in addition to a 5,000 square foot education

2 A single, two-bedroom townhome is proposed in Site VI; all other townhomes (42 units) are proposed as three-bedroom).

center and approximately 3,470 square feet of project offices uses, such as homeowners association (HOA) or property leasing functions. Anticipated tenants for the commercial space would provide neighborhood-serving businesses (i.e., cafes, a laundry, a flower shop, restaurants, etc.) and other neighborhood-scale uses that could complement existing goods and services available to the area. The total commercial space (25,950 square feet) would occur in two 2,900 square-foot spaces and two larger spaces, at 7,110 and 13,040 square feet, at the intersection of East 12th Street and 29th Avenue.

Table IV.K-6 shows that the businesses and other activities in the non-residential space in the project would support an estimated employment of about 97 persons. The majority of the employment would be in the neighborhood-serving commercial retail and services businesses unrelated to the management and maintenance of the project.

TABLE IV.K-6
SUMMARY OF HOUSING, POPULATION, AND EMPLOYMENT ESTIMATES FOR PROPOSED PROJECT

Use	Housing Units	House-holds[b]	Popu-lation[c]	Employed Residents[c]	Non-residential Space (sq. ft.)	Employ-ment[d]
Residential	810	778	1,607	1,125		
Project Management and Maintenance					3,470	9
Commercial: Retail, Services[a]					30,950	88
TOTAL	**810**	**778**	**1,607**	**1,125**	**34,420**	**97**

[a] Includes 5,000 square-foot education center.
[b] Assumes long-term average vacancy of four percent, consistent with citywide average.
[c] Estimated by Hausrath Economics Group considering Census data, data and information for new housing developments, and data and projections from the Association of Bay Area Governments (ABAG) and California Department of Finance (DOF).
[d] Estimated by Hausrath Economics Group considering potential uses as described by the development team and employment densities for comparable uses and developments.

SOURCE: Pacific Thomas Capital, 2006; Hausrath Economics Group, 2006; ESA, 2007.

Net Change in Project Site Population and Employment

Development of the project would redevelop and revitalize a large, visible site that is currently underutilized primarily by commercial self-storage facilities and Caltrans maintenance facility and storage yard. The existing businesses and uses currently occupying the site would have to relocate to allow for the new development. The proposed project would be developed in multiple phases, generally west to east, with each of the six development sites (Sites I through VI) occurring upon completion of the prior site. Thus, removal of existing uses would occur incrementally, as each development site is developed.

Table IV.K-7 summarizes the net changes in project site population and employment at build-out of the project. An overall net increase of 49 jobs is identified after accounting for existing tenants and employment that would have to relocate from the site over time, and the anticipated new uses

TABLE IV.K-7
NET CHANGE IN PROJECT SITE POPULATION AND EMPLOYMENT WITH PROPOSED PROJECT

	Households	Population	Employment
Existing Conditions	–	–	-48
Project Buildout	+778	+1,607	+97
Net Change	+778	+1,607	+49

SOURCE: : Pacific Thomas Capital and Hausrath Economics Group, 2006.

and employment in the project. All of the population growth of 1,607 residents would be a net addition for the site since no housing or residential population currently exists on the property.

Contributions to Citywide Growth

Table IV.K-8 presents projections for housing, population and employment for the surrounding project area and Oakland, including change resulting with the Gateway Community Development Project. These projections are essentially the future growth scenario used for the citywide cumulative analyses in this EIR.[3]

Household and Population Growth

The project and associated changes in General Plan land use classification and zoning to allow residential development on all portions of the project site. Residential use is currently only permitted on the eastern approximately two-thirds of the site, in the *Mixed Housing Type Residential* classification and the *Regional Commercial* classification (subject to the City's General Plan Guidelines). Residential use is currently not permitted in the *Business Mix* classification at the western one-third of the site. The proposed changes would therefore increase the supply of land for residential development in Oakland. Given the strong demand for housing in the region and a relatively fixed supply of land for housing development, the project would increase the amount of housing developed in Oakland and the growth of households and population in the city in the future. Thus, from a long-term citywide perspective, the housing, households, and population in the project would represent additional growth in Oakland over and above what would otherwise occur without the project. The cumulative growth scenario for this EIR has been increased in 2025 to include the household and population growth with the project.

[3] Hausrath Economics Group and the City of Oakland updated the Oakland Cumulative Growth Scenario for purposes of this EIR for the Gateway Community Development Project in March 2006 (referred to therein and in Appendix D as the "Fruitvale Gateway Project"). The project sponsor subsequently modified the project scenario (as described in Chapter III [Project Description] and in this section of the EIR) to reduce the number of residential units (814 to 810, less than 1 percent) and increase commercial space (23,000 to 25,950 square feet, approx. 13 percent or 8 jobs). This degree of change would not substantially alter the 2010 and 2025 cumulative growth projections for housing and employment citywide. (Background on the Cumulative Growth Scenario and more detailed tables are provided in **Appendix D** to this EIR.)

Business Activity and Employment

The project and associated changes in General Plan land use classification and zoning would allow residential development on a site currently designated for *Business Mix* uses and *Regional Commercial* uses. These two classifications encompass non-contiguous areas at the westernmost one-third and easternmost one-third of the site and are separated by the *Mixed Housing Type Residential use* area in the middle one-third of the site. (See **Figure IV.A-2** in Section IV.A, *Land Use, Plans, and Policies,* of this EIR.) As a result, the project would reduce the *potential* for business development and employment growth on the project site and in Oakland. The actual effects on business activity and employment growth in Oakland in the future would depend on market factors and the type of development that would otherwise occur on the site without the project. Industrial uses that are allowed in the existing *Business Mix* and *Regional Commercial* classifications (when coupled with the existing, underlying M-30 General Industrial Zone and limited by provisions of the Zoning Regulations regarding commercial and industrial uses in proximity to existing residential activities) on the site could feasibility accommodate commercial or manufacturing uses that could generate more opportunities for employment than current uses on the site or the proposed project. Alternatively, these classifications could also accommodate low jobs-generating uses, similar to those currently on the site.

The cumulative growth scenario for this EIR includes the business and employment growth for the project by 2025. By comparison, the cumulative scenario *without* the project would likely include somewhat more business and employment growth in Oakland, depending on the future market context and implications of the City's policy considerations regarding conversion of industrial land to residential use. With the project, there would be less business and job growth in exchange for more household and population growth in Oakland as a result of the project.

Impacts and Mitigation Measures

Significance Criteria

The project would have a significant effect regarding population, housing, and employment if it would:

1. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere, in excess of that contained in the City's Housing Element.

2. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere, in excess of that contained in the City's Housing Element.

3. Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads and other infrastructure) such that additional infrastructure is required but the impacts of such were not previously considered or analyzed.

TABLE IV.K-8
HOUSING, HOUSEHOLDS, POPULATION, AND EMPLOYMENT FOR PROJECT AREA AND OAKLAND (with Project)

	2000	2005	2010	2025	Growth 2000-2025	Growth 2005-2025
PROJECT AREA						
San Antonio						
Employment	12,400	12,600	13,060	13,960	+1,560	+1,360
Households	21,100	21,280	22,500	24,560	+3,460	+3,280
Population	61,850	62,810	64,910	68,050	+6,200	+5,240
Fruitvale						
Employment	9,130	9,500	9,750	10,290	+1,160	+790
Households	12,610	12,940	13,910	15,070	+2,460	+2,130
Population	43,310	44,450	46,610	49,010	+5,700	+4,560
Rest of East Oakland (Central East Oakland, Elmhurst, and Airport areas)						
Employment	43,010	47,330	49,800	57,030	+14,020	+9,700
Households	34,630	35,240	36,110	38,740	+4,110	+3,500
Population	113,540	116,510	118,890	125,720	+12,180	+9,210

					2000-2025	
OAKLAND	2000 [a]	2005	2010	2025	Change	Percent
Households [b]	150,790	154,730	165,179	182,682	+31,892	21%
Population	399,480	412,430	432,974	465,102	+65,622	16%
Employed Residents [b]	174,740	180,650	201,670	242,959	+68,219	39%
Total Employment	196,930	209,600	225,565	256,928	+59,998	30%
Ratio Total Employment-to-Employed Residents	1.13:1			1.06:1		

PROJECT		
Households	298	778
Population	620	1,607
Employed Residents	434	1,125
Total Employment	8	97

Notes:
Data shown incorporate the proposed project as described above and in Chapter III (Project Description) of this EIR.

[a] Households, household population, total population, and employed residents are from the 2000 Census.
[b] Projections for 2005, 2010, and 2025 incorporate changes in demographic characteristics of the population in the existing housing stock in Oakland as evidenced in persons per household and employed persons per household factors from ABAG Projections 2002. The demographic characteristics of residents of new housing to be built in Oakland by 2005, 2010, and 2025 are based on those same ABAG factors or are estimated using special factors that better reflect the anticipated population in new housing, for TAZs with little or no housing in 2000 of the types being built (as the ABAG factors are based on the existing population in 2000).

SOURCES: Oakland Cumulative Growth Scenario (see Appendix D), Hausrath Economic Group, May 2006; as modified or the proposed Gateway Community Development Project analyzed herein, ESA, 2007.

The project is evaluated relevant to the above criteria in the following discussion of project impacts.

Local Plans and Policies

Oakland General Plan policies and other applicable plans and policies that pertain to housing, jobs, and related effects, and that apply to the project, are identified and discussed in Section IV.A, *Land Use, Plans, and Policies*. General Plan policies also are addressed in this section, to the extent they are relevant to the significance criteria identified above.

Project and Cumulative Impacts

Displacement of Substantial Housing or Population

There is no existing housing and no residential population on the project site. Therefore, development of the project would not require the demolition of any housing units and would not displace any people residing on the project site. The project would not result in the need to construct replacement housing. There would be no impact.

Inducement of Substantial Population Growth Requiring New Infrastructure

Impact POP-1: The project would not induce substantial population growth, directly, by proposing new housing or businesses, or indirectly, through infrastructure improvements, such that additional infrastructure is required that was not previously considered or analyzed. (Less than Significant)

Housing-induced Population Growth

The project would add up to 810 housing units to Oakland's housing stock, accommodating 778 households and 1,607 residents. No residential use currently exist on the site, therefore, the project will result in additional population growth, and the effect of that growth on other environmental issues (such as transportation, public services, and utilities, etc.) is evaluated throughout Chapter IV of this EIR. Additionally, the project proposes housing and population growth not contemplated in the Oakland General Plan; housing is not permitted in *Business Mix*, and the maximum residential density allowed in *Mixed Housing Type Residential* (generally 30 units per gross acre) is substantially lower than what would result with the project (approximately 84 unit per gross acre). As a result, the project would result in a higher level of population growth than envisioned by the General Plan for portions of the site and would represent an increase in citywide population growth 2005 to 2025. The estimated project population would represent 0.001 percent of the city's population in 2010 and 0.003 percent of the city's population as projected for 2025 (see **Table IV.K-8**)

Additionally, the project could result in additional affordable housing development with additional population growth. The Oakland Redevelopment Agency is required by State law to

spend at least 20 percent of the tax increment generated by development within the Coliseum Redevelopment Plan Area for the provision of affordable housing. State law also requires that when residential units are proposed within a redevelopment area, the Agency ensure that at least 15 percent of the total number of new or rehabilitated residential units be made available as affordable housing. The Agency also has the discretion to provide affordable units outside the Redevelopment Plan Area, provided that twice the number of affordable units (i.e., 30 percent) are provided. The affordable housing requirements apply to the Redevelopment Plan Area in the aggregate, and not to each individual project within the Redevelopment Plan Area.

In summary, the additional 1,607 persons that the project would directly add to Oakland's population would not be substantial population growth.

Job-induced Population Growth

The project would create approximately 97 jobs at buildout – representing net increase of 49 jobs that could require new households and population to provide the additional workers. The project, however, would create 810 additional housing units and an estimated 1,125 employed residents. The projected number of employed residents in the project would be more than ten times the number of jobs created. Thus, the employment growth with the project would not indirectly induce additional population growth.

Infrastructure-induced Population Growth

The project would involve the infill redevelopment of a commercial and industrial site currently developed with low-density uses. The project site is centrally located within an urban area well-served by existing transportation systems and other infrastructure and utilities. The project would include on-site infrastructure improvements to accommodate the higher-density residential development and would involve infrastructure improvements to sidewalks, curbs, gutters, and street/railroad crossings adjacent to the project site. These infrastructure improvements would correct existing deficiencies, modernize old systems, and improve the functioning of the area and quality of the public spaces and would be directly associated with the project (excluding off-site improvements that the project sponsor may implement to enhance safety and pedestrian access to schools adjacent to the site). The proposed improvements are not expected to induce substantial additional population growth in nearby areas.

In overall summary, the project would not induce substantial population growth, directly, as a result of new housing or businesses; or indirectly, as a result of infrastructure improvements. The impact would be less than significant.

Mitigation: None Required.

References – Population, Housing, and Employment

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L. Biological Resources

This section describes the biological resources at the proposed project site and evaluates the potential impacts of the proposed project on those resources. The biological resources present, or likely present, on the site were determined through a biological reconnaissance survey[1] and tree assessment conducted by ESA on February 2, 2005 and March 8, 2005; review of a list of special status plant and animal species for the project area provided by the USFWS Endangered Species Office (USFWS, 2006); and review of previous studies of the project area. In addition, ESA conducted searches of the CDFG California Natural Diversity Data Base (CNDDB) and the California Native Plant Society's (CNPS) Electronic Inventory (CDFG, 2006; CNPS, 2006) for the Oakland East and Oakland West U.S. Geological Survey (USGS) 7.5-minute quadrangles.

Setting

Regional Setting

Oakland is located within the California Floristic Province, Central Western California Region, San Francisco Bay Area subregion (Hickman, 1993).[2] The climate of this subregion is Mediterranean with warm summers and cool, wet winters. Moderate temperatures result in a long growing season that supports a broad range of habitats including marsh and wetland communities, native and non-native grasslands, riparian scrubs and forests, upland oak and mixed evergreen forests, chaparral and upland scrubs. According to the "bioregional" characterizations developed as part of California's Agreement on Biological Diversity (a multi-agency memorandum signed in 1993), Oakland is located within the Bay/Delta Bioregion. Historically, vegetative cover in the project area would have consisted of a mosaic of coastal terrace prairie and coastal scrub communities traversed by riparian corridors, with extensive brackish and salt marshes found bayward of the site

Project Setting

The proposed project is infill development in an area already subjected to a long history of development. The proposed project site is currently covered by a number of buildings, paved areas, and two vacant lots and is located in between the Union Pacific Railroad tracks and East 12th Street, with elevated BART tracks running down the median of East 12th Street. The site is located approximately one-half mile from the Oakland Estuary, one-quarter mile from an undergrounded reach of Sausal Creek, and one-third mile from the nearest remaining aboveground reach of Sausal Creek. The vast majority of natural vegetation in the project vicinity was converted to either agricultural or urban uses over a century ago. Remaining open space in

1 The reconnaissance survey was general in nature and was not sufficient to prove absence of rare, threatened and endangered species.

2 Geographic subdivisions are used to describe and predict features of the natural landscape. The system of geographic units is four-tiered: provinces, regions, subregions, and districts. The State of California is covered by three floristic provinces: California Floristic Province, Great Basin and Desert. The California Floristic Province is the largest, includes most of the state and small portions of Oregon, Nevada and Baja California, Mexico and is made up of six regions.

the vicinity consists of urban parks, where vegetation is landscaped and dominated by turf grasses and non-native trees. Surrounding land uses are urban-residential and industrial. There are a number of non-native trees along the East 12th Street façade of the site. Other than these trees, vegetation is limited to several landscaped areas and weedy plants growing in the vacant lots and in the cracks of the sidewalks.

Vegetation Communities and Associated Wildlife Habitats

Descriptions of plant communities occurring on and within the immediate vicinity of the proposed project site are based on observed site conditions and generally follow the *List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* system (CDFG, 2003). This classification system is similar in structure to previous CDFG classification systems (e.g., Holland, 1986), but is based on the Sawyer and Keeler-Wolf (1995) plant classification system. This classification system is a hierarchical treatment of vegetation communities/wildlife habitats that describes natural communities, naturalized communities, invasive plant associations, and human-influenced and urban landscapes. The vegetation communities generally correlate with wildlife habitat types.

The proposed project site occurs in what can be best characterized as an urban developed area and does not currently support natural or native plant communities. Vegetation types occurring onsite are either ruderal in character or consist of urban landscaping. These communities are described below.

Ruderal

Ruderal habitat occurs along the railroad tracks on the southern border of the project site and on the vacant lot included within the site. Herbaceous vegetation within these areas is dominated almost exclusively by non-native species. Species observed in the project area include non-native grasses, such as Kentucky bluegrass (*Poa annua*) and wild oat (*Avena* sp.), as well as herbaceous species such as cheeseweed (*Malva parviflora*), common groundsel (*Senecio vulgaris*), fennel (*Foeniculum vulgare*), and bristly ox-tongue (*Picris echioides*).

In such an urbanized area, ruderal habitat may provide refuge for reptiles such as western fence lizard (*Sceloporus occidentalis*) as well as seed eating birds such as mourning dove (*Zenaida macroura)*and house finch (*Carpodacus mexicanus*). Vegetated open areas, such as vacant lots may provide foraging habitat for aerial and ground-foraging insect eaters such as *Myotis* bat species. Mammals such as Botta's pocket gopher *(Thomomys bottae)* and western harvest mouse *(Reithrodontomys megalotis)*commonly forage within urban and ruderal areas. These small rodents may attract raptors, including red-tailed hawk (*Buteo jamaicensis)* and red-shouldered hawk (*Buteo lineatus*).

Urban Developed Areas

Much of the project site can be classified as urban developed areas. This community descriptor can be applied to areas occupied by buildings (residential or business), roads, parking lots, and other developed facilities, as well as adjacent landscaped or otherwise heavily disturbed areas. Intact

native plant communities no longer occur in developed areas and these areas provide virtually no habitat for native plants species. Vegetation in developed areas consists primarily of turfgrasses and a wide variety of non-native horticultural species, as well as cultivars of native species such as Monterey pine (*Pinus radiata*), coast redwood (*Sequoia sempervirens*), and coast live oak (*Quercus agrifolia*). Wildlife found in the vicinity of the proposed project site may include the occasional striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), as well as more commonly, American goldfinch (*Carduelis tristis*), and house finch. Larger trees in such areas may provide roosting and nesting habitat for raptors and other birds, particularly along open reaches of creeks. However, the project site likely provides habitat for only a few highly adaptable, generally non-native species, such as European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), and Norway rat (*Rattus norvegicus*).

Streams and Wetlands

Wetlands

No wetlands were identified on or in the immediate vicinity of the proposed project site during ESA's site surveys conducted in February and March of 2005. The vacant lots on the proposed project site were thoroughly inspected for evidence of wetlands. The site is fairly level, with well drained soils. No standing water or other evidence of wetland hydrology was observed during the site visits, nor were areas dominated by wetland plants or areas of saturated soils observed. Since there are no wetlands present on the site, the proposed project could have no substantial adverse effect on federally protected wetlands.

Streams

There are no streams or other potentially jurisdictional drainages located on or adjacent to the project site. This heavily urbanized area supports no riparian habitat or other sensitive natural communities. The nearest creek is Sausal Creek (Sowers, 1993), which runs underneath Fruitvale Avenue east of the project site. The lower reaches of Sausal Creek were undergrounded many years ago and there is no longer any riparian habitat present in this area.

Oakland's Creek Protection Ordinance (Oakland Municipal Code, Title 13, Chapter 13.16.120) requires a Creek Protection Permit for construction that will take place within close proximity to a creek, as defined in the Ordinance. As mentioned above, the nearest extant creek, is located approximately one-fifth of a mile from the project site. Therefore a Creek Protection Permit will not be required for the project.

Wildlife Movement and Overall Biological Value of the Site

The proposed project site lies within a heavily urbanized area of Oakland, adjacent to a major railroad corridor and numerous heavily traveled city streets and within close proximity to I-880. These transportation corridors all provide major impediments to wildlife movement. There are no stream corridors remaining aboveground within the project vicinity to facilitate wildlife movement and there are no natural plant communities remaining in the area. Therefore, the overall biological value of the proposed project site is considered to be quite low.

Special-status Species

A number of species known to occur in the project vicinity are protected pursuant to federal and/or State endangered species laws, or have been designated Species of Special Concern by the CDFG. In addition, CEQA Guidelines Section 15380(b) provides a definition of rare, endangered or threatened species that are not included in any listing.[3] Species recognized under these terms are collectively referred to as "special-status species." For the purposes of this EIR, special-status species include:

- Plant and wildlife species listed as rare, threatened or endangered under the federal or State endangered species acts;
- Species that are candidates for listing under either federal or State law;
- Species formerly designated by the USFWS as Species of Concern or by CDFG as Species of Special Concern;
- Species protected by the federal Migratory Bird Treaty Act (16 U.S.C. 703-711);
- Species such as candidate species that may be considered rare or endangered pursuant to Section 15380(b) of the CEQA Guidelines.

This analysis involved review of a comprehensive list of the special status species that have been documented from, or have potential to occur in suitable habitat within, the general project area. These lists were obtained from the California Natural Diversity Database (CDFG, 2006), California Native Plant Society Electronic Inventory (CNPS, 2006), and the USFWS (USFWS, 2006). Based on ESA's review of the biological literature of the region, previous EIRs and surveys in the project vicinity, and an evaluation of the habitat conditions of the existing and proposed project sites, many of these species were eliminated from further evaluation because (1) the project site or the immediate area does not provide suitable habitat, or (2) the known range for a particular species is outside of the project site and/or the immediate area. The California Natural Diversity Data Base (CNDDB) documents occurrences of special status species within the vicinity of the proposed project site. However, these are primarily historical, with many dating from the late 1800s (CDFG, 2006) and most native species have been extirpated from the area since that time. Habitat either no longer exists, or never existed, on-site or nearby for most of the sensitive species listed by the USFWS (2006), CNDDB (2006), or the California Native Plant Society (CNPS, 2006). Ongoing disturbance and development in the vicinity make it highly unlikely that the proposed project would have direct adverse effects on any special status species. The exception to this is several special status raptors and bat species, presented in **Table IV.L-1**, for which potential habitat (i.e. general habitat types that would support either breeding or foraging) occurs within or in the vicinity of the project site. These species and the potential for their occurrence are also discussed in further detail below.

[3] For example, vascular plants listed as rare or endangered or as List 1 or 2 by the CNPS are considered to meet Section 15380(b).

TABLE IV.L-1
SPECIAL STATUS SPECIES WITH POTENTIAL TO OCCUR AT OR WITHIN THE VICINITY OF THE PROJECT SITE

Common Name *Scientific Name*	Listing Status UFWS/CDFG	Habitat	Potential to Occur	Period of Identification
Birds				
Cooper's hawk *Accipiter cooperi*	--/CSC	Generally nests in riparian growths of deciduous trees and live oak woodlands. Also known to nest in large trees in urban parks and neighborhoods. Forage in woodlands and urban neighborhoods.	**Moderate potential.** Unlikely to nest within the immediate vicinity of the project site but may nest in nearby parks and forage throughout the area.	Year-round
Red-tailed hawk *Buteo jamaicensis*	--/3503.5	Usually nests in large trees, often in woodland or riparian deciduous habitats. Forages over open grasslands and woodlands and urban neighborhoods. Can be seen perching on light standards along freeways in the project area.	**Moderate potential.** Unlikely to nest within the immediate vicinity of the project site but may nest in nearby parks and forage throughout the area.	Year-round
Red-shouldered hawk *Buteo lineatus*	--/3503.5	Usually nests in large trees, often in woodland or riparian deciduous habitats. Forages over open grasslands and woodlands and urban neighborhoods. Can be seen perching on light standards along freeways in the project area.	**Moderate potential.** Unlikely to nest within the immediate vicinity of the project site but may nest in nearby parks and forage throughout the area.	Year-round
Mammals				
Pallid bat *Antrozous pallidus*	--/CSC	Day roosts are mainly in caves, crevices, and mines; also found in buildings and under bark. Forages in open lowland areas	**Moderate potential.** Abandoned buildings and trees located on the project site.	March–August
Townsend's western big-eared bat *Corynorhinus townsendii*	FSC/CSC	Roosts in caves, mines, buildings or other human-made structures for roosting. Forages in open lowland areas	**Moderate potential.** Abandoned buildings and trees located on the project site.	March-August
Greater western mastiff bat *Eumops perotis californicus*	FSC/CSC	Needs rock crevices, grassland, coastal scrub; may use urban areas	**Moderate potential.** Suitable roosting habitat is present within the project vicinity.	March–August
Long-eared myotis *Myotis evotis*	FSC/--	Inhabits woodlands and forests up to approximately 8,200 feet in elevation; roosts in crevices and snags.	**Moderate potential.** Suitable roosting habitat is present in the project area.	March–August
Fringed myotis Myotis thysanodes	FSC/--	Inhabits a variety of woodland habitats, roosts in crevices or caves, and forages over water and open habitats.	**Moderate potential. Suitable roosting habitat is present within the project vicinity.**	March–August

TABLE IV.L-1 (continued)
SPECIAL STATUS SPECIES WITH POTENTIAL TO OCCUR AT OR WITHIN THE VICINITY OF THE PROJECT SITE

Common Name *Scientific Name*	Listing Status UFWS/CDFG	Habitat	Potential to Occur	Period of Identification
Mammals (cont.)				
Long-legged myotis *Myotis volans*	FSC/--	Roosts in rock crevices, buildings, tree bark, snags, mines, and caves. Trees are perhaps the most important daytime roosts for this species.	**Moderate potential.** Suitable roosting habitat is present in the project area.	March–August
Yuma myotis *Myotis yumanensis*	FSC/CSC	Roosts in caves, old buildings, and under bark. Forms maternity colony in the spring.	**Moderate potential.** Suitable roosting habitat is present in the project area.	March–August

Status Codes:

Federal (USFWS):
FE = Listed as Endangered (in danger of extinction) by the Federal Government.
FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the Federal Government.
FP = Proposed for Listing as Endangered or Threatened.
FC = Candidate to become a proposed species.
FSC/FSLC = former Federal Species of Concern/Federal Species of Local Concern. FWS no longer lists species of concern but suggest that they still be considered. These are formerly listed species that may be endangered or threatened, but not enough biological information has been gathered to support listing at this time.
FD = Delisted by the Federal Government

State (CDFG):
CE = Listed as Endangered by the State of California
CT = Listed as Threatened by the State of California
CSC = California Species of Special Concern
* = Special Animals

3503.5=Protection for nesting species of raptors (hawks, falcons, and owls)

-- No applicable listing

SOURCE: CDFG, 2006; CNPS, 2006; USFWS, 2006.

Special-status Plant Species

No special status plant species are expected to occur at the project site due, for the most part, to its highly disturbed and developed nature, as described above in the *Project Setting*. There are no natural plant communities remaining at the project site. In addition, a thorough review and analysis of the special status plant species listed by the databases as occurring in the project vicinity, indicates that the potential to occur for most of the species listed is extremely low or non-existent due to one or more of the following reasons:

- Suitable habitat for the species either never existed on the project sites or no longer does due to development or other historical and ongoing disturbance of soils and vegetation;
- The species is not documented within the general vicinity of the project sites;
- Only historical occurrences for the species are documented from the area;
- The species has been extirpated from the quadrangle or county.

Special-status Wildlife Species

The following species are either former federal species of concern, State species of concern, or are protected under the California Fish and Game Code (see *Regulatory Setting* section) and have a moderate potential to occur within the project area.

Cooper's Hawk. The Cooper's hawk, a California species of special concern, ranges over most of North America, and may be seen throughout California. While nesting pairs have generally declined throughout the lower elevation, more populated, parts of the state this species appears to be adapting to urban life. This species feeds primarily on other birds, including pigeons (*Columba livia*) The Cooper's hawk forages in open woodlands and wooded margins and nests in tall trees, often in riparian areas (Ehrlich, et al., 1988) but can also be seen foraging in urban neighborhoods. Although no trees large enough for nesting purposes occur on the project site, there are trees within a 500 foot line of sight that may provide potential nesting habitat and perching habitat for this species and Cooper's hawk may also forage in the area..

Red-tailed Hawk. Red-tailed hawks are commonly found in woodlands and open country with scattered trees as well as in urban areas. These large hawks feed primarily on small mammals, but will also prey on other small vertebrates, such as snakes and lizards, as well as on small birds and invertebrates. Red-tailed hawks nest in a variety of trees in woodland, agricultural, and urban habitats. Although no trees large enough for nesting purposes occur on the project site, there are trees within a 500 foot line of sight that may provide potential nesting habitat for red-tailed hawks parks or neighborhoods near the project area and these hawks may use the vacant lots included within the project site for foraging purposes.

Red-shouldered Hawk. Red-shouldered hawks are relatively common in urban situations and can be found in residential neighborhoods and along riparian corridors or other waterbodies. These hawks hunt primarily for mammals, reptiles, and amphibians (Sibley, 2001). Although no trees large enough for nesting purposes occur on the project site, there are trees within a 500 foot line of sight that may provide potential nesting habitat for this species in the vicinity of the project area and the vacant lots included in the project site may provide foraging habitat.

Pallid Bat. Pallid bats (*Antrozous pallidus*) are California species of special concern and inhabit open, dry grasslands, woodlands, shrublands and forests and lower elevations throughout California. Rocky outcrops, cliffs, hollow trees and crevices are required for roosting. Pallid bats are highly maneuverable and glean insects and arachnids from the ground. These bats may forage over the project site and roost in crevices and in peeling tree bark and snags or in abandoned or under-utilized buildings on or adjacent to the project site.

Townsend's Big-eared Bat. Townsend's big-eared bats (*Corynorhinus townsendii)* are locally common in coastal and lower montane habitats throughout California, although details of its distribution are uncertain. These bats, a former federal Species of Concern and California Species of Special Concern, occur in a variety of habitats from the coastal conifer and broad-leaf forests to semi-arid scrubland and grasslands of the desert and eastern Sierra Nevada foothills. They feed primarily on small moths which they capture in flight or glean from vegetation and other soft-

bodied insects. These species are primarily cave dwellers, and have been found roosting in limestone caves, lava tubes, mine tunnels, buildings and a variety of other man-made structures. The project site and vicinitymay provide potential roosting and foraging habitat for this species.

Greater Western Mastiff Bat. Mastiff bats are the largest North American bat. In California, the greater western mastiff bat (*Eumops perotis californicus)*, a former federal species of concern and California species of special concern, is distributed in low-elevation habitats from central California southward through the coastal basins of central and southern California and western portions of the deserts, and southeastward into central Mexico. Populations have declined dramatically in the past few decades and many previous localities no longer support this species. Mastiff bats generally occur in low-elevation, rugged, rocky areas where large crevices are available for day roosts. The crevices must open downward to allow individuals to free-fall 6-10 feet prior to taking flight. Exfoliating slabs of granite and sandstone provide excellent roosting habitat. They also roost in buildings and have been known to roost in urban environments (e.g., downtown Los Angeles). These bats regularly forage 100-200 feet above the ground, but may forage as high as 2,000 feet. They typically travel up to 15 miles along riparian corridors while foraging and will forage for up to 6 to 7 hours per night. This species may roost within abandoned or under-utilized buildings in the project vicinity.

Long-eared Myotis. Long-eared myotis, a former federal species of concern, inhabits nearly all brushlands, woodlands, and forests, seeming to prefer coniferous forests and woodlands. Roosts include caves, buildings, snags, and crevices in tree bark. Caves provide night roosts. This species is highly maneuverable in its forays for arthropods over water, open terrain, and in habitat edges. Large trees, as well as abandoned or under-utilized buildings in the project area may provide potential roosting habitat for long-eared myotis.

Fringed Myotis. Fringed myotis, a former federal species of concern, occurs throughout California and is most frequent in coastal and montane forests and near mountain meadows (Jameson and Peeters, 1988). This species uses echolocation to find moths, beetles, and other prey and forms nursery colonies in caves and old buildings (Jameson and Peeters, 1988). Fringed myotis often use separate day and night roosts. Potential roosting habitat in the project area consists of peeling bark in large trees or abandoned or under-utilized buildings.

Long-legged Myotis. A former federal species of concern, this species is widespread throughout the west and most commonly found in woodland and forest habitats above 1200 m (4000 ft). The long-legged myotis feeds primarily on moths and will also eat other flying insects. This species feeds at fairly low heights over water, close to trees and cliffs, and in openings in woodlands and forests. The long-legged myotis roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves. Separate day and night roosts may be used. Trees probably are the most important day roosts. Caves and mines are used only as night roosts. This species forms nursery colonies numbering hundreds of individuals, usually under bark or in hollow trees, but occasionally in crevices or buildings.

Yuma Myotis. The Yuma myotis, while common and widespread in California, is a former federal species of concern and a State species of concern. The species is found in a wide variety

of habitats ranging from sea level to 11,000 feet, but it is uncommon to rare above 2560 m (8000 ft). Optimal habitats are open forests and woodlands with sources of water over which to feed. Yuma myotis feed on a wide variety of small flying insects found by echolocation. This species usually feeds over water sources such as ponds, streams, and stock tanks. The Yuma myotis roosts in buildings, mines, caves, or crevices. The species alsohas been seen roosting in abandoned swallow nests and under bridges. Separate, often more open, night roosts may be used. Distribution is closely tied to bodies of water, which it uses as foraging sites and sources of drinking water.

Sensitive Communities

The CNDDB lists three sensitive natural communities as occurring in the Oakland East and Oakland West U.S. Geological Survey quadrangles: northern coastal salt marsh, northern maritime chaparral, and serpentine bunchgrass grassland. However, none of these communities, as described by Holland (1986), occurs on or in the vicinity of the proposed project site.

Critical Habitat

The USFWS has designated Critical Habitat for a number of species in Alameda County, including California red-legged frog (*Rana aurora draytonii*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), and California tiger salamander (*Ambystoma californiense*). However, such designations tend to avoid heavily urbanized areas, focusing instead on habitat that still contains the constituent elements required by these species for survival, and the project site is not included within any of the designated Critical Habitat Units for these species.

Regulatory Setting

Regulation of Special-status Species

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 United States Code [USC] 1533[c]). Pursuant to the requirements of FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed, threatened, or endangered species, or species proposed for federal listing may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the federal agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Adverse project impacts on these species or their habitats would be considered potentially significant.

Procedures for addressing federal-listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the Act for all terrestrial species, and/or

the NMFS, which has jurisdiction over anadromous salmonids. The first pathway (FESA, Section 10(a) Incidental Take Permit) is set up for situations where a non-federal government entity (or where no federal nexus exists) must resolve potential adverse impacts to species protected under the Act. The second pathway (FESA, Section 7 Consultation) and involves projects with a federal connection or requirement; typically these are projects where a federal lead agency is sponsoring or permitting the proposed project. For example, a permit from the U.S. Army Corp of Engineers (USACE) may be required if a project will result in wetland impacts. In these instances, the federal lead agency (e.g., the USACE) initiates and coordinates the following steps: informal consultation with USFWS and/or NMFS to establish a list of target species; preparation of biological assessment assessing potential for the project to adversely affect listed species; coordination between state and federal biological resource agencies to assess impacts/proposed mitigation; and development of appropriate mitigation for all significant impacts on federally listed species.

The USFWS and/or NMFS ultimately issue a final Biological Opinion on whether the project will affect the federally listed species. A Section 10(a) Endangered Species Incidental Take Permit may be necessary when the "taking" or harming of a species is incidental to the lawful operation of a project.

The USFWS also publishes a list of candidate species. Species on this list receive "special attention" from federal agencies during environmental review, although they are not otherwise protected under FESA. The candidate species are taxa for which the USFWS has sufficient biological information to support a proposal to list as Endangered or Threatened.

California Endangered Species Act

Section 2080 of the California Fish and Game Code prohibits the taking of plants and animals listed under the authority of the California Endangered Species Act of 1984 (CESA). Under the California Endangered Species Act (CESA), CDFG maintains a list of threatened species and endangered species (Cal. Fish and Game Code 2070). The CDFG also maintains a list of candidate species that are species that the CDFG has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. The CDFG also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species.

Other Statutes, Codes, and Policies Affording Limited Species Protection

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of prey are protected in California under the State Fish and Game Code, Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in

the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFG. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Project impacts to these species would not be considered significant unless they are known or have a high potential to nest in the project area or to rely on it for primary foraging.

Plants

The legal framework and authority for the state's program to conserve plants come from various legislative sources, including CESA, the California Native Plant Protection Act (Fish and Game Code Section 1900 – 1913), CEQA Guidelines, and the Natural Communities Conservation Planning Act.

The Native Plant Protection Act of 1977 (Fish and Game Code Section 1900 et seq.) gives the CDFG authority to designate State Endangered, Threatened, and Rare plants and provides specific protection measures for identified populations. Sensitive plant and wildlife species that would qualify for listing but are not currently listed are afforded protection under CEQA. The CEQA Guidelines, Section 15065 ("Mandatory Findings of Significance") requires that a reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 ("Rare or endangered species") provides for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing.

California Native Plant Society (CNPS) maintains a list of special status plant species based on collected scientific information. Designation of these species by CNPS has no legal status or protection under federal or state endangered species legislation. CNPS designations are defined as List 1A (plants presumed extinct); List 1B (plants rare, threatened, or endangered in California and elsewhere); List 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere); List 3 (plants about which more information is needed – a review list); and List 4 (plants of limited distribution - a watch list). In general, plants appearing on CNPS List 1A, 1B or 2 meet the criteria of Section 15380 of the CEQA Guidelines; thus, substantial adverse effects to these species would be considered significant. Additionally, plants constituting CNPS List 1A, 1B or 2 meet the definitions of California Department Fish and Game Code Section 1901 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act).

Wetlands

U.S. Army Corps of Engineers

Wetlands and other waters, e.g., rivers, streams and natural ponds, are a subset of "waters of the U.S." and receive protection under Section 404 of the CWA. The regulations and policies of various federal agencies (e.g., USACE, U.S.D.A, and Natural Resource Conservation Service [NRCS], USEPA) mandate that the filling of wetlands be avoided to the extent possible. The

USACE has primary federal responsibility for administering regulations that concern waters of the U.S. In this regard, the USACE acts under two statutory authorities, the Rivers and Harbors Act (Sections 9 and 10), which governs specified activities in "navigable waters," and the CWA (Section 404), which governs specified activities in "waters of the United States," including wetlands. Navigable waters of the United States are defined as those waters that are a subject to the ebb and flow of the tide or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. USEPA has the ultimate authority for designating dredge and fill material disposal sites and can veto the Corp's issuance of a permit to fill jurisdictional waters of the U.S.

The term "waters of the U.S. " as defined in Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes: (1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters including interstate wetlands; (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce; (4) All impoundments of waters otherwise defined as waters of the United States under the definition; (5) Tributaries of waters identified in paragraphs (1) through (4); (6) Territorial seas; and (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6). The USACE requires obtaining a permit if a project proposes placing structures within navigable waters and/or alteration of waters of the United States.[4]

Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) regulates waters of the state under the Porter-Cologne Act. Under Section 401 of the CWA, the RWQCB has review authority of Section 404 permits. The RWQCB has a policy of no-net-loss of wetlands in effect and typically requires mitigation for all impacts to wetlands before it will issue a water quality certification.

[4] Based on the Supreme Court ruling (SWANCC) concerning the Clean Water Act jurisdiction over isolated waters (January 9, 2001), non-navigable, isolated, intrastate waters based solely on the use of such waters by migratory birds are no longer defined as waters of the United States. Jurisdiction of non-navigable, isolated, intrastate waters may be possible if their use, degradation, or destruction could affect other waters of the Unites States, or interstate or foreign commerce. Jurisdiction over such other waters are analyzed on a case-by-case basis. Impoundments of waters, tributaries of waters, and wetlands adjacent to waters should be analyzed on analyzed on a case-by-case basis. A more recent Supreme Court case, *Rapanos v. United States* (2006), also questioned the definition of "waters of the United States" and the scope of federal regulatory jurisdiction over such waters, but left open the question as to whether the CWA extends to those waters and wetlands that have a 'significant nexus' to navigable waters of the United States, or whether it is limited to waters with a continuous connection. The implications of this ruling are still being tested in the courts. For example, the California Ninth Circuit Court of Appeals decision, in *Northern California River Watch v. City of Healdsburg* (August 10, 2006), relied on the "significant nexus" definition, an interpretation that suggests little change in the scope of the CWA. To date, neither the USEPA nor the USACE have issued guidelines as to how to implement the CWA in light of these latest rulings. In practice, USACE jurisdictional authority remains as it was prior to *Rapanos*, although the potential exists for changes in the future based on Court decisions and pending regulatory guidance.

Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the State, and prospective dischargers are required to submit a report of waste discharge to the RWQCB and comply with other requirements of Porter-Cologne.

California Department of Fish and Game

The CDFG has jurisdiction over certain aquatic resources and associated riparian habitats under California Fish and Game Code Sections 1600-1616 for Lake and Streambed Alteration Agreements. Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify the CDFG before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state.

City of Oakland Regulations

Tree Preservation and Removal Ordinance

This City ordinance (Oakland Municipal Code Chapter 12.36) requires a permit for removal of protected trees. A permit is also required if work might damage or destroy a protected tree. A "protected tree" is a coast live oak four inches or larger in diameter measured four-and-a-half feet above the ground (diameter at breast height), or any other species nine inches in diameter or larger at breast height, except eucalyptus and Monterey pine trees. Tree permits are reviewed and approved by the Public Works Agency. Tree planting plans are approved by the Tree Services Department of the Office of Parks and Recreation.

Creek Protection, Stormwater Management and Discharge Control Ordinance

Oakland updated its stormwater ordinance in 1997 to provide new and stronger provisions to safeguard and manage creeks. The ordinance is now called the Creek Protection, Stormwater Management and Discharge Control Ordinance and includes permitting guidelines for development and construction projects taking place on a creekside property.

Habitat Conservation Plans

No Habitat Conservation Plans, Natural Community Conservation Plans, or other local, regional, or state habitat conservation plans that apply to this part of Oakland. Therefore no further discussion on this topic is provided.

Impacts and Mitigation Measures

Significance Criteria

A biological resources impact is considered to be significant if it would meet any of the following criteria:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;

3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

5. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;

6. Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code [OMC] Chapter 12.36) due to removal of protected trees under certain circumstances. Factors to be considered in determining significance include the number, type, size, location, and condition of (a) the protected trees to be removed and/or affected by construction, and (b) the protected trees to remain, with special consideration given to native trees.[5]

   Protected trees include the following:

   Quercus agrifolia (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more that five Monterey pine trees per acre are proposed to be removed are considered to be protected trees.

7. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and aquatic habitat through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of water, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d)

[5] Oakland Planning Code Section 17.158.280E2 states that "Development related" tree removal permits are exempt from CEQA if no single tree to be removed has a dbh of 36 inches or greater **and** the cumulative trunk area of all trees to be removed does not exceed 0.1 percent of the total lot area.

adversely affecting the riparian corridor by significantly altering vegetation or wildlife habitat.

Determining Significance

In addition to the significance criteria listed above, the following approaches to, and definitions of, significance of impacts to biological resources, drawn from several sections of the CEQA Guidelines, were considered in the impacts analysis for this EIR.

- CEQA (Section 15065) directs lead agencies to find that a project may have a significant effect on the environment if it has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.

- CEQA (Section 15206) further specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats including, but not limited to, riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species.

- CEQA (Section 15380) further provides that a plant or animal species, even if not on an official list, may be treated as "rare or endangered" if, for example, it is likely to become endangered in the foreseeable future.

- Additional criteria to assess significant impacts to biological resources due to the proposed project are specified in the CEQA Guidelines Section 15382 (Significant Effect on the Environment) "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

Impact Discussion

The proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS; have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan; and will not fundamentally conflict with the City of Oakland Creek Protection Ordinance through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of water, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) adversely affecting the riparian corridor by significantly altering vegetation or wildlife habitat.

Project implementation does, however, have the potential to result in the following impacts to protected trees and special-status birds and bays as discussed below. Potential impacts will be

reduced to less than significant levels through implementation of the City of Oakland's standard conditions of approval and the mitigation measures proposed in this EIR.

Protected Trees

Impact BIO-1: Implementation of the proposed project could result in the removal and pruning of, and potential damage to protected trees. (Potentially Significant)

Oakland's Tree Protection Ordinance (Oakland Municipal Code, Title 12, Chapter 12.36) requires a permit for removal of any protected tree (12.36.040). The project would likely result in the removal of up to 73 existing trees that are located on or adjacent to the project site (see **Figure IV.L-1**). Of the total, 41 trees are located west of 29th Avenue and 32 trees are located along or east of 29th Avenue.

Forty-seven (47) of the 73 potentially affected trees have a "diameter at breast height" (dbh)[6] greater than 9 inches. A total of 46 are "protected trees" (except eucalyptus) subject to the Oakland's Tree Protection Ordinance, and therefore a Tree Removal Permit will be required.

None of the potentially affected trees are native to the area. A Tree Permit application is not required to mitigate (i.e., replace) for the removal of nonnative trees (Oakland Municipal Code Section 12.36.060). Project landscaping would include a varied landscape palette, including trees. Oakland's Street Tree Plan provides guidelines and recommendations for street tree planting throughout the city, and City approval is required prior to any street tree planting.

Since none of the potentially affected trees are native to the area, it is not anticipated that replacement would be required (Oakland Municipal Code Section 12.36.060). Therefore, the project would not fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance. The project would remove 73 trees total (46 of which are "protected trees"), and no existing trees would remain or potentially be affected or damaged by construction activity. The project applicant must secure a tree removal permit and abide by the conditions of that permit.

> **Standard Condition BIO-1a: Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit, and abide by the conditions of that permit.**

6 The Oakland Tree Protection Ordinance (12.36.020) defines diameter at breast height (dbh) as " … tree trunk diameter measured at four and one-half feet above the ground."

TABLE IV.L-2
KEY TO EXISTING TREES NEAR OR ON THE PROJECT SITE MAP (FIGURE IV.L-1)

Map No.	Potentially Subject to Tree Ordinance[a]	Common Name	Species	Stem DBH[b] (estimated inches)	Notes
West of 29th Avenue					
1	X	Ash	*Fraxinus sp.*	10”	
2	X	Ash	*Fraxinus sp.*	12”	3 stems
3	X	Ash	*Fraxinus sp.*	11”	3 stems
4		Ash	*Fraxinus sp.*	Dead	Dead
5		Ash	*Fraxinus sp.*	8.5”	3 stems
6	X	Privet	*Ligustrum lucidum*	16”	
7	X	Privet	*Ligustrum lucidum*	16”	
8	X	Privet	*Ligustrum lucidum*	18”	Round-headed canopy
9	X	Privet	*Ligustrum lucidum*	20”	Not healthy, multi-trunked
10	X	Privet	*Ligustrum lucidum*	20”	Multi-branched
11	X	Pear	*Pyrus communis*	8”	Fruiting, healthy
12	X	Privet	*Ligustrum lucidum*	12”	Pruned heavily at base; not a valuable tree
13	X	Privet	*Ligustrum lucidum*	20”	
14		Ash (Dead)	*Fraxinus sp.*	6”	Dead
15	X	Privet	*Ligustrum lucidum*	15”	Three branches start at 5’, tall, healthy
16	X	Privet	*Ligustrum lucidum*	19”	Two stems
17	X	Privet	*Ligustrum lucidum*	16”	
18	X	Privet	*Ligustrum lucidum*	12”	Three stems (above dbh)
19	X	Privet	*Ligustrum lucidum*	12”	
20	X	Privet	*Ligustrum lucidum*	20”	Two stems- both 10”; large root has raised sidewalk
21	X	Peach	*Prunus persica*	6”	Not a valuable tree
22	X	Privet	*Ligustrum lucidum*	17”	Three stems at 5’, healthy
23	X	Privet	*Ligustrum lucidum*	12.5”	Wide and healthy
24	X	Privet	*Ligustrum lucidum*	14”	Healthy
25	X	Privet	*Ligustrum lucidum*	16”	
26	X	Privet	*Ligustrum lucidum*	16”	
27	X	Privet	*Ligustrum lucidum*	10”	
28	X	Privet	*Ligustrum lucidum*	16”	
29	X	Privet	*Ligustrum lucidum*	13”	
30	X	Privet	*Ligustrum lucidum*	14”	
31		Eucalyptus	*Eucalyptus* sp.	11”	
32		Eucalyptus	*Eucalyptus* sp.	9”	
33		Eucalyptus	*Eucalyptus* sp.	10”	
34		Crape Myrtle	*Lagerstroemia indica*	2-3”	
35		Crape Myrtle	*Lagerstroemia indica*	2-3”	
36		Crape Myrtle	*Lagerstroemia indica*	2-3”	
37		Crape Myrtle	*Lagerstroemia indica*	2-3”	
38		Crape Myrtle	*Lagerstroemia indica*	2-3”	
39		Crape Myrtle	*Lagerstroemia indica*	2-3”	
40		Crape Myrtle	*Lagerstroemia indica*	2-3”	
41		Crape Myrtle	*Lagerstroemia indica*	2-3”	

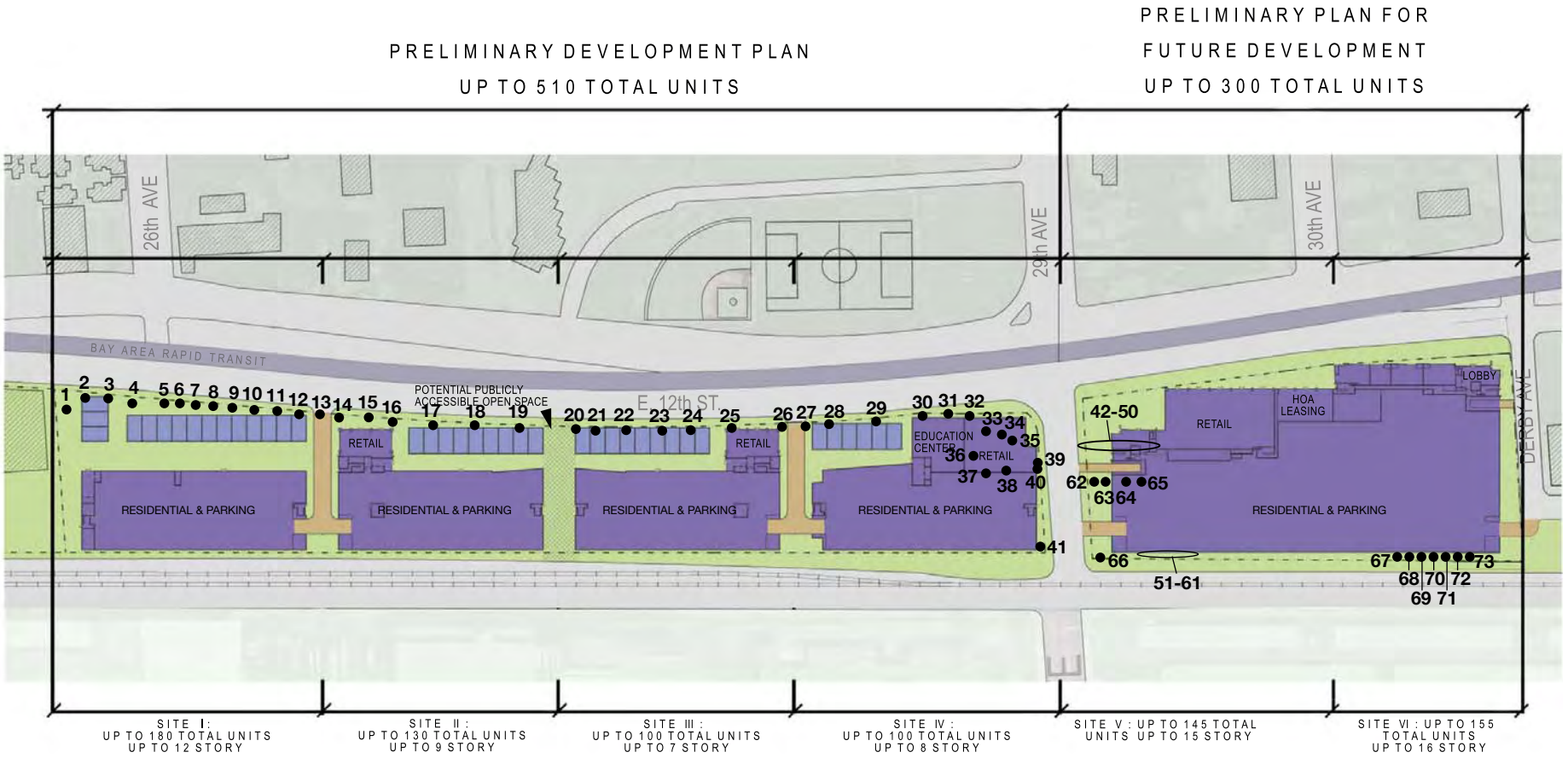
[a] Meets definition of protected tree (Oakland Tree Ordinance 12.36.020) “*Quercus agrifolia* measuring four inches dbh or larger, and any other tree measuring nine inches dbh or larger except Eucalyptus and *Pinus radiata.”*

[b] DBH = (Oakland Tree Ordinance 12.36.020) “dbh (diameter at breast height) means trunk diameter measured at four and one-half feet above ground. For multistemmed trees, a permit is required if the diameter of all individual trunks, when added together, equals or exceeds the minimum size stipulated for the species.

TABLE IV.L-2 (continued)
KEY TO EXISTING TREES NEAR OR ON THE PROJECT SITE MAP (FIGURE IV.L-1)

Map No.	Potentially Subject to Tree Ordinance[a]	Common Name	Species	Stem DBH[b] (inches)	Notes
East of 29th Avenue[c]					
42		Dead tree			Covered with ivy; recommend removal
43	X	Privet	*Ligustrum lucidum*	14”	Ivy on trunk
44	X	Privet	*Ligustrum lucidum*	10”	Ivy on trunk
45		Pittosporum	*Pittosporum* sp.	8”	Ivy on trunk
46	X	Privet	*Ligustrum lucidum*	12”	Multi-stemmed
47		Pittosporum	*Pittosporum* sp.	6”	Ivy on trunk
48	X	Privet	*Ligustrum lucidum*	11”	Ivy on trunk
49	X	Privet	*Ligustrum lucidum*	12”	Ivy on trunk
50		Pittosporum	*Pittosporum* sp.	4”	Ivy on trunk
51	X	Privet	*Ligustrum lucidum*	10”	Small, unhealthy
52		Privet	*Ligustrum lucidum*	6”	Small, unhealthy
53		Privet	*Ligustrum lucidum*	6”	Small, unhealthy
54		Privet	*Ligustrum lucidum*	5”	Small, unhealthy
55		Privet	*Ligustrum lucidum*	4”	Small, unhealthy
56		Privet	*Ligustrum lucidum*	5”	Small, unhealthy
57		Privet	*Ligustrum lucidum*	5”	Small, unhealthy
58		Privet	*Ligustrum lucidum*	5”	Small, unhealthy
59		Privet	*Ligustrum lucidum*	4”	
60	X	Privet	*Ligustrum lucidum*	16”	
61		Privet	*Ligustrum lucidum*	8”	
62	X	Liquidambar	*Liquidambar styraciflua*	12”	
63	X	Liquidambar	*Liquidambar styraciflua*	10”	
64	X	Liquidambar	*Liquidambar styraciflua*	12”	
65	X	Liquidambar	*Liquidambar styraciflua*	16”	
66	X	Plum	*Prunus sp.*	20”	
67	X	Camphor	*Cinnamomum camphora*	24”	Two stems
68	X	Camphor	*Cinnamomum camphora*	28”	Three stems
69	X	Camphor	*Cinnamomum camphora*	20”	Two stems
70	X	Camphor	*Cinnamomum camphora*	13”	
71	X	Camphor	*Cinnamomum camphora*	14”	Two stems
72	X	Camphor	*Cinnamomum camphora*	12”	
73	X	Black Acacia	*Acacia melanoxylon*	36-40”	

SOURCE: Christopher Bowen, Arborist, 2006 (west of 29th Avenue); ESA, 2007 (east of 29th Avenue).



NOTE: ALL EXISTING TREES ARE LOCATED WITHIN THE PROJECT SITE

True North / North for purposes of document

SOURCE: MBH Architects, 2007; ESA, 2007

Figure IV.L-1
Existing Trees on or Near the Project Site

Standard Condition BIO-1b: Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

a) Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.

b) Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.

c) No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.

d) Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.

e) If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.

f) All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation,

and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

Significance after Implementation of Standard Conditions: Less than Significant

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Special-status Bird Species

Impact BIO-2: Activities associated with the construction of the proposed project could result in adverse impacts on special-status bird species. (Potentially significant)

Large trees, such as oaks, redwoods, and eucalyptus, in the vicinity of the proposed project site may support nesting special-status raptors such as Cooper's hawk, red-tailed hawk, and red-shouldered hawk, particularly when these trees are associated with riparian corridors. However, there are no trees capable of supporting nesting raptors on or within the immediate vicinity of the project site. A wide variety of trees, shrubs, and even buildings may provide nesting habitat for passerine species commonly found in relatively urban areas. Several species of birds were observed in the site vicinity during site visits, including black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), house finch, and common raven (*Corvus brachyrhynchos*). Although these are all resident species common in urban areas, their nesting activity is protected under California Fish and Game Code Section 3503. In addition Section 3513 of the Code and the Federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989) prohibit the killing, possession, or trading of migratory birds. Finally, Section 3800 of the Code prohibits the taking of non-game birds, which are defined as birds occurring naturally in California that are not game birds or fully protected species.

The potential for birds to nest onsite or in the immediate vicinity is relatively low due to the high ambient noise levels from trains and traffic. No nesting activity was observed during site visits and no nests from previous years were observed in trees onsite or nearby. However, the possibility for nesting activity to occur within the project area cannot be completely ruled out.

Construction activities associated with the proposed project that are implemented during the breeding season, including removal of trees and other nesting habitat, have the potential to result in direct mortality of special-status birds. In addition, human disturbance and construction noise have the potential to cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. Therefore, even if there is relatively low potential for nesting birds at the proposed project site, if project construction were conducted during the bird breeding season and were to produce average noise levels higher than the average ambient noise level and/or if project activities included any tree pruning or removal then construction activities could result in destruction or abandonment of bird nests, eggs, or fledglings.

The proposed project would be subject to the following standard conditions of approval. Implementation of the standard condition would reduce potential impacts to breeding birds to a less than significant level.

Standard Condition BIO-2: To the extent feasible, removal of the large trees and other vegetation suitable for nesting shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds or raptors. If the survey indicates that potential presences of nesting birds or raptors, the results would be coordinated with CDFG and suitable avoidance measures would be developed and implemented. Construction shall observe the CDFG avoidance guidelines which are a minimum 500-foot buffer zone surrounding active raptor nests and a 250-foot buffer zone surrounding nests of other birds. Buffer zones shall remain until young have fledged.

Significance after Implementation of Standard Condition: Less than Significant**.**

Special-status Bat Species

Impact BIO-3: Tree removal, building demolition, pile driving, and other proposed construction activities during the breeding season could result in impacts to special-status bat species. (Less than Significant)

A number of bat species are considered species of concern due to nationwide declines in their populations. Special-status bats that may occur in the project area include long-legged myotis, fringed myotis, long-eared myotis, yuma myotis, Townsend's big-eared bat, greater western mastiff bat, and pallid bat. Special-status bats may use crevices in buildings or exfoliating tree bark and/or hollow cavities in trees located at the project site, as well as abandoned or little used buildings on or in the immediate vicinity of the project site. In urban areas bats are most likely to be found in proximity to water bodies or open spaces, as well as in the cavity of large trees and abandoned or underutilized buildings. As none of these conditions exist on the project site, the project is determined to have a less-than-significant impact on roosting or breeding special status bats.

Mitigation: None Required.

Cumulative Impacts

Cumulative Context

The geographic context used for the assessment of cumulative biological resources impacts consists of the urban areas of Oakland generally bounded by the Oakland Estuary and Highway 880, MacArthur Boulevard, Hegenberger Road, and 14th Avenue.

Cumulative Impacts on Biological Resources

This analysis evaluates whether the impacts of the proposed project, together with the impacts of cumulative development, would result in a significant impact and, if so, whether the contribution of the proposed project to this impact would be considerable. Both conditions must apply in order for the project's cumulative impacts to rise to the level of significance.

Impact BIO-4: Construction activity resulting from the project, in conjunction with other foreseeable infill development in already heavily urbanized portions of the city, could result in impacts on special-status birds and bats. (Less than Significant)

The project vicinity is already heavily urbanized and habitat values have been reduced over time through a variety of historical and current land uses. However, the area still provides reproductive and foraging habitat for special-status birds and bats protected under a variety of legislations. Assuming concurrent implementation of the project with other reasonably foreseeable future infill projects in the vicinity, adverse cumulative effects on biological resources could include construction impacts on special-status birds and bats. However, the proposed project and other future projects in the area would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources. Additionally, new projects would be required to demonstrate that they would not have significant effects on these biological resources, although it is possible that some projects may be approved even though they would have significant, unavoidable impacts on biological resources. Impacts resulting from the proposed project are considered less than significant. Therefore, given the heavily urbanized context, the effect of the project on biological resources, in combination with other foreseeable similar projects, would likely be less than significant. Given the number of similar development projects currently in progress as well as those proposed at this time within the geographic context of this analysis, the incremental contribution of the proposed project towards cumulative impacts is not considerable and is considered to be less than significant.

Mitigation: None Required.

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M. Cultural Resources

Introduction

This section discusses existing cultural resources setting of the project site and the project vicinity, and analyzes the potential for the project to affect those resources. Cultural resources are defined as prehistoric archaeological resources, historic archaeological resources, historic architectural resources, and paleontological resources.

Setting

Prehistoric Setting

Although the project area is urbanized with a history of industrial and maritime uses since the early twentieth century, prehistorically it was biologically rich upland and beach surrounded by intertidal flats and marsh. Natural marshland biotic communities along the edges of bays and channels were the principal source of subsistence and other activities from the middle Holocene (10,000 years ago to present) until the contact period in the San Francisco Bay region. With the increasing sea levels during the early Holocene and the fill development during the past century, many coastal and riparian sites have been largely destroyed or inundated.

Efforts to reconstruct prehistoric times into broad cultural stages, e.g., Early Period and Middle Period, allows researchers to describe a wide number of sites with similar cultural patterns and components during a given period of time, thereby creating a regional chronology. This section provides a brief discussion of this chronology for the project area.

Many of the original surveys of archaeological sites in the Bay region were conducted between 1906 and 1908 by N.C. Nelson. The surveys yielded the initial documentation of nearly 425 “earth mounds and shell heaps” along the littoral zone of the Bay (Nelson, 1909). From these beginnings, the most notable sites in the Bay region were excavated scientifically, like the Emeryville shell mound (designated as “Ala-309”), the Ellis Landing Site (Cco-295) in Richmond, and the Fernandez Site (CC0-259) in Rodeo Valley (Morrato, 1984). These dense midden sites are vast accumulations of domestic debris, which have been dated as 2,310 +/- 220 years old, such as Ala-309, but other evidence from around the Bay suggests that human occupation in the region is of greater antiquity or approximately around 5000 B.C. (Jones, 1992). While many interpretations exist as to the function of the shell mounds, much of the evidence suggests that they served as sociopolitical landmarks on the cultural landscape as well as ceremonial features.

The Early Period or the so-called “Berkeley Pattern” is characterized by almost exclusive use of cobble mortars and pestles, which is often associated with a heavy reliance on acorns in the economy (Moratto, 1984). Such unusually intensive reliance on one foodstuff indicates that a shift away from the earlier reliance on a broad spectrum of dietary sources to supply demand was

needed by around 1,000 Before Present (B.P.). The Late Pleistocene/Early Holocene profusion of food availability along lakeshores and estuaries likely led to an overexploitation of the resources that resulted in population increases, which may explicate the shift toward exploiting a readily available, yet lower ranked resource like acorns or seeds (Jones, 1991). Nevertheless, given the burgeoning size of Early Period settlements, it is probable that the populations were denser and more sedentary, yet continued to exploit a diverse resource base — from woodland to grassland and marshland, to Bay shore resources throughout the San Francisco Bay Area (King, 1974). Many of the Berkeley traits diffused throughout the region and spread to the interior areas of central California during this time period.

The population increases and larger, more complex settlements that began in the late-Early Period typify the Middle Period (ca. 500 BC – AD 1000) (Arnold et al., 2004). The sociopolitical landscape also appears to become more elaborate with clear differentiations in wealth. During the Late Period (ca. AD 1000 – 1700), however, there was a decline in the new sites and the large shell mounds were abandoned. The Late Period also showed population declines and concomitant changes in resource use, likely due to depletions in some terrestrial food sources caused by humans during the Middle Period (Broughton, 1994).

Ethnographic Setting

Prior to Euro-American contact, the area of present-day Alameda County was occupied by the Ohlone (also known by their linguistic group, Costanoan). Politically, the Costanoan were organized into groups called tribelets. A tribelet was a unit of linguistic and ethnic differentiation and constituted a sovereign entity that held a defined territory and exercised control over its resources. A large area of the East Bay is located within the territory of a people that spoke Chochenyo, one of several Costanoan languages.

The Ohlone economy was based on fishing, gathering, and hunting, with the land and waters providing a diversity of resources including acorns, various seeds, salmon, deer, rabbits, insects, and quail. The acorn was the most important dietary staple of the Costanoan. The Costanoan, like many other Native American groups in the Bay Area, likely lived in conical tule thatch houses.

In 1770, the Costanoan-speaking people lived in approximately 50 separate and politically autonomous nations or tribelets, and the number of Chochenyo speakers reached 2,000, substantially more than the typical size of a tribelet, which ranged from 40 to 200 members.

During the Mission Period (1770-1835), native populations, especially along the California coast, were brought, usually by force, to the missions by the Spanish missionaries to provide labor. The missionization caused the Costanoan people to experience cataclysmic changes in almost all areas of their life, particularly a massive decline in population due to introduced diseases and declining birth rate, resulting in large part from colonization by the Spanish missionaries. Following the secularization of the missions by the Mexican government in the 1830s, most Native Americans gradually left the missions and established rancherias in the surrounding areas. Native American archaeological sites that could shed light on the Costanoan ways of life in the pre-mission era tend to be situated near the historic extent of the Bay tidal marshland.

Historic Setting

The project site is within the Rancho San Antonio land grant that was granted to Luis Maria Peralta on August 3, 1820 for his service to the Spanish government. The 43,000-acre rancho included the present-day cities of Oakland, Berkeley, Alameda, and parts of San Leandro and Piedmont. Peralta's land grant was confirmed after Mexico's independence from Spain in 1822, and the title was honored when California entered the Union by treaty in 1848. Despite the title, by the middle of the 19th century, squatters had moved in to use portions of Peralta's undeveloped land. The Gold Rush and California statehood brought miners, businessmen, lumbermen and other speculators to the area in search of opportunities. Early settlers of that period include Edson Adams, Andrew Moon, and Horace Carpentier, who squatted on 480 acres of Vicente Peralta's (one of Luis Peralta's sons) land. Adams, Moon, and Carpentier subsequently hired Jules Kellsersberger, an Austrian-educated Swiss military engineer, to plot a new city – Oakland, which was incorporated in 1852.

The city originally encompassed the area roughly bordered by the Oakland Estuary on the south, Market Street on the west, 14th Street on the north, and the Lake Merritt Channel on the east. Broadway served as the main street. The majority of the early city dwellers, numbering under one hundred, lived near the foot of Broadway in proximity to the estuary. From there, city development moved north along the street car lines of Broadway and Telegraph Avenue towards the Oakland Hills and ultimately towards East Oakland.

Once Oakland was established, newcomers began leasing or purchasing land from the Peraltas and settling in the surrounding area. Wealthy and retired individuals began moving to a region south of Clinton Basin known then as Fruit Vale, including San Francisco hardware merchant W. A. Bray, who purchased large tracts of land which extended on either side of Fruitvale Avenue, north of East 14th Street in 1859, and began to cultivate an Oak tree farm which became the center of the neighborhood (David Chavez & Associates, 1996). One of the earliest businesses in the area was started by John Turnbull, an English immigrant who established a nursery along East 14th Street. Throughout the 1860s, the wealthy continued to buy up property in the Fruitvale area, largely due to the rich soil's ability to support a variety of fruit farms and proximity to Oakland's markets.

The first trains to travel over the transcontinental railroad arrived in Oakland in 1869, and by the end of this year, the Central Pacific/Southern Pacific Railroad was running trains between Oakland and Fruitvale on tracks laid down just south of San Leandro Street (now International Boulevard). With the arrival of the railroad came tremendous growth in Oakland as well as the Fruitvale neighborhood, as many of the parcels near the railroad were quickly subdivided and developed with homes and businesses. By the early 1870s, the Oakland, Fruit Vale and Mills Seminary Railroad horse-drawn streetcars were running along East 14th Street. Once public transportation arrived in Fruitvale, many of the larger agricultural tracts of land were further subdivided for residential use. An 1878 Thompson and West map of the project area shows the project site under cultivation and entirely owned by E.M. Derby who was a large land owner in the Fruitvale area at the time, for whom Derby Street in the project area was named, (Thompson

and West, 1878). By the mid-1880s, the area's residents were still "principally retired merchants and persons raising fruit" (David Chavez & Associates, 1996). However by the 1890s, the horse-drawn railroad line had been electrified, and a train station was built at the intersection of East 14th Street and Fruitvale Avenue, from which Fruitvale's main commercial center grew.

Sanborn maps of the project site in 1911 show limited development at the site's western end between 25th and 26th Streets, comprised of a waterproof clothing manufacturer at 25th Street and have a dozen small dwellings along 26th Street, with the remainder of the site undeveloped or fallow agricultural land (Sanborn, 1911). By this time the Southern Pacific Railroad to the south of the project site had developed into a major railroad route, with five principal tracks through the area. Immediately north of the project was the smaller Western Pacific Railroad which ran along East 12th Street. In 1913, the large, Georgian Revival-style St. Joseph's Home for the Aged – Little Sisters of the Poor was completed on East 14th Street, one block northeast from the project site (OCHS, 1994).

During the 1920s and 1930s, commercial buildings began to appear along East 12th Street. By this time, Spark Stove Co., a manufacturer of gas ranges, had constructed a large factory and foundry on the project site along East 12th between 26th and 28th Streets, replacing all of the earlier commercial and residential uses which had existed in this location previously. Sanborn maps of the project site in 1951 identify Spark Stove, as well as the California Highway Commission's Equipment Yard and Warehouse (part of the current Caltrans property), as well as a number of smaller-scale commercial uses including a restaurant at the corner of East 12th Street and Derby Avenue (Sanborn, 1951). By the 1970s and 1980s, Sparks Stove had been replaced with the self storage containers and the Ace Hardware store which exists on the project site today, and a number of smaller, corrugated metal warehouse structures were added to the Caltrans property.

Regulatory Framework

State of California

The following state public resource codes and CEQA regulations apply:

- CEQA: Public Resources Code Sections 5020.1, 5024.1, 21083.2, 21084.1, et seq.; requires analysis of potential environmental impacts of proposed projects and application of feasible mitigation measures.

- Title 14, Public Resources Code, Section 5020.1 defines several terms, including the following: (f) "DPR Form 523" means the Department of Parks and Recreation Historic Resources Inventory Form; (i) "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California; (j)"local register of historical resources" means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution; (l) "National Register of Historic Places" means the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture as authorized by the National Historic

Preservation Act of 1966 (Title 16 United States Code Section 470 et seq.); (q) "substantial adverse change" means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired.

- Title 14, Public Resources Code, Section 5024.1 – establishes a California Register of Historic Places; sets forth criteria to determine significance; defines eligible properties; lists nomination procedures.

- Title 14, Public Resources Code, Section 5097.5 – any unauthorized removal or destruction of archaeological, paleontological resources on sites located on public lands is a misdemeanor.

- Title 14, Public Resources Code, Section 5097.98 – prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn; sets penalties.

- Title 14, Public Resources Code, Section 21083.2 – the lead agency determines whether a project may have a significant effect on unique archaeological resources. If a potential for damage to unique archaeological resources can be demonstrated, such resources must be avoided; if they can't be avoided, mitigation measures shall be required; discusses excavation as mitigation; discusses cost of mitigation for several types of projects; sets time frame for excavation; defines "unique and non-unique archaeological resources"; provides for mitigation of unexpected resources; sets limitation for this section.

- Title 14, Public Resources Code, Section 21084.1 – indicates that a project may have a significant effect on the environment if it causes a substantial change in the significance of a historic resource; the section further describes what constitutes a historic resource and a significant historic resource.

- *CEQA Guidelines*: Section 15064.5 – specifically addresses effects on historic and prehistoric archaeological resources, in response to problems that have arisen in the application of CEQA to these resources.

- Title 14, Penal Code, Section 622.5 – anyone who damages an item of archaeological or historic interest is guilty of a misdemeanor.

- *CEQA Guidelines*: California Code of Regulations, Sections 15000, et seq., Appendix G (j), specifically defines a potentially significant environment effect as occurring when the Proposed Project will "…disrupt or adversely affect…an archeological site, except as part of a scientific study."

- Public Resources Code, Section 5097.5. Any unauthorized removal of archaeological resources on sites located on public lands is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority or public corporation, or any agency thereof.

CEQA requires that public or private projects financed or approved by public agencies must assess the effects of the project on unique or significant historical resources. Historical resources are defined as buildings, sites, structures, objects or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance (Public Resources Code 21083.2; California Code of Regulations 15064.5).

Archaeological resources that are not "historical resources" according to the above definitions may be "unique archaeological resources" as defined in Public Resources Code section 21083.2, which also generally provides that "nonunique archaeological resources" do not receive any protection under CEQA. If an archaeological resource is neither a "unique archaeological" nor an "historical resource," the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the EIR, but they need not be considered further in the CEQA process.

CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed.

Therefore, prior to the assessment of effects or the development of mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify potential historical resources
- Evaluate the eligibility of historical resources
- Evaluate the effects of a project on all eligible historical resources

City of Oakland

The Oakland Cultural Heritage Survey (OCHS) uses a five-tier rating system for individual properties, ranging from "A" (highest importance), "B" (major importance), "C" (secondary importance), "D" (minor importance, and "E" (of no particular interest). This designation is termed the Individual Property Rating of a building and is based on the following criteria:

> Visual Quality/Design: Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.
>
> History/Association: Association of person or organization, the importance of any event, association with patterns, and the age of the building.
>
> Context: Continuity and familiarity of the building within the district.
>
> Integrity and Reversibility: Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Impacts and Mitigation Measures

Significance Criteria

The project would have a significant impact on the environment if it would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of an historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historical Resources, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5;

3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

4. Disturb any human remains, including those interred outside of formal cemeteries.

Methodology

Archival Methods

A cultural resources records search of all pertinent survey and site data was conducted at the Northwest Information Center, Sonoma State University by ARS (2006). The records were accessed by utilizing the Oakland East USGS 7.5-minute quadrangle map and included the Proposed Project along with a quarter-mile buffer (the study area). The records search included a review of the *Directory of Properties in the Historic Property Data File for Alameda County* for information on sites of recognized historical significance within the *National Register of Historic Places*, the *California Register of Historic Resources*, the *California Inventory of Historic Resources* (1976), the *California Historical Landmarks* (1996), and the *California Points of Historical Interest* (1992).

On February 10, 2005, ESA contacted the Native American Heritage Commission (NAHC) and requested a database search for sacred lands or other cultural properties of significance to local Native American peoples. On February 16, 2005, the NAHC provided a list of Native American organizations that should be contacted concerning locations of importance to Native Americans in the project area. ESA sent a letter to each organization on the NAHC list, providing information

about the proposed project and requesting information on locations of importance to Native Americans. No responses have been received to date.

Archival Results

The results of the archival research indicated that no prehistoric resources have been recorded within the footprint of the proposed development (NWIC, 2005). One prehistoric site (CA-ALA-315) has been recorded within a half-mile of the project area, and a total of seven cultural resource studies have been conducted within a half-mile radius. No substantial information exists regarding ALA-315 and it has likely been destroyed by over a century of development in the area (Pilling, 1910). None of the previous studies identified any historical resources or unique archaeological resources. The *Archaeological Resources Investigations for the Fruitvale BART Transit Village Project* (Hupman, 1996) recommended that no additional measures to identify prehistoric remains were warranted given the lack of specific information on cultural resource sites within the BART Transit Village area and the heavy development currently built in the area.

The results of the archival research indicated that no historic resources have been recorded on the project site. None of the buildings on the project site are listed in the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHR), nor are any listed as a City of Oakland Designated or Potential Historic Property. No Oakland Preservation Districts or any buildings on Oakland's Preservation Study List were identified on the project site.

Buildings recorded by the Oakland Cultural Heritage Survey (OCHS) as part of a citywide inventory of unreinforced masonry (URM) buildings in 1994-1995 (represents the most comprehensive inventory of the project area (City of Oakland, 1995). The OCHS Survey recorded two properties within the project site boundaries:

- 3001-15 East 12th St. Watz (Charles) & Co. Fuel & Express Yard (currently vacant): Built 1939. This two-story, utilitarian warehouse has a flat roof with a stepped parapet, exterior walls of brick and hollow clay tile, and interior wood framing. The building was remodeled in 1951, and there are visible alterations on the front façade. OCHS gave this building a local rating of D3 (minor importance, not located in a historic district), and an NRHP rating of 6Z1 (ineligible for listing on the National Register through survey evaluation).

- 3027-31 East 12th St. Reminder Clock Co. / Bronzini Fruit Store (currently H/H Auto Collision): Originally built in 1917. This single-story, early 20th Century utilitarian building has a rectangular plan, a straight parapet, and exterior walls of stucco over hollow clay tile. Windows are metal sash, with visible alterations, due to a remodeling in 1957. OCHS gave this building a local rating of Ed3 (of no particular importance, not located in a historic district), and an NRHP rating of 6Z1 (ineligible for listing on the National Register through survey evaluation).The remaining buildings and structures on the project site were evaluated as part of an earlier "windshield survey" conducted by the Oakland Cultural Heritage Survey in 1986 (City of Oakland, 1986). These commercial

warehouse buildings consisting of steel frames on concrete foundations warehouses OCHS ratings of F (less than 45 years old or modernized), such as the retail store at 2783 East 12th Street (a remodeled, former salvage furnace warehouse) and the Ace Hardware building (a remodeled former building materials warehouse) at the end of 29th Avenue. The Caltrans buildings along Derby Avenue received no historical rating, and were therefore presumed to be of little or no local historical interest at the time of the survey. The structure at 2550 East 12th Street (Ronneberg-Lind & Kelly Auto Paint, built in 1928) is a recorded property located opposite East 12th Street from the project site and outside the project site boundary. This building was determined ineligible for the National Register and rated D3 (D, minor importance) through survey evaluation, and would not be considered a historic resource in the project vicinity.

The only recorded historic resource in the project vicinity is the 1913 St. Joseph's Home for the Aged – Little Sisters of the Poor located at 2647 East 14th Street (OCHS, 1994). This building is a City of Oakland Landmark with an OCHS rating of "A3" (highest importance). It is about 300 feet northeast and opposite the elevated BART tracks and East 12th Street from the project site.

Field Survey Results

A reconnaissance-level pedestrian survey was conducted by ESA archaeologist, Dean Martorana, RPA for the Initial Study prepared in 2005. Given the high level of urbanization in the project area, no substantive examination of the native surface was possible.

A supplemental reconnaissance-level survey of the project site buildings was completed by ESA in October, 2006, as part of this EIR to provide an update to the earlier survey efforts and to determine if any substantial changes to the project site buildings had occurred since the area was last surveyed. The results of the ESA reconnaissance survey indicate that the only substantial changes to the area since 1986 have been the addition of the self-storage containers in the center of the site. No substantial changes have occurred to the buildings evaluated in the 1994 URM survey for 3001-15 East 12th St. and 3027-31 East 12th St., or to the buildings in the 1986 survey, although all buildings appear generally more dilapidated. While some of the corrugated metal storage sheds on the Caltrans property may have passed the 50-year age threshold since the 1986 survey, no new historical information has come to light that would change the original OCHS ratings of F (or no rating). As such, the ratings given to the project site buildings in 1986 and 1994 would be appropriate.

In general, given the archival research and previous and current survey efforts, the buildings on the project site do not appear to exhibit sufficient historical or architectural significance to qualify as federal, state, or local historic resources, and would therefore not be considered historic resources under CEQA Guidelines Section 15064.5.

Impacts

Archaeological Resources

Impact CUL-1: The project could adversely affect unknown or undocumented historical resources or unique archaeological resources. (Potentially Significant)

No prehistoric sites have been recorded within the project area and no specific sensitivities can be substantiated without substantial removal of buildings, pavement and soils in the area. The area has been subject to significant alteration, including railroad development for over 100-years, which has likely resulted in the destruction of any surface evidence of prehistoric activities (the top 15-20 feet of soils are alluvial and artificial soils that have layered over time above the native topography that existed at the time of primary occupation). Sausal Creek was located approximately a quarter-mile from the project area; however, the landscape has been substantially altered (indeed, the creek itself is now an underground culvert system). Given this proximity to a watercourse, there is a possibility that previously unknown archaeological sites, such as shell midden soils, stone artifacts, and historic trash scatters, may occur at the project site. Inadvertent damage to significant buried archaeological deposits during construction would be a significant impact.

Standard Condition CUL-1a: Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out.

Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the

find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist would recommend appropriate analysis and treatment, and would prepare a report on the findings for submittal to the Northwest Information Center.

Standard Condition CUL-1b: In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

Significance after Implementation of Standard Condition: Less than Significant.

Paleontological Resources

Impact CUL-2: The project would adversely affect paleontological resources. (Potentially Significant)

The proposed project sites are located in alluvial flats and historical flood plain soils, which tend to be considered of low potential for harboring paleontologic resources that would qualify as significant—in terms of scientific importance—for the purposes of CEQA (CEQA Guidelines 15064.5[a][3]). The project area contains recent (Holocene) Basin (Qhb) and Alluvial (Qhaf) deposits and some Artificial fill deposits (Helley & Graymer 1997). These types of sediments would not likely yield significant paleontologic remains because they are surface deposits that are not considered fossil-bearing rock units.

Because significant fossil discoveries can be made even in areas designated as having a low potential for such resources and could result from excavation activities related to the proposed project. Excavation activities can have a deleterious effect on such resources. This impact would

be reduced to a less-than-significant level with the incorporation of the following standard condition.

> **Standard Condition CUL-2: In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.**

Significance after Implementation of Standard Condition: Less than Significant.

Historic Resources

Impact CUL-3: The project would have an adverse impact to architectural resources or built historical resources. (Less than Significant)

The proposed development would remove all of the extant buildings on the project site. As none of the project site building qualify as federal, state, or local historical resource due to a lack of historical and architectural significance, they would not be considered historic resources under Section 15065.4 of the CEQA Guidelines. The proposed project would additionally have no direct or indirect impacts on historic resources in the project vicinity, including the 1913 St. Joseph's Home for the Aged – Little Sisters of the Poor located at 2647 East 14th Street; a City of Oakland Landmark, given the distance of this property from the project site as well as the substantial intervening development (including elevated BART tracks). Therefore, their proposed project and demolition would be a less-than-significant impact to historic resources. No mitigation required.

Mitigation: None Required.

Cumulative Impacts

Impact CUL-4: The proposed project could contribute to cumulative impacts on cultural resources. (Less than Significant)

As discussed above, no cultural resources have been identified within the project area. This section includes several mitigation measures to reduce potential impacts to cultural resources during construction of the proposed project (i.e., accidental damage or destruction of previously unknown archaeological sites) to a less than significant level. The project region has undergone significant past removal of prehistoric and historic-era resources primarily due to urban development. Thus, there is the potential for future development project in the vicinity to disturb undeveloped or merely tilled landscapes that may contain known or unknown cultural resources. However, future projects with potentially significant impacts to cultural resources would be required to comply with federal, state, and local regulations and ordinances protecting cultural resources through implementation of similar mitigation measures during construction. Therefore, the potential construction impacts of the project in combination with other projects in the area would not contribute to a cumulatively significant impact on cultural resources.

Mitigation: None Required.

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Maps

City of Oakland, Oakland Cultural Heritage Survey, OCHS Reconnaissance Survey Maps, *East 14th Street and Fruitvale Avenue* (Annotated copies of Sanborn Fire Insurance Co. Maps), May 19, 1986.

Sanborn Fire Insurance Company (Sanborn), 1903, 1911, 1951

Thompson and West, Oakland, Map No. Eight, 1878

N. Other Environmental Topics

This section addresses environmental topics under CEQA for which the project would have no impact, and thus are not analyzed in this EIR.

Agricultural Resources

The project would not result in impacts to agricultural resources. (No Impact)

As discussed in Section IV.A (Land Use, Plans, and Policies), the Oakland General Plan Land User Map designates various residential, institutional, and commercial land use classifications on and surrounding with project site. The project area, as with the majority of developed land in the City of Oakland, is designated by the California Department of Conservation's Farmland Mapping and Monitoring Program as Urban and Built-Up Land (Department of Conservation, 1998). Therefore, specifically, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; would not conflict with existing zoning for agricultural use, or a Williamson Act contract; and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use. The project would have no impact on agricultural resources.

Mineral Resources

The project would not result in impacts on mineral resources. (No Impact)

According to the City's Open Space, Recreation, and Conservation Element of the General Plan, the project is located in a developed urban area that has no known existing mineral resources.

The California Geological Survey (CGS) has classified lands within the San Francisco Bay Region into Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1974 (Stinson et al., 1982). The project area is mapped by the CDMG as MRZ-1, an area where adequate information indicates a low likelihood of significant mineral resources (Stinson, et al., 1982). The intent of designating significant deposits is to identify areas where mineral extraction could occur prior to development. Therefore, the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The project would have no impact on mineral resources.

Mitigation: None Required.

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CHAPTER V
Alternatives

A. Criteria for Selecting Alternatives

CEQA requires that the EIR compare the effects of a "reasonable range of alternatives" to the effects of the project. The alternatives selected for comparison would attain most of the basic objectives of the project and avoid or substantially lessen one or more significant effects of the project (CEQA Guidelines Section 15126.6). The "range of alternatives" is governed by the "rule of reason" which requires the EIR to set forth only those alternatives necessary to permit an informed and reasoned choice by the decision-making body and informed public participation (CEQA Guidelines Section 15126.6[f]). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors.

The alternatives addressed in this EIR were selected based on the following factors:

1. The extent to which the alternative would accomplish most of the basic objectives of the project (identified in Chapter III, Project Description);

2. The extent to which the alternative would avoid or lessen any of the identified potentially significant environmental effects of the project (identified throughout Chapter IV, Environmental Setting, Impacts, and Mitigation Measures);

3. The feasibility of the alternative, taking into account site suitability, availability of infrastructure, property control (ownership), and consistency with applicable plans and regulatory limitations;

4. The extent to which an alternative contributes to a "reasonable range" of alternatives necessary to permit a reasoned choice; and

5. The requirement of the CEQA Guidelines to consider a no project alternative and to identify an environmentally superior alternative in addition to the no-project alternative (CEQA Guidelines, Section 15126.6[e]).

Potentially Significant Impacts Resulting with the Project

To identify alternatives that would avoid or lessen any of the potentially significant environmental effects of the project, as required by CEQA, the potentially significant impacts of the project must be considered.

The analysis in Chapter IV of this EIR identifies the following significant and unavoidable impacts (i.e., impacts for which no feasible mitigation was identified to reduce the impact to less than significant, or impact for which feasibility mitigation is identified by which is not within the City of Oakland's purview to implement) that would result with the project:

- **Transportation and Circulation**

  Impact TRANS-2a, TRANS-3b, and TRANS-4c: The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the *East 9th Street at I-880 Northbound Off-Ramp intersection* during both peak hours. (Baseline plus Project, 2010 plus Project, and 2025 Cumulative Conditions) [Less than Significant with Mitigation Measure TRANS-2a, but requires Caltrans approval and therefore are conservatively considered Significant and Unavoidable.]

  Impact TRANS-4d: *The Clement Avenue at Park Street intersection* would operate at LOS E with and without the addition of project traffic. However, the addition of project traffic causes the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. (2025 Cumulative) [Less than Significant with Mitigation Measure TRANS-4d, but requires City of Alameda approval and therefore is conservatively considered Significant and Unavoidable.]

  Impact TRANS-4e: The *Central Avenue at Park Street intersection* would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour with and without the addition of project traffic. During the a.m. peak hour, the addition of project traffic would not cause the average delay to increase by over four seconds. However, in the p.m. peak hour, the addition of project traffic would cause the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. (2025 Cumulative) [Also Significant and Unavoidable.]

The analysis also identifies potentially significant impacts for the following environmental topics, and feasible mitigation measures and/or standard conditions of approval are identified to reduce the impact of each to less than significant:

- **Transportation and Circulation** (construction circulation; traffic, bicycle/pedestrian safety and facilities)
- **Air Quality** (Construction-period / Emissions and Dust)
- **Noise** (Construction-period; vibration, operational [traffic]; compatible land use)
- **Hazardous Materials** (Construction-period; public exposure and risk; accidental upset)
- **Water Quality** (Storm runoff, non-point pollution; erosion, and groundwater quality.

- **Utilities and Service Systems** (Construction impacts for potentially-expanded wastewater facilities)
- **Biological Resources** (Construction-period / special-status bird species)
- **Cultural Resources** (Construction-period archaeological/paleontological resources)

The specific impact for each is stated in **Table V-7** at the end of this chapter. The alternatives selected for comparison in this chapter were selected to reduce the above environmental effects although the EIR analysis finds that these impacts are less than significant under CEQA. The environmental effects if the project and the relative effects of each alternative are summarized in **Table V-7** at the end of this chapter. The comparative technical data related to traffic effects for each of the alternatives is provided in **Appendix E**.

CEQA-Required "No Project" Alternative

Consideration of a "no project" alternative is required under CEQA. Section 15126.6(e) of the CEQA Guidelines states: "The purpose of describing and analyzing a no project alternative is to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." It also states that the "no project" alternative is "not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline . . ." (Section 15126.6[e]).

Pursuant to the "existing conditions" scenario, existing or recent conditions on the project site would continue, taking into account reasonably anticipated change that could occur, such as new vacant buildings being reoccupied with tenants and uses similar to existing or recent uses on the site, or continued routine maintenance of buildings and property.

B. Alternatives Considered but not Analyzed in Detail

During the process to identify feasible alternatives to address in this EIR, the project sponsor considered a scenario in which the proposed project would be developed at an alternative location within the San Antonio /Fruitvale area, specifically near the Fruitvale BART Station. An offsite alternative would evaluate whether developing the project on another site nearby, consistent with the project sponsor's objectives, would avoid or substantially reduce the significant and unavoidable traffic impacts that would occur with the project. However, it was determined that an off-site alternative would be infeasible due to a number of reasons.

First, diligent efforts conducted for purposes of this EIR identified no potential alternative project site nearby and of comparable size (nearly 10 acres) that would be readily available for the project sponsor to acquire.

Second, even if such a property was located, development of an off-site alternative is not considered feasible because the acquisition and development of real estate in the Bay Area is not routine business practice for the project sponsor. Pacific Thomas Capital's interest in the proposed project site is based on its long-standing ties with the surrounding community, its ownership of a substantial portion of the site (which has been assembled over several years, and on which it currently operates a business), and the potential for it to secure control of adjacent land within the proposed project boundaries (i.e., the Caltrans property), with assistance from the Oakland Redevelopment Agency. The project site has been historically owned by one family who seeks to redevelop the property at a highest and best use as it intends to discontinue the self-storage business at this location. Development at an off-site location would not align with the project sponsor's primary objective of developing the site and other objectives related to developing high-density mixed use development near transit in support of the economic renaissance of the San Antonio/Fruitvale area.

Third, the significant and unavoidable impacts that are identified with the project (traffic impacts listed above, under *Potentially Significant Impacts Resulting with the Project*) are not site specific and therefore, while they may be avoided if the project was developed at an alternative site, the impacts probably would occur elsewhere in the San Antonio /Fruitvale area, including, in particular, along the International Boulevard corridor, the I-880 corridor, or within the City of Alameda. In summary, for the reasons discussed above, an off-site alternative is not considered to be a feasible alternative due to lack of alternative sites, the project sponsor's business practices and desire to develop this site, and the likelihood that the project's significant impacts would not be avoided or reduced at alternative location.

C. Alternatives Selected for Consideration

With consideration given to the selection criteria identified in Section A, above, the City selected the following reasonable range of project alternatives to be addressed in this EIR at a sufficient level of detail required for a meaningful comparative analysis:

Alternative 1a: No Project / Continuation of Recent/Existing Uses and Buildings

Alternative 1b: Redevelopment Consistent with General Plan

Alternative 2: Partial Site / Development Occurs Only on Portion of the Site Controlled by the Project Sponsor

Alternative 3: Light Industrial / Live Work

Each alternative is discussed in Section D below and summarized in the following table:

TABLE V-1
COMPARISON OF SELECTED ALTERNATIVES AND PROPOSED PROJECT

Alternative	No. Stories	Approximate Building Height (Ft.) To Roof	Residential Units	No. Residential Parking Spaces	Parking Spaces Per Unit	Non-Residential Uses (Sf)	Non-Residential Parking Spaces Provided
Proposed Project	3 to 16	30 to 162	810 units	1,056	1.32	30,950 SF	65
1a: No Project/ Continuation of Recent/ Existing Uses and Buildings	1 to 2	15 to 20	-	-	-	158,492 SF commercial / storage	Approx. 12
1b: Redevelopment Consistent with General Plan	3 to 16	30 to 162	390 units	519	1.33	72,000 SF	95
2: Partial Site / Development Occurs Only on Portion of the Site Controlled by the Project Sponsor	3 to 12	30 to 122	538 units	699	1.29	39,060 SF	67
3: Light Industrial / Live-Work	1-3	15 to 30	18 live-work	27	1.50	145,000 SF	97

TABLE V-2
DETAILED SUMMARY OF PROPOSED PROJECT

Site No.	No. Stories	Approximate Building Height (Ft.) to roof	Residential Units	No. Residential Parking Spaces	Parking Spaces Per Unit	Non-Residential Uses (SF)	Non-Residential Parking Spaces Provided
1	3 to 12	30 to 122	180	220	1.20	-	-
2	3 to 10	30 to 102	130	143	1.10	2,900 commercial	0
3	3 to 7	30 to 72	100	144	1.54	2,900 commercial	0
4	3 to 8	30 to 82	100	138	1.38	7,110 commercial 5,000 educational center	24
5	3 to 15	30 to 152	145	205	1.40	13,040 commercial	41
6	3 to 16	30 to 162	155	206	1.32		
TOTAL	N/A	N/A	810 units	1,056	1.32	30,950 SF	65

D. Description and Analysis of Alternatives

As permitted by CEQA, the potentially significant effects of the alternatives are discussed in less detail than the effects of the project (CEQA Guidelines Section 15126.6[d]). However, the alternatives analysis is conducted at a sufficient level of detail to provide the public, other public agencies, and City decision-makers adequate information to fully evaluate the alternatives and for the City to approve any of the alternatives without further environmental review..

Unless indicated otherwise, as with the analysis throughout this EIR, the potential impacts associated with the any of the alternatives are stated as levels of significance that would result *after* implementation of mitigation measures and/or standard conditions identified in Chapter IV, to the extent that any or the same mitigation measures and/or standard conditions would apply appropriately to reduce the impact identified for the alternative. Overall, the analysis seeks to compare the alternatives' impacts to the project's impacts. Cumulative impacts for year 2025 are also identified.

Alternative 1a: No Project / Continuation of Existing/Recent Uses and Buildings

Description

In this No Project / Continuation of Existing/Recent Uses and Buildings Alternative (referred to throughout as "Alternative 1a"), the project sponsor would continue to operate the commercial self-storage facility and would find tenants for existing empty commercial buildings. These buildings could be used by a range of industrial and commercial use to the extent that they would meet all requirements of the Oakland Zoning Regulations (considered in concert with the General Plan Guidelines). All existing land uses on the site would remain (or be replaced with similar uses), thus the site would continue to be used for industrial (Caltrans) and commercial activities. Even as new tenants might occupy the site, existing buildings would not change substantially through additions, demolitions, or other alterations, particularly changes that would result in larger facilities. **Table V-2** summarizes Alternative 1a, which reflects existing development on the project site.

Because no change would occur to the existing General Plan land use classifications or zoning designations on the project site under this alternative, the General Plan classification and zoning would continue to be inconsistent within the *Mixed Housing Type Residential* area in the central portion of the project site. However, as part of the City's overall zoning update process, this area would be brought into consistency, either through rezoning or amendment to the General Plan land use map, which particular consideration given to the City's current policy consideration of industrial land conversion to residential use.

TABLE V-3
DETAILED SUMMARY OF ALTERNATIVE 1A – NO PROJECT / CONTINUATION OF RECENT/EXISTING USES AND BUILDINGS

Site No.	No. Stories	Approximate Building Height (Ft.) to roof	Residential Units	No. Residential Parking Spaces	Parking Spaces Per Unit	Non-Residential Uses (SF)	Non-Residential Parking Spaces Provided
1 – 4 (West of 29th Ave.)	1 to 2	15 to 20	–	–	–	103,461 commercial self-storage 17,852 hardware store/commercial building	12
5 – 6 (East of 29th Ave.)	1 to 2	15 to 20	–	–	–	9,179 automotive repair / commercial retail 28,000 Caltrans maintenance facility and yard	0
TOTAL	N/A	N/A	–	–	–	158,492 SF commercial / storage	12

Impacts (Alternative 1a)

Land Use, Plans and Policies

Existing buildings and land uses would continue to be used for commercial and industrial purposes. The project sponsor could, under existing Zoning Regulations, and to the extent permitted under the General Plan Guidelines, lease facilities to businesses as diverse as administrative offices, general food sales, general retail sales, general wholesale sales, automotive servicing (with limitations), automotive fee parking, and general manufacturing (except electroplating activities). Conditionally permitted uses could include community education, but could also include fast-food restaurants; laundries; automotive sales, rental and delivery; and limited amounts of hazardous waste storage. However, given the floorplates of existing buildings, future businesses would likely be similar to existing or recent businesses on the site, such as a hardware story, a cell phone business, and a small lumberyard.

As discussed above, under Alternative 1a, the existing M-30 General Industrial Zone designation on the project site would remain in conflict with the Mixed Housing Type General Plan land use classification that applies to a portion of the site. While this situation is not a significant environmental impact, the proposed Rezoning that would facilitate development of new, high-density residential mixed use development would not occur at this time. Further, while a lower-density residential project could currently be developed on a portion or the site (without the proposed Rezoning or General Plan Amendment), the parameters of Alternative 1a would preclude this substantial change in use (see Alternative 1b, below).

Visual Quality and Shadow

With Alternative 1a, the existing appearance of the project site would not change substantially. Therefore existing views across the project site and the appearance of the project site, which is highly visible from adjacent major thoroughfares, including 29th Avenue and East 12th Street and from passing BART train passengers looking southward and down at the site would not change or improve. Existing shadows also would not change, since the existing buildings would not be demolished. Thus, Alternative 1a would maintain existing conditions related to general appearance and not result in beneficial improvements, such as new, well-designed development, attractive ground-floor commercial spaces, and landscaping and pedestrian amenities on and near the site.

Transportation, Circulation, and Parking

The following area intersections currently operate at poor conditions and would continue to operate poorly under Alternative 1a since mitigations that would be implemented with development of the project (pending approval of Caltrans and the City of Alameda) would not occur with continuation of existing conditions on the site: East 12th Street and 29th Avenue; East 7th Street and Kennedy Avenue (PM peak-hour only); East 9th Street and I-880 northbound on-ramp; and Clement Avenue and Park Street. No changes would occur to the development on the site to affect circulation on- or off-site.

Air Quality

No construction or changes to the project site would occur with Alternative 1a, and replacement uses would be similar to existing baseline conditions. Therefore, air quality conditions would be comparable to what exists today (and as they are forecast to be in the future without development of the site).

Noise

No construction or changes to the project site would likely occur with Alternative 1a, and replacement uses would be similar to existing conditions. Therefore, the noise environment would be comparable to what exists today (and as forecast for future conditions), and less than significant impacts (with standard conditions) related to construction noise would be avoided.

Hazards and Hazardous Materials

Although no building development or demolition would occur with Alternative 1a, contaminated soils, groundwater, underground and above-ground storage tanks would likely continue to exist on portions of the project site since no remedial work would occur as part of new development. Similarly, while no alterations or demolition of existing buildings would occur, existing structures that could contain hazardous materials (e.g., lead-based paint, asbestos) would remain in place. As a result, these conditions would not be abated, but also would not be released and exposed to the public.

Public Services and Recreation

No new development or significantly different land uses would occur under Alternative 1a. Thus, the site would not generate new population or employees that would affect existing demand for public services and recreation facilities.

Utilities and Service Systems

No new development or significantly different land uses would occur on the project site under Alternative 1a. Therefore, when compared to the proposed project, the alternative would not result in increased demand for public water, wastewater (sanitary sewer), stormwater facilities, solid waste disposal, or energy. In particular, the project would not demolish existing structures, generating construction waste.

Hydrology and Water Quality

No new development or significantly different land uses would occur on the project site under Alternative 1a. Therefore, existing, less-than-optimal conditions on portions of the project site would continue to occur under this alternative. These conditions include expansive paved and unpaved areas east of 29th Avenue and uncontrolled stormwater runoff that may current enter storm drains via contaminated soils. Although the analysis conducted for this EIR does not include an evaluation of existing on-site operations for compliance with any applicable regulatory standards or requirements regarding water quality, it is reasonable to assume that the existing operations and conditions on portions of the site (e.g., amount of paving, exposed soil, lack of measures to detain and/or treat runoff) could have adverse effects to water quality, stormwater runoff, and flooding. Implementation of the project would include adherence to standard conditions and regulations that would improve existing conditions on the site. As a result Alternative 1a is considered to have a greater adverse impact regarding post-construction water quality than would occur with the proposed project.

Geology, Soils, and Seismicity

No new development or significantly different land uses would occur on the project site under Alternative 1a. However, the existing structures would be subject to the same existing seismic hazards that affect the entire vicinity. Although there is existing daytime population on the site, the potential effect of exposing people and structures to seismic risk would be reduced since no new population or development would result. Overall, this alternative would result in the same or reduced less-than-significant impacts to geology and seismicity compared to the proposed project.

Population, Housing, Employment

Alternative 1a would not introduce new population or housing on the site, and could potentially facilitate a minor change to onsite employment if new tenants occupy the site. Therefore, Alternative 1a would not affect population, housing, or employment.

Biological Resources

No demolition and new construction would occur with Alternative 1a. Thus, there would be no potential effect to wildlife or plant species. This alternative would avoid the less-than-significant impacts to biological resources identified for the project.

Cultural Resources

No demolition and new construction would occur with Alternative 1a. Thus, there would be no potential effect to archaeological or paleontological resources. Moreover, there would be no impact to historic resources as none, as defined for CEQA, exist on or in close enough proximity to be adversely affected by the project. This alternative would avoid the cultural resources impacts identified for the project.

Alternative 1b: Redevelopment Consistent with Existing General Plan

Description

The Redevelopment Consistent with Existing General Plan (referred to throughout this section as "Alternative 1b") is included in the EIR to provide a comparison of the proposed project to an alternative that could reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans (CEQA 15126.6[3][a]).

As shown in **Table V-4**, Alternative 1b, the developer would redevelop the site in accordance with the three existing General Plan land use classifications for the site: *Business Mix, Mixed Housing Type Residential,* and *Regional Commercial*. No General Plan Amendment would be required. This alternative would develop up to 390 residential units, approximately 23,000 square feet of ground-floor commercial/retail use, a 5,000 square-foot education space, and approximately 40,000 square feet of light industrial use. The light industrial uses would occur on the westernmost one-third of the site only (Sites I and II).

Residential and Commercial/Retail

Residential use is allowed in the *Mixed Housing Type Residential* and *Regional Commercial* classifications that currently apply to portions of the project site. The 390 residential units, 23,000 total square feet of ground-floor commercial/retail space, and a 5,000 square-foot educational space would occur in these two areas of the site - the easternmost 6.6 acres (approximately two-thirds of the project site, Sites III through VI) that border 29th Avenue (including parcels that the project sponsor does not currently control east of 29th Avenue) (see **Figure IV.A-2** in Section IV.A, *Land Use, Plans, and Policies,* which maps the existing land use classifications).

TABLE V-4
DETAILED SUMMARY OF ALTERNATIVE 1B – REDEVELOPMENT CONSISTENT WITH GENERAL PLAN

Site No.	No. Stories	Approximate Building Height (Ft.) to roof	Residential Units	No. Residential Parking Spaces	Parking Spaces Per Unit	Non-Residential Uses (SF)	Non-Residential Parking Spaces Provided
1 - 2	1	15 to 20	–	–	–	45,000 light industrial	30
3 - 4	2 to 3	20 to 30	18 townhomes 72-unit apartment building	108	1.20	3,000 commercial 7,000 commercial 5,000 educational center	24
5	3 to 15	30 to 152	145 units	205	1.40	13,000 commercial	41
6	3 to 16	30 to 162	155 units	206	1.32	-	-
TOTAL	N/A	N/A	390 units	519	1.33	72,000 SF	95

Approximately 300 units would be developed on the 3.6 acres east of 29th Avenue on Sites V and VI, which are in the *Regional Commercial* area. Development would occur in two 13- to 14-story buildings with 13,000 square feet of commercial/retail and parking uses on the ground floor. The *Regional Commercial* classification allows a maximum residential density of 125 units per gross acre; the residential density for Alternative 1b would be approximately 100 units per acre. The residential development in this alternative is primarily the same as what the project proposes within this area of the project site.

Approximately 90 units would be developed on the 3.0 acres west of 29th Avenue on Sites III and IV, which are the *Mixed Housing Type Residential* area. The configuration of development would be similar to what the project proposes for this area. Approximately 18 townhomes would front East 12 th Street, with a single, a 4-story multifamily building containing 72 units. Ground floor uses would include 10,000 square feet of commercial/retail space (two spaces, approximately 3,000 and 7,000 square feet each), a 5,000 square-foot educational center, and parking. The proposed height of the building would allow for ample ground-level open space or outdoor areas for commercial retails spaces on the site as well. The residential density of this alterative would be the maximum allowed by the *Mixed Housing Type Residential* classification - 30 units per gross acre.

Light Industrial

According to the City's *Guidelines for Determining Project Conformity with the General Plan and Zoning Regulations* (General Plan Guidelines), residential use is not permitted (i.e., "clearly does not conform") in the *Business Mix* classification. Thus, approximately 45,000 square feet of light industrial use would occur in this area of the site – the westernmost 3.0 acres (Sites I and II). Development would occur in a new, one-story structure. Possible "light manufacturing activities" that could occur include manufacturing and/or processing of "articles of merchandise" involving materials specific in Section 17.10.560 of the Oakland Planning Code and would be subject to

operational performance standards to ensure compatibility with nearby residential uses, pursuant to Section 17.70.090. The light industrial use would be immediately adjacent to residential uses.

As indicated in **Table V-4** above, Alternative 1b proposes 420 fewer units, nearly 2,950 fewer square feet of commercial/retail area, and approximately 45,000 square feet of new industrial area – a land use not included in the proposed project. To compare by development site, this alternative proposes the same development as proposed by the project for Sites V and VI; approximately 110 fewer units but the same commercial/retail and educational area as proposed for Sites III and IV; and 45,000 square feet of light industrial space instead of proposed project's 310 units and 2,900 square feet of commercial/retail for Sites I and II.

Impacts (Alternative 1b)

Land Use, Plans and Policies

No General Plan Amendment would occur under Alternative 1b; three existing General Plan land use classifications on the site would remain. As a result, light industrial use would occur in the existing *Business Mix* area, and residential and commercial/retail uses would occur in the *Mixed Housing Type Residential* and *Regional Commercial* areas and be similar in layout and uses as the proposed project for these areas. As a result, development would vary widely across the site, which could restrict the project sponsor's ability to develop the project as planned unit development (PUD).

The lowest density residential (a multifamily building and townhomes) occurring between the high-rise residential east of 29th Avenue and the 45,000 square feet of light industrial at the western end of the site. This lower density residential development would occur at the southwest corner of East 12th Street and 29th Avenue (Sites III and IV). Introducing this lower density (72 units in a four-story building, and 18 townhomes fronting East 12th Street would support to a much lesser extent General Plan policies that encourage high-density development along major corridors, particularly near transit. The high-density residential towers, townhomes, and ground-floor commercial uses east of 29th Avenue would be the same as proposed by the Gateway Community Development Project.

The 45,000 square feet of light industrial space that would occur would not substantially conflict with the adjacent OHA property maintenance building and yard or industrial, office, school, or residential uses nearby because this alternative assumes (see *Description*, above) that only uses consistent with the "light manufacturing activities" defined in the Oakland Planning Code (Section 17.10.560) would occur (considering also the underlying M-30 General Industrial Zone and the City's General Plan Guidelines). Such uses would be further limited by the operational performance standards that address compatibility with nearby residential uses (Oakland Planning Code Section 17.10.560). Moreover, it would likely support *Coliseum Redevelopment Plan* goals regarding employment growth and commercial/light industrial expansion to a greater extent than the proposed project. Conversely, while locating new light industrial use in this location would not result in a significant land use conflict, it may not fully support General Plan policies and that

seek active commercial and residential development along major corridors, particularly in visually-prominent, mixed use residential areas. This alternative assumes, consistent with *Coliseum Redevelopment Plan* goals, that new, light industrial development would be of equal design integrity as the new residential or commercial/retail development that would occur with the project.

Overall, Alternative 1b would result in reduced less-than-significant land use impacts identified with the project.

Visual Quality and Shadow

Alternative 1b would develop substantially lower (and fewer) buildings on the project site, east of 29th Avenue (Sites I through IV). While Sites III and IV would likely consist of a similar configuration of building on the site as the proposed project, the multifamily residential building would be four stories to accommodate 72 units (versus two buildings of seven and eight stories to accommodate 200 units), and the townhome buildings would continue to be three stories, as with the project. Further, the 45,000 square feet of light industrial use would occur in one or more one- to two-story buildings compared to the nine- and twelve-story residential buildings on Sites I and II. Overall, Alternative 1b would result in reduced less-than-significant impact regarding shadow and scenic vistas and views as identified with the project.

Transportation, Circulation, and Parking

The total amount of development would be less than with the proposed project; thus, AM and PM peak-hour vehicle trips would be 69 and 70 percent, respectively, of the proposed project's trips (representing reductions of 31 and 30 percent; see **Appendix E** to this EIR). As a result, the traffic impacts would be less than what would occur with the project. Specifically, Alternative 1b would avoid the significant impact at the Clement Avenue and Park Street intersection (Impact TRANS- 4d), which is significant and unavoidable with the project because feasible mitigation measure to reduce the impacts to less than significant require City of Alameda approval. Site design conditions affecting circulation would be similar to that proposed by the project, therefore the alternative would have the same or reduced less-than-significant site access and circulation impacts identified for the project. Also, parking configuration under Alternative 1b would be similar to what is proposed by the project; parking supply would continue to exceed parking demand.

Fewer new residents (those associated with 420 fewer units) would occur with Alternative 1b compared to the project), however, there would likely be more employees associated with the *additional* 41,050 square feet of non-commercial space (including 45,000 square feet of light industrial use) that would occur compared to the proposed project. A net increase in transit demand would likely result compared to the project, however, the net increase is not anticipated to result in a significant transit impact; the less-than-significant impact identified for the project would continue to result with Alternative 1b. Overall, Alternative 1b would result in reduced less-than-significant traffic impacts identified with the project.

Air Quality

The demolition and new construction under Alternative 1b would result in similar less-than-significant construction-related air quality impacts (dust) as would occur with the proposed project. Standard conditions required for the proposed project would also be required for this alternative. As discussed above for traffic, Alternative 1b would result in 69 percent of the project's AM peak-hour vehicle trips and 70 percent of the project's PM peak-hour vehicle trips, representing reductions of 31 and 30 percent, respectively (see **Appendix E** to this EIR). As a result, operational air quality impacts for the alternative would be reduced compared to the project and would continue to be less than significant.

Noise

The demolition and new construction under Alternative 1b would result in similar less-than-significant construction-related noise impacts as would occur with the proposed project, after implementation of the standard conditions required for the proposed project. As discussed above for traffic and air, Alternative 1b would result in 69 of the AM peak-hour vehicle trips and 70 percent of the PM peak-hour vehicle trips compared to the proposed project, representing reductions of 31 and 30 percent, respectively (see **Appendix E** to this EIR). As a result, although less than significant, the operational traffic noise levels would be reduced compared to the project. The noise effects from the adjacent passing trains (railroad and BART) that border the site would be the same as with the project since Alternative 1b would locate residences adjacent to these noise sources. The standard conditions identified for the proposed project to address noise-sensitive uses (indoor and outdoor noise levels and groundborne vibration) would also be required for the alternative, thus it would result in the same less-than-significant impact. Overall, Alternative 1b would result in the same or reduced less-than-significant noise impacts identified for the project.

Hazards and Hazardous Materials

Demolition of the existing buildings would occur under Alternative 1b, as with the project. This alternative would result in the same less-than-significant impact that could occur from demolishing a structure that could contain hazardous materials (e.g., lead-based paint, asbestos), as well as the handling of and public exposure to contaminated materials during construction activities and operation of the project; the same standard conditions identified with the project to address hazards would apply to the alternative. In addition, development under this alternative would require the same clean-up of hazardous site conditions as the project Overall, Alternative 1b would result in the same less-than-significant hazardous materials impacts identified with the project.

Public Services and Recreation

Alternative 1b would result in similar less-than-significant impacts to public services and facilities as identified with the project. Residents and school-aged children associated with 580 fewer residential units (even considering increased employee population and building area on the site associated with 45,000 square feet of light industrial use) would likely impact public services

to a lesser extent than the proposed project. Regarding parks and recreation facilities in particular, as with the proposed project, the alternative would adhere to the City's requirement for on-site open space, and the project sponsor would still make improvements to local parks and recreation programs to reduce the effects to park and recreation facilities in the project area, which is currently underserved, though possibly to a lesser degree. Overall, Alternative 1b would result in the same less-than-significant impacts to public services and recreation facilities.

Utilities and Service Systems

Alternative 1b would add approximately 45,000 square feet of light industrial use to the project development, but would develop 580 fewer residential units. While the additional industrial use could likely increase demand for utilities, the increase could also be offset by the absence of demand that would have occurred from the 580 residential uses. Overall, this alternative would result in the same less-than-significant utilities and service systems impacts that would occur with the project, after implementation of standard conditions.

Hydrology and Water Quality

Alternative 1b would result in less development than the project, but would continue to develop all parts of the site. Like the project, the alternative would not result in a substantial reduction in impervious surface area on the site compared to existing conditions. Development of Alternative 1a would incorporate existing regulatory standards, requirements, and best management practices (during construction and project operations) aimed at reducing untreated runoff, soil erosion, and potential flooding in particular. Standard conditions identified to reduce the project's impacts to less than significant would apply to Alternative 1b as well. Overall, Alternative 1b would result in the same less-than-significant water quality impacts identified for the project.

Geology, Soils, and Seismicity

Alternative 1b would construct new development on the site that is subject to seismic ground shaking, settlement and other seismic hazards as the project. However, with the reduced development, this alternative would expose fewer people to such risks compared to the project. Since overall development and on-site population would be less than with the project, the effect could be considered less. Alternative 1b would result in the same less-than-significant geology and seismic hazards impact as identified for the project.

Population, Housing, Employment

Alternative 1b would introduce new population growth, housing, and newly created jobs on the project site. No housing units would be displaced, but the same existing businesses would be incrementally removed from the site as the project is developed over time. With 580 fewer residential units than the project, this alternative would not induce substantial unplanned growth through the provision of new housing or businesses to a greater extent than the project. The effect of Alternative to 1b would be less-than-significant and somewhat reduced from that identified for the project.

Biological Resources

The demolition and new construction under Alternative 1b would result in similar less-than-significant biological resource effects as would occur with the proposed project. Standard conditions required to reduce potential impacts to special-status nesting birds and removal of protected trees in particular would also be required for this alternative. Like the project, Alternative 1b would remove any existing "protected" trees identified on the site pursuant to the Oakland Tree Ordinance, and the same number of trees would be affected. This alternative would thus have the same less-than-significant impact identified for the project.

Cultural Resources

Subsurface activities associated with site preparation and construction would be required to develop Alternative 1b to essentially the same degree as the project given the construction of high-rise towers up to 16 stories tall. Thus, the alternative could have the same potentially significant effect identified for the project, and the standard conditions identified to reduce impacts to archaeological and paleontological resources would also apply. No historic resources as defined by CEQA exist on or in close enough proximity to be adversely affected by the project. Therefore, overall, the alternative would maintain the less-than-significant impacts to cultural resources that were identified for the project.

Alternative 2: Partial Site / Development Occurs Only On Property Controlled by the Project Sponsor

Description

Alternative 2 is included in the EIR to compare the proposed project to a scenario of similar, but less overall development. This alterative assumes that the proposed project would occur only on property that the project sponsor controls. While the site west of 29th Avenue is owned in its entirety by the project sponsor, only a portion of the site east of 29th Avenue is owned by the project sponsor. **Figure III-2** in Chapter III (Project Description) delineates the land currently controlled by the project sponsor. As described there, the project sponsor owns vacant land that extends east-west through the middle of the site. (The project sponsor does not currently own or control the land occupied by the Caltrans South Oakland Maintenance Facility or the four commercial buildings east of 29th Avenue.)

As shown in **Table V-5**, the resulting development plan under Alternative 2 would be the same for potions of the site west of 29th Avenue (Sites I through IV). While the proposed project would result in a total of 300 units (296 high-rise condominiums and 4 three-story townhomes) east of 29th Avenue (Sites V and VI), Alternative 2 would provide a total of 28 three-story townhomes (273 fewer units than the project) in this area. Regarding non-residential uses, Alternative 2 would provide nearly 8,110 more total square feet of commercial space east of 29th Avenue, compared to the project. The alternative would provide a total of 21,150 square feet of

commercial space would on two levels, compare to one 13,040-square foot space on the ground-floor of the proposed project.

TABLE V-5
DETAILED SUMMARY OF ALTERNATIVE 2 – PARTIAL SITE / DEVELOPMENT OCCURS ONLY ON PORTION OF THE SITE CONTROLLED BY THE PROJECT SPONSOR

Site No.	No. Stories	Approximate Building Height (Ft.) to roof	Residential Units	No. Residential Parking Spaces	Parking Spaces per Unit	Non-Residential Uses (SF)	Non-Residential Parking Spaces Provided
1	3 to 12	30 to 122	180	220	1.20	–	–
2	3 to 10	30 to 102	130	143	1.10	2,900	0
3	3 to 7	30 to 72	100	154	1.54	2,900	0
4	3 to 8	30 to 82	100	138	1.38	7,110 5,000 educational center	24
5 - 6	3	30	28	44	1.57	21,150	43
TOTAL	N/A	N/A	538 units	699	1.29	39,060 SF	67

Impacts (Alternative 2)

Land Use, Plans, and Policies

Alternative 2 would require a General Plan Amendment and Rezoning for the project uses west of 29th Avenue and to establish a consistent land use classification and zoning district for the entire site. The development on this portion of the site would be the same under the alternative and the proposed project since the project sponsor current controls all properties in this area. A General Plan Amendment also would be required for the project sponsor's property east of 29th Avenue; this existing *Regional Commercial* area allows residential and commercial (retail) use, and, pursuant to the City's General Plan Guidelines, an interim conditional use permit or Rezoning would be required to develop the residential uses within the M-30 General Industrial Zone that exists on this area of the site. The residential unit count, density, and type (28 three-story townhomes on approximately 1 acre) east of 29th Avenue would be substantially different than the proposed project (300 condominium units in two high-rise towers on approximately 3.6 acres), and the alternative would create substantially more commercial use (21,150 compared to 13,040 square feet).

This lower density residential development would occur at the southeast corner of East 12th Street and 29th Avenue (Sites V and VI), and, as with Alternative 1a, introducing this lower density at this location would not support General Plan policies that encourage high-density development along major corridors, particularly near transit, to the extent realized with the project. Also, the property owned by the project sponsor is "wedged" between the Caltrans maintenance facility and yard on the west, and low-rise commercial buildings on the north, including an automotive repair business. While a two-story commercial building would be developed in addition to the 28

townhomes, this alternative could potentially result in a land use conflict given the intensity of adjacent uses involving heavy truck traffic (Caltrans) and existing auto uses.

This alternative does not assume that the project sponsor would acquire and develop additional properties east of 29th Avenue, specifically the existing Caltrans maintenance yard facility. A potentially significant impact regarding land use compatibility impact could result with Alternative 2 with residential use abutting the industrial use. However, such impacts could be reduced to less than significant with mitigation measures involving the location and orientation of land uses within the site, incorporation of strategically placed landscaping and buffering elements. Thus, the alternative would result in a significant impact not identified for the project and that would be reduced to less than significant, after implementation of mitigation measures.

Visual Quality and Shadow

For Alternative 2, buildings west of 29th Avenue would be the same height as buildings west of 29th Avenue. However, east of 29th Avenue, instead of two high-rise residential towers of 15 and 16 feet, Alternative 2 would result in one, three-story building, which would result in fewer visual impacts. This three-story mixed-use building, with townhomes and commercial on two floors would also result in less new shadow because two-story existing buildings would be located north and south of the new building. Overall, Alternative 2 would result in reduced less-than-significant land use impacts identified with the project.

Transportation, Circulation, and Parking

Under Alternative 2, total development on the site would be less than the proposed project. With fewer residential units and slightly more space dedicated to commercial, development under this alternative would result in slightly fewer peak-hour vehicle trips than estimated for the proposed project AM and PM peak-hour vehicle trips would be approximately 76 and 81 percent, respectively, of the trips estimated for the project (representing reductions of 24 and 19 percent; see **Appendix E** to this EIR). While peak-hour trips would be fewer, Alternative 2 would continue to result in the significant impacts identified with the project, which are considered significant and avoidable because feasible mitigation measure to reduce the impacts to less than significant require City of Alameda approval. Also, site design conditions affecting circulation would be similar to that proposed by the project, thus the alternative would have the same or reduced less-than-significant site access and circulation impacts identified with the project. Also, parking configuration of the alternative would be similar to what is proposed as part of the project, and parking supply would continue to exceed parking demand.

Fewer new residents (those associated with 420 fewer units) would occur with Alternative 2 compared to the project), however, there would likely be more employees associated with the *additional* 8,110 square feet of non-commercial space that would occur compared to the proposed project. A net increase in transit demand would likely result compared to the project, however, the net increase is not anticipated to result in a significant transit impact; the less-than-significant impact identified for the project would continue to result with Alternative 2. Overall, Alternative 2 would result in reduced less-than-significant traffic impacts identified with the project.

Air Quality

The demolition and new construction under Alternative 2 would result in similar less-than-significant construction-related air quality impacts (dust) as would occur with the proposed project. Standard conditions required for the proposed project would also be required for this alternative. As discussed above for traffic, Alternative 2 would result in approximately 76 percent of the project's AM peak-hour vehicle trips and 81 percent of the project's PM peak-hour vehicle trips – representing reductions of 24 and 19 percent, respectively (see **Appendix E** to this EIR). Thus, the reduced scale of Alternative 2 would result in fewer operational air quality effects as for the proposed project, and the impact would remain a less than significant, as identified for the project.

Noise

The demolition and construction activities under Alternative 2 would result in similar less-than-significant construction-related noise impacts, but possibly for a shorter time period given the reduced number of units. The same standard conditions and mitigation measures required for the proposed project regarding reducing indoor and outdoor noise levels and groundborne vibration would apply to the alternative. Also, as discussed above for traffic and air, Alternative 2 would result in approximately 76 percent of the project's AM peak-hour vehicle trips and 81 percent of the project's PM peak-hour vehicle trips – representing reductions of 24 and 19 percent, respectively (see **Appendix E** to this EIR). As a result, this alternative would result in relatively lesser noise impact, but would have the same less-than-significant impacts that would occur with the project, after implementation of standard conditions.

The noise effects from the adjacent passing trains (railroad and BART) that border the site west of 29th Avenue would be the same as with the project since Alternative 2 would locate residences adjacent to these noise sources. However, effects from these noise sources on the 28 townhomes that would occur east of 29th Avenue could be slightly reduced given the intervening development that would remain between the railroad tracks and the sponsor-owned property. The standard conditions identified for the proposed project to address interior and outdoor noise exposure and groundborne vibration would also be required for the alternative, thus it would result in the same less-than-significant impact. Overall, Alternative 2 would result in the same or reduced less-than-significant noise impacts identified with the project.

Hazards and Hazardous Materials

Demolition of the fewer existing buildings would occur under Alternative 2 than with the project. Therefore, the alternative may have lesser effects that could occur from demolishing a structure that could contain hazardous materials (e.g., lead-based paint, asbestos), as well as the handling of and public exposure to contaminated materials during construction activities and operation of the project. Also, since Alternative 2 would cover less of the proposed project site, fewer areas of contamination would be addressed. However, all standard conditions identified for the proposed project would be required to reduce potential impacts from contamination to groundwater and

soils to less than significant. Overall, Alternative 2 would result in the same less-than-significant hazardous materials impacts identified with the project.

Public Services and Recreation

Because Alternative 2 would have fewer units (thus fewer households) than the project, it would also generate fewer school-aged children and result in less demand for public services and facilities, including recreation facilities. Residents and school-aged children associated with 272 fewer residential units (even considering increased employee population and building area on the site associated with an additional 8,110 square feet of commercial use) would likely impact public services to a lesser extent than the proposed project. The useable open space and park area that the project proposes on the portion of the site west of 29th Street would be the same under this alternative, therefore there would be more usable open space per unit for the entire development since 282 fewer units proposed with the project would not occur east of 29th Avenue with the alternative. As with the proposed project, the alternative would adhere to the City's requirement for on-site open space and off-site improvements to reduce the effects to park and recreation facilities in the project area, which is currently underserved. The project sponsor would still make improvements to local parks and recreation programs, though possibly to a lesser degree. Overall, this alternative would result in the same less-than-significant impacts on public services and recreation facilities as identified for the project.

Utilities and Service Systems

Alternative 2 would result in approximately 272 fewer residential units than the proposed project, and nearly 8,110 more square feet commercial use. Taken together, the changes in utility and service systems use demand may result in no net change in effect. Overall, this alternative would result in the same less-than-significant utilities and service systems impacts that would occur with the project.

Hydrology and Water Quality

Alternative 2 would result in less development than the project, but would continue to develop all parts of the site. Like the project, the alternative would not result in a substantial reduction in impervious surface area on the site compared to existing conditions. Development of Alternative 2 would incorporate existing regulatory standards, requirements, and best management practices (during construction and project operations) aimed at reducing untreated runoff, soil erosion, and potential flooding in particular. Standard conditions identified to reduce the project's impacts to less than significant would apply to Alternative 2 as well. Overall, Alternative 2 would result in the same less-than-significant water quality impacts identified for the project.

Geology, Soils, and Seismicity

Alternative 2 would construct new development on the site that is subject to seismic ground shaking, settlement and other seismic hazards as the project. However, with the reduced development, this alternative would expose fewer people to such risks compared to the project. Since overall development and on-site population would be less than with the project, the effect

could be considered less. Alternative 2 would result in the same less-than-significant geology and seismic hazards impact as identified for the project.

Population, Housing, Employment

Alternative 2 would introduce new population growth, housing, and newly created jobs on the project site. No housing units would be displaced, but the same existing businesses would be incrementally removed from the site as the project is developed over time. With 272 fewer residential units and approximately 8,118 square foot more commercial space, the alternative would not have a substantially different effect on unplanned growth than the project would. The effect of Alternative to 2 would be less-than-significant and somewhat reduced from that identified for the project.

Biological Resources

The demolition and new construction under Alternative 2 would result in similar less-than-significant biological resource effects as would occur with the proposed project. Standard conditions required to reduce potential impacts to special-status nesting birds and removal of protected trees in particular would also be required for this alternative. Like the project, Alternative 2 would remove any existing "protected" trees identified on the site pursuant to the Oakland Tree Ordinance, however, fewer trees may be affected given that the development that would occur east of 29th Avenue with this Alternative would not be located in the area of the existing trees. This alternative would thus have the same less-than-significant impact identified for the project.

Cultural Resources

Subsurface activities associated with site preparation and construction would be required to develop Alternative 2 to essentially the same degree as the project given the construction of multifamily buildings up to 12 stories tall. Thus, the alternative could have the same potentially significant effect identified for the project, and the standard conditions identified to reduce impacts to archaeological and paleontological resources would also apply. No historic resources as defined by CEQA exist on or in close enough proximity to be adversely affected by the project. Therefore, overall, the alternative would maintain the less-than-significant impacts to cultural resources that were identified for the project.

Alternative 3: Industrial / Live-Work

Description

Alternative 3 would redevelop the project site with light industrial uses and new joint living and working units (i.e. live / work units). This alternative helps provide a reasonable range of alternatives as required by CEQA. As indicated in **Table V-6** below, Alternative 3 would only

develop approximately 145,000 square feet of light industrial use and 18 commercial live-work units (and associated parking) across the project site.

Approximately 45,000 square feet of light industrial space would occur in the *Business Mix* area at the westernmost 3.0 acres of the site, and an estimated 100,000 square feet of light industrial use would occur in the *Regional Commercial* area at the 3.6-acres of the site east of 29th Avenue (including parcels that the project sponsor does not currently control). Three to four new one- and two-story industrial buildings would be developed. Possible light industrial activities that could occur include manufacturing and/or processing of "articles of merchandise" involving materials specified in Section 17.10.560 of the Oakland Planning Code and would be subject to operational performance standards to ensure compatibility with nearby residential uses, pursuant to Section 17.70.090.

As shown in **Table V-6**, 18 new commercial live-work units would be constructed within the *Mixed Housing Type Residential* area of the site – approximately 3.0 acres at the southwest corner of East 12th Street and 29th Avenue. These units would be constructed in linear, two- to three-story commercial townhouse style similar to the residential townhomes proposed by the project. The live/work units would be oriented to front directly onto East 12th Street. This configuration would allow two rows of units (estimated 10 units each) on the site, with commercial and residential parking and loading areas located internal to the site.

TABLE V-6
DETAILED SUMMARY OF ALTERNATIVE 3 – LIGHT INDUSTRIAL / LIVE-WORK

Site No.	No. Stories	Approximate Building Height (Ft.) to roof	Residential Units	No. Residential Parking Spaces	Parking Spaces Per Unit	Non-Residential Uses (SF)	Non-Residential Parking Spaces Provided
1 - 2	1	15 to 20			–	45,000 light industrial	30
3 - 4	2 to 3	20 to 30	18 live-work	27	1.5	–	–
5 - 6	1	15 to 20			–	100,000 light industrial	67
TOTAL	N/A	N/A	18 live-work	27	1.5	145,000 SF	97

Impacts (Alternative 3)

Land Use, Plans and Policies

No General Plan Amendment would occur under Alternative 3; three existing General Plan land use classifications on the site would remain. The light industrial uses would occur in the existing *Business Mix* and *Regional Commercial* areas, and the live-work uses would occur in the *Mixed Housing Type Residential* area. Only activities consistent with the "light manufacturing activities" defined in the Oakland Planning Code (Section 17.10.560) would occur (considering also the underlying M-30 General Industrial Zone and the City's General Plan Guidelines). Such uses

would be further limited by the operational performance standards that address compatibility with nearby residential uses (Oakland Planning Code Section 17.10.560). As a result (and as discussed for Alternative 1b, which would introduce 45,000 square feet of industrial use to the site), the light industrial and live-work uses in low-rise buildings would not result in a potentially significant land use conflict with the adjacent OHA property maintenance building and yard or industrial, office, school, or residential uses nearby.

As also discussed for Alternative 1b, this alternative would support *Coliseum Redevelopment Plan* goals regarding employment growth and light industrial expansion to a greater extent than the proposed project would. Conversely, while locating new light industrial use in this location would not result in a potentially significant land use conflict, it may not fully support General Plan policies and that seek active commercial and residential development along major corridors and near public transit, particularly in visually-prominent, mixed use residential areas.

Overall, Alternative 3 would result in reduced less-than-significant land use impacts identified with the project.

Visual Quality and Shadow

Alternative 3 would develop substantially lower (and fewer) buildings on the project site. Three to four new one- and two-story industrial buildings would be developed, along with 18 three-story live/work units, compared to the eight- to sixteen-story buildings that would occur with the project. As a result, Alternative 3 would result in reduced less-than-significant impact regarding shadow and scenic vistas and views as identified with the project. This alternative assumes, consistent with *Coliseum Redevelopment Plan* goals, that the light industrial development would be of equal design integrity as the new residential or commercial/retail development that would occur with the project. Therefore, Alternative 3 would result in the same less-than-significant visual quality effects as the project.

Transportation, Circulation, and Parking

Alternative 3 would result in substantially fewer AM and PM peak-hour vehicle trips that would occur with the project. The light industrial and live-work uses would result in 37 percent of the project's AM peak-hour vehicle trips and 15 percent of the project's PM peak-hour trips, representing reductions of 63 and 85 percent, respectively (see **Appendix E** to this EIR). As a result, the traffic impacts would be less than what would occur with the project. Specifically, Alternative 3 would avoid all significant and unavoidable impacts identified for the proposed project. Site design conditions affecting circulation would be somewhat different, depending on the configuration of site buildings, however, it is not anticipated that site access and circulation effects would be worse with the alternative, particularly considering that the project would continue to be subject to City design review and all site design standards that ensure safe and adequate access and circulation within and around the site. Substantially more parking provided with Alternative 3 than with the proposed project (97 spaces compared to 65), and parking supply would continue to exceed parking demand.

While the light industrial uses in Alternative 3 could potentially result in more on-site population (since it could theoretically include a high-employment operation) than would occur with the proposed project, potentially resulting in a net increase in transit demand, the net increase is not anticipated to result in a significant transit impact. The less-than-significant impact identified for the project would continue to result with Alternative 3. Overall, Alternative 3 would result in reduced less-than-significant traffic impacts identified with the project.

Air Quality

The demolition and new construction under Alternative 3 would result in similar less-than-significant construction-related air quality impacts (dust) as would occur with the proposed project. Standard conditions required for the proposed project would also be required for this alternative. As discussed above for traffic, Alternative 3 would result in 37 percent of the project's AM peak-hour vehicle trips and 15 percent of the project's PM peak-hour vehicle trips, representing reductions of 63 and 85 percent, respectively (see **Appendix E** to this EIR). As a result, operational air quality impacts for the alternative would be reduced compared to the project and would continue to be less than significant.

Noise

The demolition and new construction under Alternative 3 would result in similar less-than-significant construction-related noise impacts as would occur with the proposed project, after implementation of the standard conditions required for the proposed project. As discussed above for traffic, Alternative 3 would result in 37 percent of the project's AM peak-hour vehicle trips and 15 percent of the project's PM peak-hour vehicle trips, representing reductions of 63 and 85 percent, respectively (see **Appendix E** to this EIR). While the project's operational noise effects were less than significant, they levels still would be reduced compared to the project. The alternative would not introduce noise-sensitive uses (residential) on the site, so noise effects from the adjacent passing trains (railroad and BART) that border the site would have a reduced effect than identified for the proposed project. Because the City designates live-work uses as commercial activities, this analysis assumes that, although not required, the project sponsor would implement the mitigation measures and standard conditions identified for the proposed project to address the effects of indoor noise exposure and groundborne vibration to live-work tenants. While the noise and vibration effects would be less due to substantially fewer dwelling units (albeit commercial live-work), overall, Alternative 3 would result in the same or reduced less-than-significant noise impacts identified with the project, after implementation of mitigation standard conditions.

Hazards and Hazardous Materials

Demolition of the existing buildings would occur under Alternative 3, as with the project. This alternative would result in the same less-than-significant impact that could occur from demolishing a structure that could contain hazardous materials (e.g., lead-based paint, asbestos), as well as the handling of and public exposure to contaminated materials during construction activities and operation of the project; the same standard conditions identified with the project to

address hazards would apply to the alternative. In addition, development under this alternative would require the same clean-up of hazardous site conditions as the project Overall, Alternative 3 would result in the same less-than-significant hazardous materials impacts identified for the project.

Public Services and Recreation

Alternative 3 would result in similar less-than-significant impacts to public services and facilities as identified with the project. Tenants and relate school-aged children associated with 18 live-work units would occur in this alternative and be substantially less than what would occur with the project. While the commercial uses would have demands for police and fire service, the levels would not likely be substantially more than for 810 residences and 25,095 square feet of commercial retail space. The alternative would likely provide less on-site open space given the proposed uses, the project also would not likely make improvements to local parks and recreation programs to reduce the effects to park and recreation facilities in the project area. Overall, Alternative 3 would result in the same less-than-significant impacts to public services and recreation facilities.

Utilities and Service Systems

Alternative 3 would result in 145,000 square feet of light industrial use and 18 live-work units compared to approximately 30,095 square feet of commercial use and 810 residential units. While substantially different than the project, the alternative is not expected to result in an increased demand for utilities and services systems compared to the project uses. Overall, this alternative would result in the same less-than-significant utilities and service systems impacts that would occur with the project.

Hydrology and Water Quality

Alternative 3 would result in less development than the project, but would continue to develop all parts of the site. Like the project, the alternative would not result in a substantial reduction in impervious surface area on the site compared to existing conditions. Development of Alternative 3 would incorporate existing regulatory standards, requirements, and best management practices (during construction and project operations) aimed at reducing untreated runoff, soil erosion, and potential flooding in particular. Standard conditions identified to reduce the project's impacts to less than significant would apply to Alternative 3 as well. Overall, Alternative 3 would result in the same less-than-significant water quality impacts identified for the project.

Geology, Soils, and Seismicity

Alternative 3 would construct new development on the site that is subject to seismic ground shaking, settlement and other seismic hazards as the project. However, with the reduced development, this alternative would expose fewer people, particularly residents (18 live-work proposed) to such risks compared to the project. Since overall development and on-site population would be less than with the project, the effect could be considered less. Alternative 3

would result in the same less-than-significant geology and seismic hazards impact as identified for the project.

Population, Housing, Employment

Alternative 3 would not introduce substantial population or housing since 18 live-work units would be created, however, the remainder of the project would be 145,000 square feet of new light industrial uses. No housing units would be displaced, but the same existing businesses would be incrementally removed from the site as the project is developed over time. The alternative would not induce unplanned growth as a result of the new housing or businesses on the site, particularly to any greater extent than the proposed project. The impact would be less-than-significant and somewhat reduced from that identified for the project.

Biological Resources

The demolition and new construction under Alternative 3 would result in similar less-than-significant biological resource effects as would occur with the proposed project. Standard conditions required to reduce potential impacts to special-status nesting birds and removal of protected trees in particular would also be required for this alternative. Like the project, Alternative 3 would remove any existing "protected" trees identified on the site pursuant to the Oakland Tree Ordinance and would thus have the same less-than-significant impact identified for the project.

Cultural Resources

Subsurface activities associated with site preparation and construction would be required to develop Alternative 3, but likely to a much lesser extent than would be required for the taller buildings associated with the project. Thus, the Alternative could have the same potentially significant effect identified for the project, and the standard conditions identified to reduce impacts to archaeological and paleontological resources would also apply. No historic resources as defined by CEQA exist on or in close enough proximity to be adversely affected by the project. Therefore, overall, the alternative would maintain the less-than-significant impacts to cultural resources that were identified for the project.

E. Environmentally Superior Alternative - Light Industrial and Live-Work (Alternative 3)

None of the alternatives discussed in this analysis would avoid all of the significant environmental impacts associated with the project. Even Alternative 1a (No Project / Continuation of Recent/Existing Uses and Buildings) would maintain potentially significant traffic impacts at existing intersections that would continue to operate at poor conditions and potentially significant hazardous materials impacts associated with the existing site and that

would not be achieved without measures that would otherwise occur with development of the site.

Therefore, based on the analysis of relative environmental effects presented in this chapter, Alternative 3, Light Industrial and Live-work, which would develop the site with approximately 145,000 square feet of light industrial use and 18 commercial live-work units (and associated parking) on the 9.7-acre proposed site, emerges as the Environmental Superior Alternative under CEQA.

Alternative 3 would develop a combination of uses that would substantially reduce the peak-hour vehicle trips, and thus the corresponding operational effects to air quality and noise. Alternative 3 would result in 37 percent of the project's AM peak-hour vehicle trips and 15 percent of the project's PM peak-hour trips, representing reductions of 63 and 85 percent, respectively (see **Appendix E** to this EIR). As a result, Alternative 3 would avoid each of the significant and unavoidable traffic impacts identified for the project. Less-than-significant traffic effects (identified as significant and reduced to less than significant with mitigation measures and/or standard conditions of approval, or as less than significant requiring no mitigation measure or standard condition), identified for the project would be the same or reduced with Alternative 3.

Similarly, Alternative 3 would implement standard conditions identified in this EIR to address existing and potential hazardous conditions on the project site and potentially in existing buildings – activities that would occur with each of the other alternatives and the project, but not with the continuation of existing conditions (i.e., Alternative 1a).

Because Alternative 3 would not include residential uses and would develop buildings up to three-stories tall (compared to up to twelve and sixteen stories tall with the project), all other environmental effects associated with construction and operations would be the same or less than identified for the project - specifically land use compatibility; shadow and scenic vistas; public services and recreation facilities and utilities; exposure to seismic hazards, and interior noise and vibration (associated with trains).

Table V-7, starting on the following page, summarizes the relative environmental effects of the project compared to those resulting with each alternative discussed in this chapter.

TABLE V-7
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

	Proposed Project 810 units; 31,000 sf commercial/ educational	1a: No Project Existing Conditions 158,000 sf commercial/ storage	1b: Existing General Plan 390 units; 72,000 sf commercial / light industrial / educational	2: Partial Site 538 units; 38,000 sf commercial/ educational	3: Light Industrial / Live-Work 18 live-work; 145,000 sf light industrial
A. Land Use, Plans, and Policies					
Impact LU-1: The project would not physically divide an existing community or fundamentally conflict with existing adjacent land uses.	LS	N	LS	LS⇧	LS⇩
Impact LU-2: The project would not result in a fundamental conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LS	N	LS	LS	N
Impact LU-3: The project, combined with other foreseeable development included in the Oakland cumulative growth scenario, would not result in cumulative land use impacts.	LS	N	LS	LS	LS
B. Visual Quality and Shadow					
Impact AES-1: The proposed project would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources.	LS	N	LS⇩	LS⇩	LS⇩
Impact AES-2: The proposed project would alter the existing visual conditions on the project site, but would not substantially degrade the existing visual character or quality of the site and its surroundings.	LS	N	LS	LS	LS
Impact AES-3: The proposed project would create a new source light or glare, but would not adversely affect day or nighttime views in the area.	LS*	N	LS*	LS*⇩	LS*
Impact AES-4: The proposed project would result in additional shadow on adjacent areas, however, the project would not cast shadow on historic resources; would not introduce landscaping conflicting with the California Public Resource Code, would not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and would not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space.	LS	N	LS	LS⇩	LS⇩

NOTE: Significance levels shown in the table reflect levels of significance after mitigation or standard conditions of approval and indicate maximum impact during buildout and operation, unless otherwise specified.

Legend
LS Less than significant or negligible impact; no mitigation required (*Standard condition identified, but not required for significant impact)
LSM Less than significant impact, after mitigation
LSC Less than significant impact, after standard conditions (LSCM – after standard conditions and mitigation)
S/SU Significant or Significant and unavoidable adverse impact, after mitigation
N No impact
B Beneficial
⇧⇩ Impact is more severe or less severe than project impact, after mitigation

TABLE V-6 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

	Proposed Project	1a: No Project Existing Conditions	1b: Existing General Plan	2: Partial Site	3: Light Industrial / Live-Work
	810 units; 31,000 sf commercial/ educational	158,000 sf commercial/ storage	390 units; 72,000 sf commercial / light industrial / educational	538 units; 38,000 sf commercial/ educational	18 live-work; 145,000 sf light industrial
Impact AES-5: The proposed project may require an exception (variance) to applicable policies and regulations addressing the provision of adequate light related to appropriate uses.	LS	N	LS	LS⇩	LS⇩
Impact AES-6: The proposed project, when combined with other foreseeable development in the vicinity, as identified in the Oakland cumulative growth scenario, could result in cumulative impacts related to visual character views, aesthetics, shadow, light and glare.	LS	N	LS	LS	LS
C. Transportation, Circulation, and Parking					
Impact TRANS-1: Traffic generated by the proposed project would affect project driveways	LS	N	LS	LS	LS
Impact TRANS-2: Traffic generated by the project would affect traffic levels of service at the study intersection under Baseline plus Project Conditions.	SU	SU⇩	SU⇩	SU	LSM
Impact TRANS-3: Traffic generated by the proposed project would affect traffic levels of service at the study intersection under near term 2010 Conditions.	SU	SU⇩	SU⇩	SU	LSM
Impact TRANS-4: Traffic generated by the proposed project in combination with cumulative growth would affect traffic levels of service at local intersections under Cumulative (2025) Conditions	SU	SU⇩	SU⇩	SU	LSM
Impact TRANS-5: Traffic generated by the project would affect baseline traffic levels on freeway segments in the project area.	LS	LS⇩	LS⇩	LS⇩	LS⇩
Impact TRANS-6: Traffic generated by the project would affect traffic levels on freeway segments in the project area under future (2010) Conditions.	LS	LS⇩	LS⇩	LS⇩	LS⇩
Impact TRANS-7: Traffic generated by the proposed project would affect traffic levels on freeway segments in the project area under Cumulative (2025) Conditions.	LS	LS⇩	LS⇩	LS⇩	LS⇩
Impact TRANS-8: The proposed project would increase ridership on public transit providers serving the area.	LS	N	LS	LS	LS

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TABLE V-7 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

	Proposed Project 810 units; 31,000 sf commercial/ educational	1a: No Project Existing Conditions 158,000 sf commercial/ storage	1b: Existing General Plan 390 units; 72,000 sf commercial / light industrial / educational	2: Partial Site 538 units; 38,000 sf commercial/ educational	3: Light Industrial / Live-Work 18 live-work; 145,000 sf light industrial
Impact TRANS-9: Development of the proposed project would conflict with existing pedestrian and/or bicycle facilities.	LS	N	LS	LS	LS
Impact TRANS-10: Development of the proposed project would require improvements to pedestrian and/or bicycle facilities.	LS	N	LS	LS	LS
Impact TRANS-11: Construction of the proposed project would affect traffic flow and circulation, parking, and pedestrian safety.	LSM	N	LSM	LSM	LSM
Impact TRANS-12: Development of the proposed project would have a cumulative impact on roadway segments in the regional traffic network.	LS	N	LS⇩	LS⇩	LS⇩
D. Air Quality					
Impact AIR-1: Activities associated with demolition, site preparation, and construction throughout development of the project would generate suspended and inhalable particulate matter.	LSC	N	LSC	LSC⇩	LSC⇩
Impact AIR-2: Activities associated with demolition, site preparation and construction throughout development of the project would generate emissions of criteria pollutants, including equipment exhaust emissions.	LS*	N	LS*	LS*⇩	LS*⇩
Impact AIR-3: The project would result in increased emissions of criteria pollutants and their precursors from vehicular traffic to and from the project site, however, the emission increases from the project would not exceed Bay Area Air Quality Management District significance criteria.	LS	LS⇩	LS⇩	LS⇩	LS⇩
Impact AIR-4: Mobile emissions generated by project traffic would increase carbon monoxide concentrations at intersections in the project vicinity.	LS	LS⇩	LS⇩	LS⇩	LS⇩
Impact AIR-5: The proposed project could result in exposure of persons to substantial levels of Toxic Air Contaminants such that the probability of contracting cancer for the Maximally Exposed Individual exceeds 10 in one million.	LS	LS⇩	LS⇩	LS⇩	LS⇩

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Impact AIR-6: The proposed project is fundamentally consistent with the growth assumptions of the Bay Area Clean Air Plan.	LS	N	LS	LS	LS
E. Noise					
Impact NOI-1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity.	LSC	N	LSC	LSC⇩	LSC⇩
Impact NOI-2: Noise from project-generated traffic and other operational noise sources, such as mechanical equipment, truck loading/unloading, etc., would not exceed the Oakland Noise Ordinance standards and impact nearby sensitive receptors.	LS	N	LS⇩	LS⇩	LS⇩
Impact NOI-3: The project would place noise-sensitive multifamily residential uses in a noise environment characterized as "clearly unacceptable" for such uses by the City of Oakland.	LSC	N	LSC	LSC	LSC
Impact NOI-4: The project would place noise-sensitive publicly-accessible outdoor uses in a noise environment characterized as "clearly unacceptable" for such uses, as established by the Noise Element of the Oakland General Plan.	LSC	N	LSC	LSC	LS
Impact NOI-5: The project would expose sensitive residential uses to groundborne vibration from trains passing by on the UPRR tracks.	LSC	N	LSC	LSC	LSC
Impact NOI-6: The proposed project, together with anticipated future development included in the Oakland cumulative growth scenario, could result in long-term traffic increases that could cumulatively increase noise levels.	LS	N	LS⇩	LS⇩	LS⇩
F. Hazardous Materials					
Impact HAZ-1: Historical uses at and in the vicinity of the project site have impacted soil and groundwater at the project site. Contaminated soil and groundwater could pose risks to human health and the environment.	LSC	S	LSC /B	LSC /B	LSC /B

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TABLE V-7 (continued)
SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

	Proposed Project	1a: No Project Existing Conditions	1b: Existing General Plan	2: Partial Site	3: Light Industrial / Live-Work
	810 units; 31,000 sf commercial/ educational	158,000 sf commercial/ storage	390 units; 72,000 sf commercial / light industrial / educational	538 units; 38,000 sf commercial/ educational	18 live-work; 145,000 sf light industrial
Impact HAZ-2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, and USTs) during demolition and construction phases of the project or transport of these materials could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling.	LSC	LS⇩	LSC	LSC	LSC
Impact HAZ-3: Hazardous materials used onsite during construction activities (i.e. solvents, paints, fuels, and glues) could be released to the environment through improper handling or storage.	LSC	N	LSC	LSC	LSC
Impact HAZ-4: Accidental rupture of the petroleum pipeline located along the southern boundary of the site could result in adverse impacts to workers, the public, and the environment.	LSC	N	LSC	LSC⇩	LSC
Impact HAZ-5: Project operations would generate and involve the handling of general commercial and household hazardous waste in small quantities, and therefore would not cause an adverse effect on the environment.	LS	LS	LS	LS	LS
Impact HAZ-6: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, would not result in cumulative hazardous materials impacts.	LS	LS	LS	LS	LS
G. Public Services, Parks, and Recreation Facilities					
Impact PS-1: The increased population and density resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for police protection services.	LS	N	LS⇩	LS⇩	LS⇩

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SUMMARY OF RELATIVE IMPACTS: PROJECT AND ALTERNATIVES

	Proposed Project 810 units; 31,000 sf commercial/ educational	1a: No Project Existing Conditions 158,000 sf commercial/ storage	1b: Existing General Plan 390 units; 72,000 sf commercial / light industrial / educational	2: Partial Site 538 units; 38,000 sf commercial/ educational	3: Light Industrial / Live-Work 18 live-work; 145,000 sf light industrial
Impact PS-2: The increased population and density resulting from the project would not involve or require new or physically altered governmental facilities in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection and emergency medical services and facilities.	LS	N	LS⇩	LS⇩	LS⇩
Impact PS-3: The students generated by the project would not require new or physically altered school facilities in order to maintain acceptable service ratios or other performance objectives at local public schools.	LS	N	LS⇩	LS⇩	LS⇩
Impact PS-4: The proposed project has the potential to increase the onsite resident population, and would increase the use of existing neighborhood and regional parks or other recreational facilities, resulting in substantial new or accelerated physical deterioration.	LS	N	LS⇩	LS⇩	LS⇩
Impact PS-5: Increased population resulting from the proposed project, in conjunction with that generated by other foreseeable development in the city and the project vicinity, would increase the cumulative demand for public services, parks, and other recreational facilities such that new facilities could be needed in order to maintain acceptable citywide service ratios.	LS	N	LS⇩	LS⇩	LS⇩
H. Utilities and Service Systems					
Impact UTIL-1: The project would not exceed water supplies available to serve the project from existing entitlements and resources, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	LS	N	LS	LS⇩	LS

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	Proposed Project 810 units; 31,000 sf commercial/ educational	1a: No Project Existing Conditions 158,000 sf commercial/ storage	1b: Existing General Plan 390 units; 72,000 sf commercial / light industrial / educational	2: Partial Site 538 units; 38,000 sf commercial/ educational	3: Light Industrial / Live-Work 18 live-work; 145,000 sf light industrial
Impact UTIL-2: The project's projected wastewater demand would not result in the City of Oakland exceeding its citywide projected base flow allocation, however, it would exceed base flow allocation for Subbasins 60-04 and 62-01, which may require construction of new or expanded facilities, the construction of which could cause significant environmental effects.	LSC	N	LSC	LSC⇩	LSC
Impact UTIL-3: The project would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	N	LS	LS⇩	LS
Impact UTIL-4: The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would not require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects. Additionally, the project would not impede the ability of the City to meet the waste diversion requirements of the California Integrated Waste Management Act or the Alameda County Waste Reduction and Recycling Initiative or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste.	LS*	N	LS*⇩	LS*⇩	LS*⇩
Impact UTIL-5: The project would not violate applicable federal, state and local statutes and regulations relating to energy standards; nor would the proposed project result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	LS	N	LS ⇩	LS ⇩	LS

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	810 units; 31,000 sf commercial/ educational	158,000 sf commercial/ storage	390 units; 72,000 sf commercial / light industrial / educational	538 units; 38,000 sf commercial/ educational	18 live-work; 145,000 sf light industrial
Impact UTIL-6: The increased development resulting from the proposed project, in conjunction with population and density of other foreseeable development in the city, would not result in cumulative impacts on utilities and service systems.	LS	N	LS ⇩	LS ⇩	LS
I. Hydrology and Water Quality					
Impact HYD-1: Construction-related erosion during project development could result in adverse impacts to the water quality of the Oakland Inner Harbor and San Francisco Bay.	LSC	N	LSC	LSC	LSC
Impact HYD-2: Project excavation activities would not deplete groundwater supplies nor substantially interfere with groundwater recharge or cause contaminated groundwater discharge to contaminate surface water	LSC	N	LSC	LSC	LSC
Impact HYD-3: Implementation of the proposed project could result in development and uses that contribute to Non-Point Source (NPS) pollution levels in the Oakland Estuary and San Francisco Bay.	LSC	LS⇧	LSC	LSC	LSC
Impact HYD-4: Implementation of the proposed project could alter drainage patterns on the project site, potentially having adverse effects on the volume and/or timing of peak runoff in the municipal storm drain system.	LSC	N	LSC	LSC	LSC
Impact HYD-5: The project would not result in flooding due to its proximity to a 100-year flood hazard area, or expose people or structures to other substantial risk related to flooding, seiche, tsunami, or mudflow.	LS	N	LS	LS	LS
Impact HYD-6: The increased construction activity and new development resulting from the project, in conjunction with other foreseeable development in the city, would not result in cumulatively considerable impacts on hydrology and water quality conditions.	LS	N	LS	LS	LS
J. Geology, Soils, Seismicity					

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Impact GEO-1: Redevelopment in the project area could expose people or structures to seismic hazards such as groundshaking or liquefaction	LS*	LS*⇩	LS*⇩	LS*⇩	LS*⇩
Impact GEO-2: Redevelopment in the project area could expose people or structures to surface fault rupture.	LS	LS⇩	LS⇩	LS⇩	LS⇩
Impact GEO-3: Redevelopment in the project area could be subjected to geologic hazards, including expansive soils, differential settlement, and erosion.	LS	LS⇩	LS	LS	LS
Impact GEO-4: The development proposed as part of the project, when combined with other reasonably foreseeable development in the vicinity, would not result in significant cumulative impacts with respect to geology, soils or seismicity.	LS	N	LS	LS	LS
K. Population, Housing, Employment					
Impact POP-1: The project would not induce substantial population growth, directly, by proposing new housing or businesses, or indirectly, through infrastructure improvements, such that additional infrastructure is required that was not previously considered or analyzed.	LS	N	LS	LS⇩	LS⇩
L. Biological Resources					
Impact BIO-1: Implementation of the proposed project could result in the removal of, pruning of, and potential damage to protected trees.	LSC	N	LSC	LSC	LSC
Impact BIO-2: Activities associated with the construction of the proposed project could result in adverse impacts on special-status bird species.	LSC	N	LSC	LSC	LSC
Impact BIO-3: Tree removal, building demolition, pile driving, and other proposed construction activities during the breeding season could result in impacts to special-status bat species.	LS	N	LS	LS⇩	LS

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Impact BIO-4: Construction activity resulting from the project, in conjunction with other foreseeable infill development in already heavily urbanized portions of the city, could result in impacts on special-status birds and bats	LS	N	LS	LS⇩	LS
M. Cultural Resources					
Impact CUL-1: The project could adversely affect unknown or undocumented historical resources or unique archaeological resources.	LSC	N	LSC	LSC	LSC
Impact CUL-2: The project would adversely affect paleontological resources	LSC	N	LSC	LSC⇩	LSC
Impact CUL-3: The project would have an adverse impact to architectural resources or built historical resources.	LS	N	LS	LS	LS
Impact CUL-4: The proposed project could contribute to cumulative impacts on cultural resources.	LS	N	LS	LS	LS
Agricultural Resources: The project would not result in impacts to agricultural resources. (No Impact)	N	N	N	N	N
Mineral Resources: The project would not result in impacts on mineral resources. (No Impact)	N	N	N	N	N

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CHAPTER VI
Impact Overview and Growth-Inducing Impacts

This section summarizes the findings with respect to the significant, unavoidable environmental impacts, cumulative impacts, and growth-inducing impacts of the proposed project.

A. Significant, Unavoidable Environmental Impacts

As described in the Introduction to the Environmental Analysis (see Chapter IV), a "significant, unavoidable" impact occurs with the project reaches or exceeds the defined threshold of significance, and no feasible mitigation measure or condition of approval is available to reduce the significant impact to a less-than-significant level. The environmental analysis conducted for the proposed project and presented in Chapter IV., *Environmental Setting, Impacts, and Mitigation Measures*, identified the following significant, unavoidable environmental impacts that would result with the proposed project.

- **Impact TRANS-2a, TRANS-3b, and TRANS-4c: The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the *East 9th Street at I-880 Northbound Off-Ramp intersection* during both peak hours. (Baseline plus Project, 2010 plus Project, and 2025 Cumulative Conditions.)** [Less than Significant with Mitigation Measure TRANS-2a, but requires Caltrans approval and therefore are conservatively considered Significant and Unavoidable.]

- **Impact TRANS-4d: *The Clement Avenue at Park Street intersection* would operate at LOS E with and without the addition of project traffic. However, the addition of project traffic causes the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. (2025 Cumulative)** [Less than Significant with Mitigation Measure TRANS-4d, but requires City of Alameda approval and therefore is conservatively considered Significant and Unavoidable.]

- **Impact TRANS-4e: The *Central Avenue at Park Street intersection* would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour with and without the addition of project traffic. During the a.m. peak hour, the addition of project traffic would not cause the average delay to increase by over four seconds. However, in the p.m. peak hour, the addition of project traffic would cause the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. (2025 Cumulative)**

B. Cumulative Impacts

The California Environmental Quality Act (CEQA) defines cumulative impacts as two or more individual impacts which, when considered together, are substantial or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the "incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects" that can result from "individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355). The analysis of cumulative impacts is a two-phase process that first involves the determination of whether the project, together with reasonably foreseeable projects, would result in a significant impact. If there would be a significant cumulative impact of all such projects, the EIR must determine whether the project's incremental effect is cumulatively considerable, in which case, the project itself is deemed to have a significant cumulative effect. (CEQA Guidelines Section 15130).

As presented in Chapter IV of this EIR, the project would result in the following potentially significant cumulative impacts:

- **Impact TRANS-4a: The addition of project traffic would cause the level of service to deteriorate from LOS D to LOS E at the *East 12th Street at 29th Avenue intersection* during the p.m. peak hour. (2025 Cumulative)** [Less than Significant with Mitigation Measure TRANS-4a.]

- **Impact TRANS 4b: The addition of project traffic would cause the level of service to deteriorate from LOS E to LOS F at the *East 7th Street at Kennedy Street intersection* during the p.m. peak hour. (2025 Cumulative)** [Reduced to Less than Significant with Mitigation Measure TRANS-4b.]

- **Impact TRANS-4c: The addition of project traffic would cause the City of Oakland's significance criteria for unsignalized intersections to be met at the *East 9th Street at I-880 Northbound Off-Ramp intersection* during both peak hours.) (2025 Cumulative)** [Less than Significant with Mitigation Measure TRANS-2a, but requires Caltrans approval and therefore is conservatively considered Significant and Unavoidable as well.]

- **Impact TRANS-4d: *The Clement Avenue at Park Street intersection* would operate at LOS E with and without the addition of project traffic. However, the addition of project traffic causes the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. (2025 Cumulative)** [Less than Significant with Mitigation Measure TRANS-4d, but requires City of Alameda approval and therefore is conservatively considered Significant and Unavoidable as well.]

- **Impact TRANS-4e: The *Central Avenue at Park Street intersection* would operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour with and without the addition of project traffic. During the a.m. peak hour, the addition of project traffic would not cause the average delay to increase by over four seconds. However, in the**

p.m. peak hour, the addition of project traffic would cause the average delay to increase by over four seconds, which would meet the City of Alameda significance criteria. (2025 Cumulative) [Also Significant and Unavoidable.]

C. Growth-Inducing Impacts

CEQA requires that the EIR discuss how the proposed project could induce growth – directly or indirectly. This section addresses the implications of the proposed project for growth in Oakland, nearby cities, and the Bay Area region. The discussion is organized into three topics relevant to consideration of the project's propensity to induce growth:

- Net addition of housing and population: the extent to which project development would result in growth of households and population that otherwise would not occur in Oakland, nearby cities, or the Bay Area region;
- Additional consumer spending by project residents and implications for commercial growth; and
- Nearby area effects of the project on growth and change in surrounding areas.

A discussion of the assumptions used and methodology are included in **Appendix D** to this EIR.

In addition, the City is preparing a socioeconomic report for the project, separate from this Draft EIR. The socioeconomic report addresses the potential for the proposed project to influence the market for housing and retail use in Oakland and the project area, as well as fiscal considerations that are appropriately not addressed as part of the environmental analysis in this EIR, pursuant to CEQA. The socioeconomic report will be available to the public at the City of Oakland's Planning and Zoning Division.

Net Addition of Housing and Population

Development of the project would result in 810 housing units built at the project site. The new housing would accommodate additional households and population at the site – housing and population growth that is not currently assumed for this project site by the Oakland General Plan and regional growth projections.[1] This growth of housing and population would likely increase the demand for nearby community services and facilities, however, as discussed in Section IV.K, *Population, Housing, and Employment*, (Impact POP-1), the increased growth would not induce further growth that would tax or require the expansion of infrastructure or cause an increase in population in a manner that, in turn, would induce significant additional growth that could have physical impacts.

The project and associated changes in land use designation and density for development of the project site would increase the supply of land for residential development in Oakland. Given strong demand for housing in the region and Inner East Bay and a relatively fixed supply of land

[1] The estimated project population would represent 0.001 percent of the city's population in 2010 and 0.003 percent of the city's population as projected for 2025.

for housing development, the new housing in the project would increase the amount of housing development in Oakland over the long-term future and, thus, would represent additional housing over and above what would otherwise be built. Similarly, development of the project would also provide a net addition of units to the stock of housing in the larger, Inner East Bay area, including Oakland and its nearby cities of Berkeley, Albany, Emeryville, Piedmont, Alameda, and San Leandro. Because the project would result in more housing units than would otherwise occur, the project also would result in a net addition of households and population in Oakland and the Inner East Bay area over time.

From the regional perspective of the Bay Area overall, the project would accommodate more housing and population growth in the Oakland area, thereby reducing the demand for housing and the growth of population in more outlying parts of the region. Development of the project would provide additional housing supply in a central Bay Area location with good transportation accessibility. The project's location is anticipated to attract households with a high proportion of working adults who value the site's close-in regional location with good accessibility to workplaces in Oakland, elsewhere in the Inner East Bay, and San Francisco. Thus, from the regional perspective, the project would add housing in an urban, infill location, adding to the housing supply in the Oakland area, and affecting the distribution of household and population growth within the region.

Over the long term, with the project, more higher-density housing in the central parts of the region is likely to result in a larger total regional housing supply than would a more dispersed, lower-density pattern of regional development.

Additional Consumer Spending to Support Additional Commercial Activity

The households to reside in the project would generate additional spending for a variety of goods and services including spending for groceries, drugs, and other convenience items, for eating and drinking out, for retail shopping (clothing, home furnishings, specialty goods, electronics, etc.), for automobile and related purchases and services, and for home maintenance and repair.

The project proposes to include approximately 25,950 square feet of local-serving commercial space on-site for a mix of retail, service, and small office businesses. Project tenants would be supported by the spending of project residents and the spending of people residing in surrounding areas.

Overall, the additional consumer spending of project residents is anticipated to be larger than the sales to be captured in the project commercial space. Thus, the project would contribute additional retail spending to the overall market context. This spending would add market support for retailing in nearby areas, potentially including the Fruitvale Transit Village, shopping areas along International Boulevard in the Eastlake and Fruitvale Business Districts, and in the Fruitvale Station Shopping Center. Additional retail spending also would add support for other retailers and shopping areas in Oakland and in other areas serving Oakland and the Inner East

Bay. The additional spending would provide increased sales for existing retailers, neighborhood districts, and other shopping areas and would add market support for possible retail expansion in Oakland in the future, as desired for downtown Oakland, Jack London Square, and other parts of the city.

Nearby Area Effects on Growth And Change

Contribute to Land Use Changes and Trends Already Underway in Immediate Area

The project would contribute to land use changes and trends already occurring in this part of East Oakland. The immediate areas surrounding the project are in transition from older industrial and heavier commercial uses to a mix of new residential, commercial, and educational/ community-serving land uses. For example, the project site is across East 12th Street from the recently developed Cesar Chavez Education Center that replaced a former Montgomery Ward West Coast distribution center. Nearby, the Fruitvale Station Shopping Center was developed on the site of a former Del Monte Corp. cannery facility. To the east, new housing, commercial space, and a community health center were recently developed in the Fruitvale BART Transit Village Project, and more housing development is in the planning stages for Phase II of that project.

Development of the project would potentially further these trends, adding largely residential development on property now used for commercial and industrial uses. Once developed, this change may enhance the attractiveness of nearby properties for additional residential development and accelerate trends. The success of the project would increase market interest in nearby properties from both households/housing consumers and landowners and housing developers.

Could Encourage Residential Development on Other Land Designated for Industrial Use

Success of the project also could encourage broader market pressures for the redevelopment of Oakland's industrial areas for higher-value residential and commercial uses.

Oakland's supply of industrial land outside the city's airport and seaport areas is focused in East Oakland along San Leandro Street to the southeast of the project site. The City's General Plan designates those areas (between High Street and the Oakland-San Leandro city border) for industrial uses, although zoning and other policies to implement such designations have not been adopted and remain under consideration by city decision-makers.

The recent strength of the residential market has brought a number of development proposals to convert industrial land to residential development, and the success of the project could increase such interest. The effects of the project on growth and change in East Oakland's industrial areas, however, would depend on City land use policy in the future regarding the reservation and retention of these areas for industrial uses as designated in the General Plan. Market pressures to

convert Oakland's supply of industrial land to residential uses have raised policy questions now under consideration, concerning the need for locations for industrial businesses that diversify the local economy, support and service other economic sectors of the city, and provide job opportunities for a segment of the city's labor force.

Conceptually, the project could potentially encourage further development of residential uses on other properties nearby potentially as a result of other properties seeking to reduce land use conflicts in the area, particularly where residential and industrial interface, or as a result of heightened confidence developers and lenders may have in the area after witnessing the successful development and operation of the project. Substantial new growth, however, would depend on many variables, including the ready availability of land conducive for conversion to substantial residential development, with key consideration given to land ownerships and potential need for land assemblage, location, size, configuration, and adjacent land uses. Thus, it is speculative to analyze this potential. Moreover, such a trend has more socio-economic effects than environmental impacts.

Support for Revitalization in Coliseum Redevelopment Project Area

As the project site is located within the Coliseum Redevelopment Project Area, development of the project would directly support the ongoing revitalization of that Project Area. The new development also would generate tax increment funds to the Redevelopment Agency for use in funding additional affordable housing development and other growth and revitalization within the Redevelopment Project Area.

Conclusion

Development of the proposed project would add largely residential development on property now used for commercial and industrial uses, which is an existing trend in the area – the transition of older industrial and heavier commercial uses to residential, commercial, and educational/ community-serving land uses. The proposed General Plan Amendment would allow a greater intensity/density of residential use where commercial, light industrial, and lower intensity/density residential would otherwise have occurred. Together, these change may enhance the attractiveness of nearby properties for additional residential development and accelerate existing trends. In addition the project's population would likely increase consumer spending which would add market support for existing retailers in nearby areas as well as possible retail expansion. However, as indicated above, it is speculative to analyze such trends, and these are more socioeconomic related than the physical impacts reviewed under CEQA. Please also see the socioeconomic report for the project, separate from this Draft EIR.

CHAPTER VII
Report Preparation

EIR Report Authors

City of Oakland
Community and Economic Development Agency
Planning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, California 94612

Director of Development: Claudia Cappio
Project Planner: Darin Ranelletti

EIR Consultants

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Oakland, California 94612

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APPENDICES

APPENDIX A
Notice of Preparation (NOP)

CITY OF OAKLAND

Community and Economic Development Agency, Planning & Zoning Division
250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California, 94612-2032

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT

The Oakland Community and Economic Development Agency, Planning and Zoning Division, is preparing a Draft Environmental Impact Report (EIR) for the project identified below, and we are requesting your comments on the scope and content of the EIR.

The City of Oakland is the Lead Agency for this project, which means that the City of Oakland is the public agency with the greatest responsibility for either approving or carrying out the project. This notice is being sent to Responsible Agencies and other interested parties in accordance with the requirements of the California Environmental Quality Act (CEQA Guideline 15082). Responsible Agencies are those public agencies, in addition to the City of Oakland, that also have a role in approving or carrying out the project. Responsible Agencies may rely upon the EIR when considering approvals related to the project. When the Draft EIR is published, a copy of the Draft EIR will be sent to any Responsible Agency or other party who requests a copy.

Please send any written response to this notice so that it is received no later than December 23, 2005 at 4:00 p.m. Your response should be directed to Darin Ranelletti, Planner III, via mail to City of Oakland, Community and Economic Development Agency, Planning and Zoning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612, via facsimile to (510) 238-4730, or via email to dranelletti@oaklandnet.com. Please reference case number ER05-1 in your response. Any questions concerning this notice should be directed to the case planner, Darin Ranelletti, Planner III, at (510) 238-3663 or dranelletti@oaklandnet.com. Comments may also be provided at the EIR Scoping Session to be held before the City Planning Commission.

EIR SCOPING SESSION: CITY PLANNING COMMISSION

DATE: **December 7, 2005**

TIME: **6:30 P.M.**

LOCATION: **City Hall, One Frank H. Ogawa Plaza, Hearing Room #1**

PROJECT TITLE: The Gateway

PROJECT LOCATION: The approximately 10-acre site is located along the south side of East 12th Street, roughly between Derby Avenue (east) and 23rd Avenue (west) in the City of Oakland, Alameda County, California. The project site consists of the following 11 parcels, identified by Assessor's Parcel Number: 25-693-3-3, 25-693-4, 25-693-5, 25-693-8, 25-693-7-2, 25-697-3-6, 25-697-7-6, 25-697-7-7, 25-701-6-4, 25-701-2, 25-701-11, and 25-707-11-14.

The irregularly-shaped site is located in the San Antonio Planning Area and the Oakland Coliseum Redevelopment Project Area. The southern border of the site consists of actively used railroad tracks. The site vicinity includes elevated BART tracks along the East 12th Street median, Cesar Chavez Education Center and its playfields (directly across East 12th Street), an Oakland Housing Authority facility along the western site boundary, the Fruitvale Station Shopping Center (approximately one block south), the Jingletown residential neighborhood (approximately one block south), a large vacant industrial facility, single-family and multi-family residences nearby, and the Fruitvale BART Station (three blocks east).

PROJECT SPONSOR: Pacific Thomas Capital

PROJECT DESCRIPTION: The Project Sponsor proposes to build a mixed-use Planned Unit Development (PUD) that would consist of approximately six new buildings and would be constructed in four phases. The project would result in approximately 881 new residential units; 30,000 sq. ft. of retail space; approximately

42,100 sq. ft. of ground floor commercial space (commercial "flex" space); and approximately 1,344 parking spaces, including underground parking and surface parking. Five of the buildings would consist of residential units, underground parking, and ground floor commercial space. Four of the five buildings would extend to approximately six stories in height and would provide a range of between 135 and 180 units each, while the fifth building is currently proposed as an 11-story tower with approximately 240 units. Each building would provide a range of between 6,370 sq. ft. and 9,699 sq. ft. of ground floor commercial space, and 204 to 288 parking spaces, both in the underground parking structure (1.5 stories underground) and with limited surface parking. One of the six buildings would be a one-story retail building with approximately 120 surface parking spaces.

The project site is currently occupied by a self-storage company, a hardware store with a lumber yard, approximately four retail/commercial buildings, and a facility owned by Caltrans. The project would result in demolition of all existing buildings. The site is located within three General Plan land use designations – Mixed Housing Type, Business Mix, and Regional Commercial – and is located within an M-30 (General Industrial) zoning district. The project would require a General Plan amendment and rezoning.

PROBABLE ENVIRONMENTAL EFFECTS: The EIR will address potential impacts of the project on aesthetics; air quality; cultural resources; geology and soils; hazards and hazardous materials; hydrology and water quality; land use, plans, and policies; noise levels (and the impact of noise on residential uses); population and housing; public services; recreation; traffic, circulation, and parking; utilities and service systems; and cumulative growth.

Date: November 23, 2005
File No.: ER05-1

Claudia Cappio
Director of Development
Environmental Review Officer

APPENDIX B

Response to the Notice of Preparation

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5559
TTY (800) 735-2929

Flex your power!
Be energy efficient!

December 22, 2005

ALA880651
ALA-880-28.93
SCH 2005112128

Mr. Darin Ranelletti
City of Oakland
Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612-2032

Dear Mr. Ranelletti:

The Gateway – Notice of Preparation

Thank you for including the California Department of Transportation (Department) in the environmental review for the proposed project. The comments presented below are based on the Notice of Preparation for the Gateway Draft Environmental Impact Report (DEIR). As lead agency, the City of Oakland is responsible for all project mitigation, including improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. Any required roadway improvements should be completed prior to issuance of the project's building permit. While an encroachment permit is only required when the project involves work in the State Right of Way (ROW), the Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore, we strongly recommend that the lead agency ensure resolution of the Department's concerns prior to submittal of an encroachment permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding encroachment permits.

Traffic Impact Analysis

The Department is primarily concerned with impacts to the State Highway system. Specifically, a detailed Traffic Impact Analysis (TIA) should identify impacts to Interstate 880 with and without the proposed Gateway traffic. The TIA should include, but is not limited to the following:

1. Information on the project's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed.

2. Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets and highways, including crossroads and controlling intersections.

3. Schematic illustration of the traffic conditions for: 1) existing, 2) existing plus project, and 3) cumulative for the intersections in the project area.

4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State Highway facilities being evaluated.

5. Mitigation measures should consider highway and non-highway improvements and services. Special attention should be given to the development of alternate solutions to circulation problems that do not rely on increased highway construction.

6. All mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

We encourage the City of Oakland to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work. Please see the Caltrans' *"Guide for the Preparation of Traffic Impact Studies"* at the following website for more information: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

We look forward to reviewing the TIA, including Technical Appendices, and DEIR for this project. Please send two copies to the address at the top of this letterhead, marked ATTN: Lisa Carboni, Office of Transit and Community Planning.

Encroachment Permit

Any work or traffic control within the State ROW requires an encroachment permit that is issued by the Department. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process. See the following website link for more information: http://www.dot.ca.gov/hq/traffops/developserv/permits/

To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans (in metric units) which clearly indicate State ROW to the address at the top of this letterhead, marked ATTN: Sean Nozzari, Office of Permits.

Please be advised that the State owned facility within the boundaries of the proposed Gateway project is an active maintenance facility and there are no plans to retire the facility in the foreseeable future.

Should you require further information or have any questions regarding this letter, please call Lisa Carboni of my staff at (510) 622-5491.

Sincerely,

Timothy C. Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: Scott Morgan (State Clearinghouse)

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

December 22, 2005

Darin Ranelletti
City of Oakland
Community and Economic Development Agency
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Subject: The Gateway Project

Dear Mr. Ranelletti:

Bay Area Air Quality Management District (District) staff have reviewed your agency's Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the Gateway Project (project). The project proposes the demolition of existing buildings and the construction of approximately 881 residential units, 30,000 square feet of retail space and 42,100 square feet of commercial space. The project as proposed has the potential to result in significant individual and cumulative air quality impacts. We recommend that the DEIR provide a detailed analysis of the project's potential effects on local and regional air quality from construction activity, long-term operation and cumulative impacts.

The Bay Area is currently a non-attainment area for national and State ambient air quality standards for ground level ozone and State standards for fine particulate matter. The air quality standards for these "criteria pollutants" are set at levels to protect public health and welfare. Any project with the potential to expose sensitive receptors or the general public to substantial levels of criteria pollutants or toxic air contaminants (TACs) would be deemed to have a significant impact. As general background for readers, the DEIR should discuss the health effects of air pollution, the region's attainment status with regard to ambient air quality standards, the implications of not attaining standards by statutory deadlines, and the contribution of mobile and stationary sources to air pollution emissions. The *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (1999)* provide guidance on how to evaluate project impacts and cumulative impacts.

In addition to the background and setting section, the air quality impact analysis should provide the following information:

- Estimate daily and annual VOC, NOx, CO, and PM_{10} emissions from stationary, area and mobile sources resulting from long-term operation of this project and compare to the District's significance criteria.
- Estimate particulate matter emissions from any wood-burning fireplaces.
- Conduct an analysis to identify any potential acute health impacts from diesel construction emissions on adjacent sensitive receptors, such as the Cesar Chavez Education Center and residential units. The California Air Resources Board (ARB) has identified diesel particulate matter as a TAC and known carcinogen.

- Provide a map which identifies the type and location of sensitive receptors within one-half mile of the project site.
- Qualitatively discuss any potential land use compatibility conflicts created as a result of this project due to on-site or off-site generated criteria pollutants, odors or TACs.
- Identify on the sensitive receptor map the potential sources of TACs within one-half mile of the project and qualitatively discuss the potential impacts to future residents. A detailed TAC modeling analysis may be warranted if it is determined that there are substantial sources of TACs generated by this project or by other sources within the vicinity of this project; the analysis should be consistent with the District's Health Risk Screening Assessment Guidelines. The California Air Resource Board's (ARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides helpful guidance on air quality and land use siting issues. The handbook can be downloaded from ARB's website: http://www.arb.ca.gov/ch/landuse.htm.
- Conduct a Safe Routes to School analysis to identify project specific infrastructure and safety improvements that could be incorporated into the project that would encourage alternative modes of transportation for school-aged project residents.
- Provide an assessment to determine if asbestos is present in existing structures and describe how the project will mitigate the impact if it is present. The NOP notes that there will be demolition of structures on the project sites. If these structures were built prior to 1980, it is possible that they contain asbestos. All demolition projects must comply with the District's standards on asbestos testing and abatement (Regulation 11, Rule 2). Please call our Asbestos Information Desk at (415) 749-4762 or refer to our website (www.baaqmd.gov/dst/regulations) for more information concerning Regulation 11, Rule 2.
- Conduct an analysis of the project's potential impacts on the existing or planned transit service in the vicinity of the project. This analysis should identify transit improvements that could be implemented to improve bus service or shuttle service between the project area and the nearest BART station, such as providing covered and well-lighted bus shelters or a shuttle service between the project area and BART.
- Quantify the air quality impacts associated with growth inducing impacts (if any).
- Quantify energy demand and associated annual CO_2 emissions from project operations.
- Identify all feasible mitigation measures to reduce this project's construction, operation and cumulative impacts. The DEIR should evaluate the effectiveness of mitigation measures both qualitatively and quantitatively (when possible). Any mitigation measures considered infeasible should be identified in the DEIR as well as the justification for that determination (CEQA §15091). The District has identified some mitigation measures that are considered feasible for this project. Other measures may be available and may be recommended by the applicant or the City of Oakland that achieve similar or more emission reductions than those presented below:

    1. Implement all construction-related dust measures recommended per the District's CEQA Guidelines (Table 2).
    2. Implement shuttle service between the project area and the nearest BART station.
    3. Provide amenities at transit stops within and adjacent to the project area, such as well-lighted and maintained bus shelters.
    4. Implement transportation demand management measures in the project area including, but not limited to: providing secure bicycle storage near building

entrances; requiring commercial land uses to provide subsidized transit passes for employees; implement a carshare program for project residents and businesses.

5. Allow only U.L. listed natural gas fireplaces to be installed in all residences. Prohibit non- residential land uses from installing wood-burning appliances.
6. Implement measures to reduce combustion emissions from construction equipment – particularly diesel emissions due to the location of sensitive receptors. Such measures could include, but are not limited to: maintaining properly tuned engines; minimizing the idling time of diesel powered construction equipment; using alternative fueled construction equipment (CNG, biodiesel, water emulsion fuel, electric); using add-on control devices such as diesel oxidation catalysts or particulate filters; using diesel construction equipment that meets the ARB's 1996 or newer certification standard for off-road heavy-duty diesel engines; phasing the construction of the project; and limiting the hours of operation of heavy duty equipment.
7. Prohibit diesel forklifts and allow only electric or natural gas forklifts for commercial areas. Where feasible, require landscaping maintenance equipment to be electric. Prohibit leaf blowers to reduce the project's particulate matter emissions.
8. Require all loading docks to have 110 and 220 volt outlets and require all delivery trucks to connect with these outlets to power their auxiliary equipment. Loading docks should be posted with signs prohibiting idling of more than three minutes.
9. Implement green building techniques including, but not limited to the use of: super-efficient heating, ventilation, and air conditioning (HVAC) systems; light-colored and reflective roofing materials, pavement treatments and other energy efficient building materials; the most mature, viable shade trees adjacent to buildings and in parking lots; photovoltaic panels on buildings; and natural light and energy-efficient lighting.

If you have any questions regarding these comments, please contact Douglas Kolozsvari, Environmental Planner, at (415) 749-4602.

Sincerely,

Jean Roggenkamp
Deputy Air Pollution Control Officer

JR:DK

cc: BAAQMD Director Roberta Cooper
BAAQMD Director Scott Haggerty
BAAQMD Director Nate Miley
BAAQMD Director Shelia Young

EAST BAY
MUNICIPAL UTILITY DISTRICT

December 23, 2005

Darin Ranelletti, Planner III
Community and Economic Development Agency
Planning and Zoning Division
City of Oakland
250 Frank Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation of a Draft Environmental Impact Report for the Gateway Project, Oakland

Dear Mr. Ranelletti:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report (EIR) for the Gateway Project located in Oakland. EBMUD has the following comments.

WATER SERVICE

EBMUD's Central Pressure Zone, with service elevation range of 0 to 100 feet, will serve the proposed project. A main extension, at the project sponsor's expense, will be required to serve the proposed development. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions of providing water service to the proposed development. Engineering and installation of water mains and services requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. EBMUD will not install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants.

The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater. EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been

received and reviewed, and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Oakland's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The project sponsor needs to confirm with the City of Oakland Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. The projected peak wet weather wastewater flows from this project need to be determined to assess the available capacity within the subbasin and confirmation included in the EIR. Suggested language to include in the EIR is as follows: "The City of Oakland Public Works Department has confirmed that there is available wastewater capacity within Subbasin *(insert subbasin number here)* that is reserved for this project."

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system that this project will utilize in order to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the City of Oakland include in its conditions of approval a requirement that the project sponsor comply with the Landscape Water Conservation Section of the City of Oakland's Municipal Code, Article 9-4.54 of Chapter 4 of Title 9. EBMUD staff would appreciate the opportunity to meet with the

project sponsor to discuss water conservation programs and best management practices applicable to the integrated projects. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:NJR:sb
sb05_340.doc

ALAMEDA COUNTY
CONGESTION MANAGEMENT AGENCY

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

December 14, 2005

Darin Ranelletti, Planner III
Community and Ecocnomic Development Agency
Planning and Zoning Division
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

SUBJECT: Comments on the Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the Gateway Project (Case Number ER05-1)

Dear Mr. Ranelletti:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the Gateway Project in the City of Oakland. The proposed project would consist of six new buildings and would result in approximately 881 new residential units, 30,000 square feet of retail space, 42,100 square feet of commercial space, and 1,344 parking spaces, including underground and surface parking. The project site is currently occupied be a self-storage company, a hardware store with a lumber yard, four retail/commercial buildings, and a facility owned by Caltrans. All existing buildings would be demolished. The site is located along the south side of East 12th Street between Derby Avenue and 23rd Avenue.

The ACCMA respectfully submits the following comments:

- The City of Oakland adopted resolution number 69475 on November 19, 1992 establishing guidelines for reviewing the impacts of local land use decisions consistent with the Alameda County Congestion Management Program (CMP). Based on our review of the NOP, the proposed project appears to generate at least 100 p.m. peak hour trips over existing conditions. If this is the case, the CMP Land Use Analysis Program requires the City to conduct a traffic analysis of the project using the Countywide Transportation Demand Model for projection years 2010 and 2025 conditions. Please note the following paragraph as it discusses the responsibility for modeling.

    - The CMA Board amended the CMP on March 26th, 1998 so that local jurisdictions are now responsible for conducting the model runs themselves or through a consultant. The City of Oakland and the ACCMA have signed a Countywide Model Agreement on March 22, 1999. The Countywide model, updated incorporating ABAG's revisions to the employment data for Projections 2002, is available to the local jurisdictions for this purpose. However, before the model can be released to you or your consultant, a letter must be submitted to the ACCMA requesting use of the model and describing the project. A copy of a sample letter agreement is available upon request.

- Potential impacts of the project on the Metropolitan Transportation System (MTS) need to be addressed. (See 2005 CMP Figures 1 and 2). The DEIR should address all potential impacts of the project on the MTS roadway and transit systems. These include I-880, I-980, East 14th Street/International Boulevard, 23rd/29th Avenues, Fruitvale Avenue, 42nd Avenue, High Street, and Park Street in Alameda as well as BART and AC Transit. Potential impacts of the project must be addressed for 2010 and 2025 conditions.

    - Please note that the ACCMA does not have a policy for determining a threshold of significance for Level of Service for the Land Use Analysis Program of the CMP. Professional judgment should be applied to determine the significance of project impacts (Please see chapter 6 of 2005 CMP for more information).
    - In addition, the adopted 2005 CMP requires using 1985 Highway Capacity Manual for freeway capacity standards.

- The CMA requests that there be a discussion on the proposed funding sources of the transportation mitigation measures identified in the environmental documentation. The CMP establishes a Capital Improvement Program (See 2005 CMP, Chapter 7) that assigns priorities for funding roadway and transit projects throughout Alameda County. The improvements called for in the DEIR should be consistent with the CMP CIP. Given the limited resources at the state and federal levels, it would be speculative to assume funding of an improvement unless it is consistent with the project funding priorities established in the Capital Improvement Program (CIP) of the CMP, the federal Transportation Improvement Program (TIP), or the adopted Regional Transportation Plan (RTP). Therefore, we are requesting that the environmental documentation include a financial program for all roadway and transit improvements.

- The adequacy of any project mitigation measures should be discussed. On February 25, 1993 the CMA Board adopted three criteria for evaluating the adequacy of DEIR project mitigation measures:
    - Project mitigation measures must be adequate to sustain CMP service standards for roadways and transit;
    - Project mitigation measures must be fully funded to be considered adequate;
    - Project mitigation measures that rely on state or federal funds directed by or influenced by the CMA must be consistent with the project funding priorities established in the Capital Improvement Program (CIP) section of the CMP or the Regional Transportation Plan (RTP).

  It would be helpful to indicate in the DEIR the adequacy of proposed mitigation measures relative to these criteria. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and what would be the effect on LOS if only the funded portions of these projects were assumed to be built prior to project completion.

- Potential impacts of the project on CMP transit levels of service must be analyzed. (See 2005 CMP, Chapter 4). Transit service standards are 15-30 minute headways for bus service and 3.75-15 minute headways for BART during peak hours. The DEIR should address the issue of transit funding as a mitigation measure in the context of the CMA's policies as discussed above.

- The DEIR should also consider demand-related strategies that are designed to reduce the need for new roadway facilities over the long term and to make the most efficient use of existing facilities

(see 2005 CMP, Chapter 5). The DEIR could consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should be considered.

Thank you for the opportunity to comment on this Notice of Preparation. Please do not hesitate to contact me at 510/836-2560 if you require additional information.

Sincerely,

Jean Hart
Deputy Director

cc: file: CMP - Environmental Review Opinions - Responses – 2005
Saravana Suthanthira, Associate Transportation Planner

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

Notice of Preparation

November 29, 2005

To: Reviewing Agencies

Re: The Gateway
SCH# 2005112128

Attached for your review and comment is the Notice of Preparation (NOP) for the The Gateway draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Darin Ranelletti
City of Oakland, Community and Economic Development Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612-2032

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

J. Drieneyn

for Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2005112128
Project Title The Gateway
Lead Agency Oakland, City of

Type NOP Notice of Preparation

Description The project sponsor proposes to build a mixed-use Planned Unit Development that would consist of approximately six new buildings and would be constructed in four phases. The project would result in approximately 881 new residential units; 30,000 sq. ft. of retail spaces; approximately 42,100 sq. ft. of ground floor commercial space (commercial "flex" space); and approximately 1,344 parking spaces, including underground parking and surface parking.

Lead Agency Contact

Name Darin Ranelletti
Agency City of Oakland, Community and Economic Development Agency
Phone (510) 238-6265 **Fax**
email
Address 250 Frank H. Ogawa Plaza, Suite 3315
City Oakland **State** CA **Zip** 94612-2032

Project Location

County Alameda
City Oakland
Region
Cross Streets East 12th Street, Derby Avenue, 23rd Avenue
Parcel No. 25-693-3-3, 25-693-4, 25-693-5, 25-693-8, 25-693-7-2, 25-697-3-6, 25-697-7-6, 25-697-7-7, 25-701
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways BART
Waterways
Schools
Land Use Single-family and multi-family residences

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Geologic/Seismic; Toxic/Hazardous; Water Quality; Landuse; Traffic/Circulation; Public Services; Cumulative Effects

Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Native American Heritage Commission; Department of Health Services; Department of Fish and Game, Region 3; Public Utilities Commission; Department of Housing and Community Development; Caltrans, District 4; Regional Water Quality Control Board, Region 2

Date Received 11/29/2005 **Start of Review** 11/29/2005 **End of Review** 12/28/2005

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Alameda SCH#

Resources Agency

- [ ] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  David Johnson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Roseanne Taylor
- [ ] **California Energy Commission**
  Roger Johnson
- [ ] **Dept. of Forestry & Fire Protection**
  Allen Robertson
- [ ] **Office of Historic Preservation**
  Wayne Donaldson
- [ ] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Reclamation Board**
  DeeDee Jones
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [ ] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 2**
  Banky Curtis
- [ ] **Fish & Game Region 3**
  Robert Floerke
- [ ] **Fish & Game Region 4**
  Mike Mulligan
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Tammy Allen
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section
- [ ] **Dept. of Health Services**
  Veronica Rameriz
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Debby Eddy
- [ ] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [ ] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Ken Lewis
- [ ] **State Lands Commission**
  Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [ ] **California Highway Patrol**
  John Olejnik
  Office of Special Projects
- [ ] **Housing & Community Development**
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Katherine Eastham
- [ ] **Caltrans, District 4**
  Tim Sable
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Marc Birnbaum
- [ ] **Caltrans, District 7**
  Cheryl J. Powell
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Mario Orso
- [ ] **Caltrans, District 12**
  Bob Joseph

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Kurt Karperos
- [ ] Industrial Projects
  Mike Tollstrup

- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Jim Hockenberry
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 08/10/05

STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

ARNOLD SCHWARZENEGGER, *Governor*

December 6, 2005

Darin Ranelletti
City of Oakland
250 Frank H. Ogawa Plaza, Ste. 3315
Oakland, CA 94612

Dear Mr. Ranelletti:

Re: SCH# 2005112128; The Gateway

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection and Safety Division

cc: Pat Kerr, UP

December 22, 2005

Darin Ranelletti, Planner III
CEDA, Planning and Zoning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
RE: Case # ER05-1

Dear Planning and Zoning Division,

This letter is in response to the solicitation for public comments to be addressed in the Draft EIR for the proposed Fruitvale Gateway project on East 12th Street. The St. Elizabeth Local Organizing Committee of the Oakland Community Organizations would like to take this opportunity to share our concerns regarding the proposed project and the impact it will make on our community.

When we first heard about the project, about 8 months ago, we began doing 1-1 conversations with people who live in the Fruitvale area. To date, we've conducted approximately 100 1-1 conversations. We also passed out a survey to several churches and schools in the area to help us identify the housing needs of the families living in our community. Of 250 surveys returned, 91% of the respondents who indicated that they would like to own their residence stated that they would like to purchase a single family home, while only 8% indicated interest in a condominium. The families that responded averaged 2 children and 2+ adults and almost 60% reported an annual household income of less than $30,000. All of these responses lead us to question whether or not a market-rate, condominium project of mostly 1 and 2 bedroom units truly responds to the needs of the families living in the Fruitvale who would like to purchase residences.

While we welcome the creation of new housing for families in our community, we have concerns about the specifics of the Fruitvale Gateway project. The following are concerns we have heard during our conversations and two community meetings we've held regarding this project:

- The impact the project will have on neighborhood schools, particularly the Cesar Chavez schools, both attendance and actual physical impact on the playing fields
- The Market Rate pricing of the units—clearly not being built for working families living in the area whose median income is well below the city average
- Lack of family size units; all studio, 1 and 2 bedroom
- The exacerbation of current traffic problems throughout the Fruitvale area, as well as direct impact on the adjacent schools (parents from the Cesar Chavez schools have been meeting with the city for the past year to mitigate traffic problems around the school)
- Impact on parking-already very scarce in the area and difficult because of the number of people who park on city streets when using BART to commute
- The awkward location of the units between the BART tracks and the railroad tracks
- Pull on overextended public resources primarily police and fire, also libraries, clinics, parks, etc.
- Increase in population density-What impact will 1000+ new people have on the area? The Fruitvale area is already the highest density neighborhood in the city.

Oakland Community Organizations
7200 Bancroft Avenue • #2 Eastmont Mall (upper level) • Oakland, CA 94605-2410
510-639-1444 • FAX 510-632-1225 • http://oaklandcommunity.org

- The design of the buildings-too high, much higher than other buildings in the neighborhoods, block the sky, separation of the community below E. 12th St. from the rest of the Fruitvale
- Air quality, noise
- Concerns about who will manage the development and maintain it

These comments were shared by several of our members at the EIR scoping session on December 7, 2005. We would welcome the opportunity to meet with you to discuss these issues in person. Please feel free to contact us via St. Elizabeth OCO leader Bea Bernstine at 510-204-4706 (BernstB@sutterhealth.org) or OCO Organizer Amy Fitzgerald at 510-459-4130 (afitzgerald@oaklandcommunity.org). Thank you for continued efforts to build a city that meets the needs of all Oakland families.

Sincerely,
The St. Elizabeth Local Organizing Committee of OCO
Manuel Arias
Bea Bernstine
Lilian Cabrera
Catalina Esquivel
Lillian Lopez
Fran Matarrese
Lucy Nevarez

cc:
Douglas Boxer
Nicole Franklin
Colland Jang
Suzie W. Lee
Michael Lighty
Mark A. McClure
Anne E. Mudge

Ranelletti, Darin

From: Amy Fitzgerald [afitzgerald@oaklandcommunity.org]
Sent: Thursday, December 22, 2005 1:50 PM
To: dranelletti@oaklandnet.com
Cc: mmcclure@appliedip.com; dboxer@gmail.com; amudge@mofo.com; suzie@yhla.net; nicoleyfranklin@gmail.com; colland@aol.com; mlighty@calnurses.org
Subject: Public comments re: Fruitvale Gateway proposal

December 22, 2005

Darin Ranelletti, Planner III
CEDA, Planning and Zoning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
RE: Case # ER05-1

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• Increase in population density-What impact will 1000+ new people have on the area? The Fruitvale area is already the highest density neighborhood in the city.

• The design of the buildings-too high, much higher than other buildings in the neighborhood, may block the sky, separation of the community below E. 12th St. from the rest of the Fruitvale • Air quality, noise • Concerns about who will manage the development and maintain it

These comments were shared by several of our members at the EIR scoping session on

December 7, 2005. We would welcome the opportunity to meet with you to discuss these issues in person. Please feel free to contact us via St. Elizabeth OCO leader Bea Bernstine at 510-204-4706 (BernstB@sutterhealth.org) or OCO Organizer Amy Fitzgerald at 510-459-4130 (afitzgerald@oaklandcommunity.org). Thank you for continued efforts to build a city that meets the needs of all Oakland families.

Sincerely,
The St. Elizabeth Local Organizing Committee of OCO Manuel Arias Bea Bernstine Lilian Cabrera Catalina Esquivel Lillian Lopez Fran Matarrese Lucy Nevarez

cc:
Douglas Boxer
Nicole Franklin
Colland Jang
Suzie W. Lee
Michael Lighty
Mark A. McClure
Anne E. Mudge

Ranelletti, Darin

From: Schumacher, Kevin [SHK@cpuc.ca.gov]
Sent: Thursday, December 22, 2005 3:25 PM
To: dranelletti@oaklandnet.com
Subject: Comments regarding The Gateway project - SCH# 2005112128

Attachments: 2005 12 22 - RCES to Oakland - Oak to Ninth w letters.pdf

2005 12 22 - RCES to Oakland -...

Mr. Ranaletti:

Please accept this email as written comment regarding the Notice of Preparation for the Gateway project in Oakland, SCH# 2005112128. It appears that this will be a large development in the vicinity of the railroad tracks. The exact location is difficult to determine from the cross-streets shown in the NOP, however, it is possible that some at-grade highway-rail crossings may be affected by increased traffic and associated congestion. Amtrak and freight trains travel up to 60 MPH in this area with approximately 30 trains per day along the rail corridor.
Because development near the railroad tracks may increase the likelihood of train related incidents with motorists, pedestrians, and bicyclists, mitigation measures should be taken to ensure that safety around the tracks is improved as part of the project.

It may be necessary to improve the safety of existing railroad crossings through warning devices improvements, surfacing installation, or installation of additional signage and markings. It may be necessary to consider closure or grade separation of at-grade crossings. It is critical that barriers or fencing be constructed and maintained along the railroad right-of-way to prevent access to the tracks.

These types of concerns are detailed further in the attached letter which was sent to the City today related to the Oak to Ninth project.
Consideration of the following items should be included in the EIR.
1. Close existing at-grade crossings
2. Grade separate existing at-grade crossings 3. Improve safety of existing at-grade crossings 4. Construct fencing along the railroad right-of-way 5. Improve pedestrian and bicyclist safety at crossings 6. Fully consider the noise impacts 7. Follow-up appropriately on abandoned crossings

Please feel free to contact me with any concerns.

Kevin Schumacher
shk@cpuc.ca.gov
(415)703-1208
Rail Crossings Engineering Section
California Public Utilities Commission

======

SCH Number: 2005112128
Type: NOP - Notice of Preparation
Project Description The project sponsor proposes to build a mixed-use Planned Unit Development that would consist of approximately six new buildings and would be constructed in four phases. The project would result in approximately 881 new residential units; 30,000 sq. ft. of retail spaces; approximately 42,100 sq. ft. of ground floor commercial space (commercial "flex" space); and approximately 1,344 parking spaces, including underground parking and surface parking.
Project Lead Agency Oakland, City of
Contact Information Primary Contact:
Darin Ranelletti
City of Oakland, Community and Economic Development Agency

(510) 238-6265
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612-2032
Project Location County: Alameda
City: Oakland
Region:
Cross Streets: East 12th Street, Derby Avenue, 23rd Avenue Parcel No: 25-693-3-3, 25-693-4, 25-693-5, 25-693-8, 25-693-7-2, 25-697-3-6, 25-697-7-6, 25-697-7-7, 25-701
Township:
Range:
Section:
Base:
Other Location Info:

Proximity To Highways:
Airports:
Railways: BART
Waterways:
Schools:
Land Use: Single-family and multi-family residences

Development Type

Local Action

Project Issues Aesthetic/Visual, Air Quality, Archaeologic-Historic, Geologic/Seismic, Toxic/Hazardous, Water Quality, Landuse, Traffic/Circulation, Public Services, Cumulative Effects

Reviewing Agencies (Agencies in Bold Type submitted comment letters to the State Clearinghouse) Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Native American Heritage Commission; Department of Health Services; Department of Fish and Game, Region 3; Public Utilities Commission; Department of Housing and Community Development; Caltrans, District 4; Regional Water Quality Control Board, Region 2

Date Received: 11/29/2005 Start of Review: 11/29/2005 End of Review: 12/28/2005

STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

December 22, 2005

Margaret Stanzione
City of Oakland Community & Economic Development Department
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Raul Godinez II
Director of Public Works
City of Oakland Public Works Agency
250 Frank H. Ogawa Plaza, Suite 4314
Oakland, CA 94612

SUBJECT: Railroad Safety Issues related to the Oak to Ninth Project

Dear Ms. Stanzione and Mr. Godinez:

As the State Agency with regulatory oversight of rail safety within California, we have major concerns related to the proposed Oak to Ninth Mixed Use Development. Staff of the Commission's Consumer Protection and Safety Division – Rail Crossings Engineering Section (RCES) recently reviewed the draft Environmental Impact Report (EIR) for the proposed project, identified by the State Clearinghouse as SCH#2004062013. Please note that our concerns regarding safety around the railroad tracks were communicated in letters dated September 20, 2005 and October 18, 2005 (see attached). We are aware that the 30-day comment period has expired, however, we believe that to ensure the safety of the motoring public it is necessary for the City to consider the issues below.

Of primary concern to us are the safety hazards inherent in at-grade highway-rail crossings (crossings) in the vicinity of this project. The EIR mentions the proximity of the Union Pacific Railroad's (UPRR) track to the Oak to Ninth project, but only as it relates to traffic congestion, delay of emergency response vehicles, and air quality. The EIR fails to recognize that at-grade highway-rail crossings present safety hazards due to the potential for collisions of trains with motorists, bicyclists, and pedestrians. These hazards can be significantly increased by development near the tracks, particularly development that leads to roadway congestion near the crossings or which brings bicyclists and pedestrians into the area around the tracks. **The issue of safety around the tracks must be addressed as part of this development.**

Current train traffic along the UPRR mainline in this area is approximately 30 trains per day, with Amtrak trains traveling up to 60 MPH. A list of the particular crossings that will be directly affected by this project is included in Appendix A. We recommend that the City hold a diagnostic review of the safety of these crossings with UPRR, CPUC staff, and other interested parties.

We also recommend that the City work with our staff and UPRR to conduct a diagnostic review of the rail corridor and establish a long-range plan for rail safety as Oakland continues to develop between the railroad tracks and the waterfront.

The EIR indicates that there will be a significant increase in traffic volumes and congestion at intersections in the vicinity of the highway-rail crossings. The proposed mitigation measures are to widen roadways, signalize intersections, and optimize timing between the signals. Our concern is that even with these mitigations, significant queuing from the intersections is still expected and this is very likely to lead to motorists stopping on the tracks. It is in the clear interest of safety to avoid such a situation, and where it cannot be avoided, to mitigate the possibility for train-vehicle collisions through improvements directly related to safety at the railroad crossing.

Our previous comments stated: "Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way."

The following topics should be considered in an analysis of railroad crossing safety in the area. Discussion and recommendations related to these topics are included below.

1. Close existing at-grade crossings
2. Grade separate existing at-grade crossings
3. Improve safety of existing at-grade crossings
4. Construct fencing along the railroad right-of-way
5. Improve pedestrian and bicyclist safety at crossings
6. Fully consider the noise impacts
7. Follow-up appropriately on abandoned crossings

1. Closure

The most economical and sometimes easiest method of eliminating safety concerns at crossings is to remove either the roadway or track at unnecessary crossings. The City and Caltrans should consider the elimination of at-grade crossings where possible, particularly at 5th Street, the I-880 off-ramp at 6th Street at Embarcadero, and the I-880 on-ramp at 10th Street at Embarcadero. The City should talk with Caltrans and UPRR regarding the feasibility of removing the spur track running adjacent to Embarcadero, and the number of other tracks connected to it.

2. Grade Separations

The proposed major thoroughfares of Oak Avenue and 5th Avenue should be considered for grade separation. Separation of grade typically requires the construction of a roadway overpass or underpass to physically separate traffic on the roadway from trains on the tracks. Grade separations eliminate the potential for collision between trains and motorists at a crossing.

The current geometric design of Oak Avenue is conducive to the construction of a grade separation structure. This primary route to the proposed development should be considered for grade separation.

At the 5th Street crossing, the EIR notes that Caltrans is planning the reconstruction and widening of the Interstate 880 elevated structure. Such reconstruction, which may include relocation of the

overhead roadway supports, could allow the opportunity for 5th Avenue to also be reconstructed at a separated grade beneath the tracks.

We strongly recommend that the City establish a transportation impact fee program that is specifically allocated to highway-rail crossing safety improvements, and that the program include this project. Such an impact fee might be best used to assist in funding the construction of grade-separated crossings, including Oak Avenue and 5th Avenue.

The following document provides a basis for analyzing the need for grade separation of highway-rail crossings: *Guidance on Traffic Control Devices at Highway-Rail Grade Crossings*, Federal Highway Administration / US DOT Highway-Rail Grade Crossing Technical Working Group, November 2002. Page 27 and 33 of the PDF discuss particular criteria that should be considered when assessing the need for grade separation.

It may be possible that the developer, City, and State could together fund the cost of a grade separation project. The CPUC administers the Grade Separation Program (Section 190) which may provide up to $20 million in funding for projects that will grade separate existing at-grade crossings. The funds are allocated based on a statewide list of crossings that is prioritized by taking into account a number of factors related to crossing safety, including Average Daily Traffic (ADT), average daily train count, accident history, and various other factors. Please contact our office for further information on the Grade Separation Program.

3. Improvements to Existing At-Grade Highway-Rail Crossings

The Transportation, Circulation, and Parking section of the EIR (Section IV.B) should have included analysis of the safety issues directly associated with the presence of railroad tracks and at-grade highway-rail crossings. Closure and grade separation must be considered, as discussed above. However, where at-grade crossings must remain, the City should ensure that the roadways and crossings are configured as safely as possible.

This project is expected to be a source and destination for significant vehicle traffic, and the Level-of-Service analysis in Table IV.B-8 shows that the Embarcadero & 5th Avenue intersection is expected to be operating at LOS D after widening of Embarcadero, meaning that queues may develop. Any queues along 5th Avenue are likely to build up onto the tracks and therefore will require that the traffic signals and crossing warning devices be well coordinated. Similarly, at other crossings in the area which may remain, such as the I-880 on- and off-ramps along Embarcadero, there may be a need to preempt the traffic signals at adjacent intersections.

It should be noted that the LOS analysis is predicated on the assumption that Embarcadero can be significantly widened as a mitigation measure. Such widening may not be possible without the elimination of the railroad track running parallel to the roadway.

Any at-grade crossings where vehicular queuing can be expected to build-up from adjacent roadway intersections should have its automatic warning devices interconnected with traffic signals at the intersection. In its most basic form, railroad crossing preemption of intersection traffic signals provides, upon the approach of a train, a green signal to motorists that may be stopped between the intersection and the crossing, or on the crossing itself. This operation allows those vehicles to proceed off of and away from the tracks. It may be necessary to provide "advance warning time,"

meaning that the traffic signal would enter into a special mode of operation prior to activation of the crossing warning devices in order to ensure that there is appropriate time for pedestrian clearance at crosswalks, transfer of right-of-way at the intersection, and queue clearance to clear vehicles from the highway-rail crossing. Providing advance warning time generally requires modification of the train detection circuitry along the track and has a cost that may need to be included in the estimate for traffic signals.

Although we strongly encourage the City to pursue closure or grade separation, in the more immediate future the City should consider the following improvements at the Oak Avenue and 5th Street crossings:

- Unmountable medians on approach to crossings to prevent motorists from circumventing the activated automatic gate arms
- Flashing light signals mounted over the roadway or in the median to provide greater visibility
- Parking prohibition in the vicinity of crossings (signage, red curbs)
- Elimination of driveways and intersections in the vicinity of at-grade crossings
- Installation of traffic signals at intersections within 200 feet of a crossings
- Interconnection of highway-rail crossing warning devices with traffic signals
- Advance preemption of traffic signals
- Pre-signal (traffic signal directed toward the crossing approach to stop vehicles before track)
- DO NOT STOP ON TRACKS signs (MUTCD R8-8)
- Flashing light signals may need an upgrade to 12-inch, LED-type signals
- Refurbishment and/or installation of railroad crossing advance warning signs and markings

Due to the expected increases in traffic at all roadways in the area, any crossings that will remain should be upgraded to include, at minimum, automatic gate arms with flashing light signals.

Section III.C of the EIR lists various agencies involved in the approval process for this project. It does not, but should, mention that approval by CPUC staff is required prior to changes in the configuration of at-grade highway-rail crossings.

4. Appropriate Fencing to Limit Access of Trespassers

In recent years, fatalities of railroad trespassers have been the leading cause of railroad-related deaths in the United States. Clearly it is in the interest of public safety that pedestrians be kept off of and away from the railroad right-of-way.

The proposed development will clearly attract many people into the area around the tracks, due to the construction of residences, business, parks, and recreational paths. This additional development will lead to some people attempting to cross the tracks at unauthorized locations, and may lead to people walking or jogging along the tracks.

In order to mitigate such trespassing problems, fencing between Embarcadero and the tracks should be a requirement **for the full length of the project**. To ensure its effectiveness, the fencing should be difficult to climb and difficult to cut through (vandal resistant). Our staff can provide particular recommendations on types of fencing that have been successful in similar situations.

5. Pedestrian and Bicycle Safety

The Pedestrian Master Plan discussed in Section IV.A of the EIR includes the goal to "Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue." This area, due to the density of development, is likely to see high pedestrian activity, and therefore safety at the highway-rail grade crossings must be addressed.

For pedestrians and bicyclists, the City should consider improvements to the at-grade crossings including the following:

- automatic-gate arms specific to pedestrian warning along the sidewalks
- improved sidewalk surfacing at the crossing
- tactile warning surfaces on every pedestrian approach the the crossing
- swing gates (pull to enter, push to exit) to encourage pedestrians to pause for a moment prior to stepping onto the tracks
- additional pedestrian oriented railroad crossing warning signage
- pedestrian channelization to ensure that pedestrians follow a path that allows sufficient observation of the warning devices. Effective pedestrian channelization must include barriers and fencing to discourage entry onto the railroad right-of-way.

The Bicycle Master Plan discussed in Section IV.A states a goal to "Upgrade the existing path along the Lake Merritt Channel from Lake Merritt to the Bay Trail..." Figure III-7 shows the proposed Shoreline Parks Network which includes two paths, one on each side of the Lake Merritt Channel, both which appear to cross the railroad tracks in order to reach Embarcadero. We strongly recommend that any plans for such a path be designed with grade separated crossings at the tracks.

6. Noise Analysis

The City Planning Commission's report of September 28, 2005 indicates that "New housing and public parks are proposed to be developed in an area where existing noise levels are above what is considered 'normally acceptable.'" It may be necessary to stress that this is not only related to average noise levels, but also short duration, high volume sounds occurring day and night, due in part to proximity of at-grade highway-rail crossings.

Train horns are required to be sounded as trains approach at-grade crossings, and may be sounded at any time to warn somebody who is on the tracks at a crossing or along the right-of-way. The train horn is utilized by locomotive engineers to give warning of the approaching train, and is an important part of providing for safety at railroad crossings. The Federal Railroad Administration (FRA) established rules on the use of locomotive horns at highway-rail grade crossings effective June 24, 2005. Further information can be found on the FRA website (www.fra.dot.gov).

The measured noise levels provided in the noise impact analysis indicate that near the at-grade crossing of 5th Street there are consistently high peak sound levels at all hours of the day and night. It can be assumed that a number of these peak sound readings are directly related to the presence of a railroad crossing at this location, due to the bells on the warning devices and horns on the trains. A written disclosure should be made to potential residents to make them fully aware of this.

7. Abandonment

It is expected that a number of rail crossings will be abandoned as part of the redevelopment of this currently industrial area. The City should ensure that the abandoned track is removed from at least

the sidewalk and roadway to eliminate the potential safety hazards to motorists, bicyclists, and pedestrians. Abandoned crossings can cause a multitude of concerns if left in place due to the potential for broken and rusty rail, and generally rough surfacing. Abandoned crossings left in place may also encourage a general complacency by the public about safety at the tracks.

For any crossing that is removed or closed, UPRR is required to submit a Commission Form G, Report of Changes at Highway Grade Crossings and Separations. The City should openly communicate with the railroad to ensure that this report is accurately completed. It may be helpful to reference Appendix A for a list of the affected crossings.

We request that the Planning Commission consider the above concerns when negotiating the terms of project approval. I can be contacted with any questions or concerns on this topic at (415)703-1208.

Sincerely,

K Schumacher

Kevin Schumacher

Utilities Engineer
Rail Crossings Engineering Section
California Public Utilities Commission

cc: Patrick Kerr, UPRR

APPENDIX A:
At-grade Highway-Rail Crossings Significantly Affected by the Oak to Ninth Project

CPUC Crossing Number*	DOT Crossing Number*	Street Name	Warning Devices*	Crossing Status
001D-7.20	749591D	Oak Street (at Embarcadero)	2 x Std No. 9-A	Active mainline
001D-7.60	749616W	5th Avenue	2 x Std No. 9	Active mainline
001D-7.60-C	749595F	5th Avenue (closest track to Embarcadero)	2 x Std No. 8	Active spur line
001D-7.70-C	749597U	I-880 off-ramp at 6th Avenue / Embarcadero	2 x Std No. 8	Active spur line
001D-8.00-C	749600A	I-880 on-ramp at 10th Avenue / Embarcadero	2 x Std No. 8	Active spur line
001D-7.40-C	749593S	Embarcadero	2 x Std No. 8	Unknown spur
001D-7.50-C	749594Y	Embarcadero	Crossbucks	Unknown spur
001D-7.65-C	749596M	Embarcadero	Crossbucks	Unknown spur
001D-7.75-C	749598B	Embarcadero	Crossbucks	Unknown spur
001D-7.95-C	749599H	Embarcadero	Crossbucks	Unknown spur

Notes:

(1) The California Public Utilities Commission (CPUC) assigned crossing number is formatted as follows:
001: identifies Union Pacific Railroad
D: identifies the Niles Subdivision
Milepost: Here between 7.20 and 8.00
Suffix: '-C' indicates that the crossing is on a spur line

(2) The US Department of Transporation (DOT) / Federal Railroad Administration assigns each railroad crossing an identifier consisting of six digits followed by a letter, e.g. 749591D.

(3) Standards for crossing warning devices are specified in Commission General Order 75-C.
Standard No. 1-R: Crossbuck assembly (MUTCD R15-1 sign only)
Standard No. 8: automatic flashing light signals
Standard No. 8-A: automatic flashing light signals, and additional flashing light signals on an overhead mast arm
Standard No. 9: automatic gate and flashing light signals
Standard No. 9-A: automatic gate and flashing light signals, and additional flashing light signals on an overhead mast arm

E OF CALIFORNIA
UBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

ARNOLD SCHWARZENEGGER, *Governor*

October 18, 2005

Margaret Stanzione
City of Oakland
250 Frank Ogawa Plaza, Ste. 3315
Oakland, CA 94612

Dear Ms. Stanzione:

Re: SCH# 2004062013; Oak to Ninth Mixed Use Development

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection and Safety Division

cc: Pat Kerr, UP

TE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

ARNOLD SCHWARZENEGGER, *Governor*

September 20, 2005

Margaret Stanzione
City of Oakland Com. & Eco. Dev. Agency
250 Frank H. Ogawa Plaza, Ste. 3315
Oakland, CA 94612

Dear Ms. Stanzione:

Re: SCH# 2004062013; Oak to Ninth Mixed Use Development

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection and Safety Division

cc: Pat Kerr, UP

APPENDIX C

Traffic – International Boulevard Bus Rapid Transit

International Boulevard Bus Rapid Transit

In May of 2007, AC Transit published a Draft Environmental Impact Statement / Environmental Impact Statement Report for a proposed transit system expansion which would allow buses to offer riders a rail-like transit experience that operates more quickly and reliably than regular bus service today (herein referred to as the Bus Rapid Transit or "BRT EIR"). The BRT would connect the cities of Berkeley, Oakland and San Leandro generally along International Boulevard and Telegraph Avenue. In the study area, BRT would run on International Boulevard.

Although there are no finalized design plans, an assurance of full funding for the BRT project, or approvals from AC Transit, the City of Oakland and other public agencies, and although proposed (but not approved) transit improvements are not typically considered as part of the projected base conditions, this EIR nevertheless (conservatively) provides a non-CEQA discussion of the potential effects on project impacts caused by proposed modifications to the traffic circulation network by the proposed International Boulevard BRT.

On International Boulevard, in the study area, the BRT project would result in the elimination of a westbound and eastbound vehicular travel lane. This configuration would leave in place a single westbound lane and a single eastbound lane. In addition, a left turn lane would be provided at major intersections. The BRT project includes new traffic signals and improvements to existing traffic signals (interconnection) to improve the flow of traffic. Included among these improvements would be a reconfigured traffic signal at the intersection of International Boulevard and 29th Avenue. The BRT project may also close median access at a currently unknown number of minor streets.

If the BRT project were to remove westbound and eastbound through lanes on International Boulevard through the study area, the capacity of International Boulevard would be effectively cut in half. The installation of left turn lanes and signal improvements at major intersections would work to reduce this effect, but the carrying capacity of International Boulevard would be substantially reduced. Since many of the study intersections on International Boulevard have been identified as operating at poor levels of service in year 2025 Conditions without BRT, it is likely that this reduction in capacity on International Boulevard would result in substantial congestion and numerous significant unavoidable traffic impacts. If the capacity on International Boulevard is reduced in this fashion, and substantial congestion occurs, it is likely that some vehicles would chose alternative east-west parallel routes to complete their trips (i.e., East 12th Street). Based on the AC Transit Berkeley/Oakland/San Leandro Corridor Major Investment Study[1], it was estimated that approximately 250 vehicles traveling towards the Fruitvale BART Station and 400 traveling away from the Fruitvale BART Station would make use of East 12th Street as opposed to International Boulevard in the AM peak hour in future conditions. Similarly, 400 vehicles traveling towards the Fruitvale BART Station and 250 traveling away from the Fruitvale BART Station would make use of East 12th Street as opposed to International Boulevard in the PM peak hour in future conditions.

1 Cambridge Systematics, Inc., *AC Transit Berkeley/Oakland/San Leandro Corridor MIS*, September 9, 2002.

Intersection Impacts

The effects associated with the implementation of the BRT both on International Boulevard and on parallel roadways are analyzed in the following two sub-sections.

First, a level of service summary is presented for intersections expected to be affected by proposed modifications to the traffic circulation network by the BRT and that are also affected by the proposed project. This analysis uses data from the 2025 plus Project Condition of the Gateway Community Development Project EIR and makes adjustments to account for geometric and volumetric changes related to the BRT.

Next, a "2025 Baseline with BRT" scenario is developed using data from the Gateway Community Development Project EIR, and is compared with level of service findings in the AC Transit BRT EIR.

Gateway Community Development Project Environmental Impact Report

The potential effects of the BRT on intersection operations within the Gateway Community Development area are summarized in **Table C-1**. The level of service summary is presented for intersections expected to be directly affected by proposed modifications to the traffic circulation network by the International Boulevard BRT and that are also affected by the proposed project (i.e. intersections on International Boulevard and parallel routes). It should be noted that the Gateway Community Development Project EIR proposes a mitigation measure at the East 12th Street at 29th Avenue intersection. In Table IV.B-30, separate results are shown for mitigated and non-mitigated scenarios at this intersection.

TABLE C-1
2025 WITH BRT PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)

			AM Peak Hour				PM Peak Hour			
			2025 plus Project		2025 plus Project With BRT		2025 plus Project		2025 plus Project With BRT	
No.	Intersections	Traffic Control	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay
1	East 12th / 29th Ave	Signal	D	50.7	**F**	**>80.0**	**E**	**71.6**	**F**	**>80.0**
2	International / 29th Ave	Signal	C	32.6	C	26.3	F	>80.0	E	66.4
3	East 12th / 30th Ave	TWSC	**F**	**>80.0**	**F**	**>80.0**	C	17.8	C	23.7
5	East 12th / Fruitvale Ave	Signal	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
6	International / Fruitvale Ave	Signal	**E**	**75.1**	**F**	**>80.0**	D	39.9	**F**	**>80.0**
10	East 12th / 26th Ave	TWSC	**F**	**>80.0**	**F**	**>80.0**	C	17.6	C	22.5
11	East 12th / 25th Ave	TWSC	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
12	East 12th / 23rd Ave	Signal	**E**	**55.3**	**E**	**55.2**	D	46.9	D	36.7
13	East 12th / 22nd Ave	Signal	C	27.0	C	26.9	**F**	**>80.0**	**F**	**>80.0**
14	International / 23rd Ave	Signal	C	30.0	C	26.2	A	9.0	B	19.2
22	East 12th / Derby Ave	TWSC	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
23	International / 35th Ave	Signal	B	16.7	**E**	**58.4**	C	24.4	**E**	**71.8**
24	International / 38th Ave	Signal	**E**	**70.7**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
25	International / 42nd Ave	Signal	**E**	**71.9**	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
26	International / High St	Signal	D	35.4	**F**	**>80.0**	**F**	**>80.0**	**F**	**>80.0**
With Mitigation Measure Identified in the Gateway Community Development Project EIR:										
1	East 12th / 29th Ave	Signal	C	28.0	D	37.7	D	38.0	E	66.1

NOTE: Bold and shaded intersections indicate unacceptable operating conditions.

[a] The LOS and delay for two-way stop controlled intersections represent the worst movement or approach. The LOS and delay for signalized intersections and all-way stop controlled intersections represent the overall intersection.

SOURCE: DMJM Harris (2007)

As shown in **Table C-1**, the implementation of the BRT would cause the operating conditions of the East 12th Street at 29th Avenue (under mitigated and non-mitigated scenarios), International Boulevard at Fruitvale Avenue, International Boulevard at 35th Avenue, and International Boulevard at High Street intersections to deteriorate from acceptable levels to unacceptable levels. Although the East 12th Street at 30th Avenue, East 12th Street at Fruitvale Avenue, East 12th Street at 26th Avenue, East 12th Street at 25th Avenue, East 12th Street at Derby Avenue, International Boulevard at 38th Avenue, and International Boulevard at 42nd Avenue intersections would operate at unacceptable levels of service without the addition of the BRT, its implementation would create substantial increases in delay at each of these intersections.

AC Transit East Bay BRT Project Environmental Impact Report

The AC Transit BRT EIR also provided an analysis of potential impacts to intersections along the BRT corridor, as well as to intersections on nearby parallel streets. Specifically, the BRT EIR analyzed the following seven intersections in common with those analyzed in this EIR for the proposed project:

2. International Boulevard at 29th Avenue;
6. International Boulevard at Fruitvale Avenue;
14. International Boulevard at 23rd Avenue;
16. Foothill Boulevard at Fruitvale Avenue;
23. International Boulevard at 35th Avenue;
25. International Boulevard at 42nd Avenue; and
26. International Boulevard at High Street.

The BRT EIR developed its 2025 No Build scenario in a similar fashion as the Gateway Community Development Project EIR in its development of 2025 Baseline Conditions. The BRT EIR's 2025 No Build scenario incorporated all planned and approved developments (without the BRT) into its traffic analysis. It is unlikely that the Gateway Community Development Project was included in this scenario since there was no NOP at the time of their analysis. So, for the purposes of presenting an apples-to-apples comparison to the BRT analyses, this appendix presents a separate "2025 Baseline with BRT" scenario, which does not include the proposed project. A comparison of both BRT analyses is presented in **Table C-2**.

TABLE C-2
COMPARISON OF BRT ANALYSES – 2025 BASELINE WITH BRT CONDITIONS

			AM Peak Hour				PM Peak Hour			
			Gateway EIR Analysis		AC Transit BRT EIR Analysis		Gateway EIR Analysis		AC Transit BRT EIR Analysis	
No.	Intersections	Traffic Control	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay	LOS[a]	Delay
2	International / 29th Ave	Signal	C	25.0	D	39.6	**E**	**59.9**	D	37.0
6	International / Fruitvale Ave[b]	Signal	**F**	**>80.0**	----	----	**F**	**>80.0**	**E**	**66.9**
14	International / 23rd Ave[b]	Signal	C	25.8	----	----	B	18.7	C	23.0
16	Foothill / Fruitvale Ave[b]	Signal	**F**	**>80.0**	----	----	**F**	**>80.0**	**F**	**>80.0**
23	International / 35th Ave	Signal	**E**	**55.6**	D	48.5	**E**	**68.4**	D	35.9
25	International / 42nd Ave	Signal	**F**	**>80.0**	**E**	**70.3**	**F**	**>80.0**	**F**	**>80.0**
26	International / High St	Signal	**F**	**>80.0**	D	35.6	**F**	**>80.0**	**F**	**>80.0**

NOTE: Bold and shaded intersections indicate unacceptable operating conditions.

[a] The LOS and delay for two-way stop controlled intersections represent the worst movement or approach. The LOS and delay for signalized intersections and all-way stop controlled intersections represent the overall intersection.

[b] LOS and delay at this intersection was not presented in the BRT EIR for the a.m. peak hour.

SOURCE: DMJM Harris (2007)

As shown, both EIR's identify unacceptable operating conditions at the International Boulevard at Fruitvale Avenue, Foothill Boulevard at Fruitvale Avenue, International Boulevard at 42nd Avenue, and International Boulevard at High Street intersections. The Gateway Community project analysis also identified unacceptable operating conditions at the International Boulevard at 29th Avenue, and International Boulevard at 35th Avenue intersections. The likely reason for this discrepancy is the fact that the AC Transit's analysis of future 2025 conditions was based on the May of 2003 version of the Alameda County Congestion Management Agency (ACCMA) *Alameda Countywide Travel Demand Model*, whereas the analysis of future 2025 conditions in this EIR was based the September of 2006 version. The September of 2006 version is the most updated and refined version of the *Alameda Countywide Travel Demand Model* available at the time the Notice of Preparation (NOP) of this EIR was issued and this traffic analysis was performed. Also, it should be noted that while the AC Transit's BRT EIR predicts shifts in traffic from International Boulevard to parallel routes, it does not analyze East 12th Street intersections.

At each of the intersections identified as operating at unacceptable conditions in the BRT EIR, AC Transit has proposed improvements which would mitigate potential BRT-related impacts. At each of these intersections, the Gateway Community Development Project was not found to create a significant impact. Thus, none of the improvements identified in the Gateway Community Development Project EIR would conflict with the improvements identified by AC Transit. Also, it should be noted that although the improvements identified in the BRT EIR would occur at different intersections than in the Gateway Community Development Project EIR, they would not be incompatible with the established analysis of Gateway Community Development Project study intersections. Each improvement identified in the BRT EIR is described below:

International Boulevard at Fruitvale Avenue: This intersection would deteriorate to LOS E in the year 2025 with BRT Conditions. To mitigate this potential impact, a southbound right-turn-only lane on Fruitvale Avenue would need to be added. After implementing this improvement, the International Boulevard at Fruitvale Avenue intersection would operate at LOS D.

International Boulevard at 42nd Avenue: This intersection would deteriorate to LOS F in the year 2025 with BRT Conditions. To mitigate this potential impact, the westbound, northbound, and southbound shared through-right-turn lanes would need to be converted into separate through-only and right-turn-only lanes. Additionally, the elimination of median landscaping and the removal of parking along the northern curb for the new westbound right-turn lane would be required. After implementing this improvement, the International Boulevard at 42nd Avenue intersection would operate at LOS D.

International Boulevard at High Street: This intersection would deteriorate to LOS F in the year 2025 with BRT Conditions. The mitigation of potential impacts at this intersection requires the acquisition of right-of-way on the northbound, southbound, and westbound approaches to the intersection at substantial cost, and requires the displacement of existing businesses. As a result, this measure is deemed infeasible; making the anticipated delay and LOS at this intersection unmitigable.

Foothill Boulevard at Fruitvale Avenue: This intersection would deteriorate to LOS F in the year 2025 with BRT Conditions. To mitigate this potential impact, the traffic signal timing would need to be optimized. Optimization of traffic signal shall include determination of allocation of green time for each intersection approach in proportion with the relative traffic volumes on those approaches. After implementing this improvement, the Foothill Boulevard at Fruitvale Avenue intersection would continue to operate at LOS F, but the increase in delay as a result of the displaced vehicles from International Boulevard would be negated.

APPENDIX D

Updated Cumulative Growth Scenario for Oakland as Prepared for Gateway Community Project EIR

APPENDIX D

UPDATED CUMULATIVE GROWTH SCENARIO FOR OAKLAND AS PREPARED FOR *GATEWAY COMMUNITY PROJECT EIR*

This appendix describes the cumulative growth scenario used for environmental impact analysis purposes in the *Gateway Community Project EIR*. The scenario provides the future cumulative development context for Oakland, identified in terms of future employment, households, and population. Use of the scenario for analyzing the project's environmental impacts ensures that those impacts are appropriately considered as part of the cumulative context of future citywide and regional growth and development.

The need for developing the cumulative growth scenario is explained below, followed by a description of the approach and the chronology of scenario development and updates. Then, the updated cumulative scenario for Oakland prepared for this EIR is summarized, followed by comparisons with projections from the Association of Bay Area Governments (ABAG). The specifics of the scenario for areas surrounding the Gateway Community Project are summarized next. The assumptions for growth in the rest of Alameda County and Bay Area region are then identified.

Spreadsheets detailing development projects that underlie this analysis are attached.

NEED FOR THE CUMULATIVE GROWTH SCENARIO

The cumulative growth scenario for Oakland was developed primarily for use in the cumulative transportation analyses in Oakland EIRs. The growth scenario was originally prepared in 2000 after analyses indicated that the growth projections from ABAG as incorporated into the Alameda County Congestion Management Agency (CMA) travel demand model did not reflect the level of growth and development occurring in Oakland. Those projections also did not reflect the locations of growth for future development projects under construction, approved, proposed, and reasonably foreseeable for Oakland. Since the cumulative growth scenario for Oakland was originally developed, it continues to be updated and refined as needed for EIR analyses and planning efforts, and to incorporate newly released 2000 Census data and new projections series from ABAG.

Totals for the cumulative growth scenario for Oakland are now somewhat higher than the ABAG projections currently incorporated into the CMA travel model. Oakland's cumulative growth scenario continues to be used in EIR analyses and planning efforts as it provides more specificity about growth and development occurring in Oakland and can be updated as needed for EIR and planning purposes.

FORECAST-BASED APPROACH THAT INCORPORATES FORESEEABLE FUTURE DEVELOPMENT PROJECTS

The cumulative growth scenario for Oakland is developed using a forecast-based approach, *i.e.*, an approach based on regional forecasts of economic activity and demographic trends. The cumulative growth scenario also considers recent and anticipated future development projects in Oakland as well as other changes in land use, employment, and population. Development projects and other changes are identified and updated based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends. Anticipated future development projects are identified and updated to include approved, proposed, probable, and potential development projects reasonably foreseeable over the next 20 to 25 years.

The growth that could be accommodated by recent and expected future development projects and other changes in land use, employment, and population is evaluated within the context of regional economic and demographic trends and projections. The ABAG projections provide the reference for citywide and county totals for future years. The list of development projects and other changes provide the ability to relate individual projects to the citywide context. The amount of growth represented by development projects and other changes is "fit" within the ABAG projections, to the extent possible. Citywide totals are increased above the ABAG projections if justified by recent and expected future development projects and other anticipated changes. The locations of specific projects and development sites are used for the allocation of growth to subareas and traffic analysis zones (TAZs) within the city. Transportation analyses using the CMA's travel demand model require inputs at the TAZ level.

CHRONOLOGY OF SCENARIO DEVELOPMENT

The cumulative growth scenario for Oakland was originally prepared and continues to be updated by Hausrath Economics Group (HEG), working closely with City of Oakland staff. The scenario was first completed in November 2000. Since that time, the scenario has been updated and refined for different parts of the City as needed for EIR analyses and planning efforts. It also has been updated to incorporate newly released 2000 Census data and new projections from ABAG. The following identifies the different updates that were completed prior to the scenario developed for this EIR:

- June 2001, updated scenario for *Metroport Project EIR*, focusing on updates in the Oakland Airport/Coliseum area;

- August 2001, updated scenario for *Leona Quarry Project EIR*, focusing on the area surrounding the Leona Quarry project;

- January 2002, updated scenario for *Oakland Army Base (OARB) Redevelopment Project EIR*, focusing on updates in the harbor and OARB redevelopment project area and adjacent parts of West Oakland;

- September 2002, 2000 Census data is incorporated into the land use database, along with future demographic factors consistent with the 2000 Census data, as provided by ABAG *Projections 2002*;

- September 2002, updated scenario for *Central City East (CCE) Redevelopment Project EIR*, focusing on updates in East Oakland, within and surrounding the redevelopment project area;

- Early December 2002, updated scenario for *Jack London Square Redevelopment Project EIR*, focusing on updates in the Jack London District of downtown Oakland including Jack London Square;

- Later December 2002, updated scenario for *West Oakland Redevelopment Project EIR*, focusing on updates in West Oakland, and parts of North Oakland within the redevelopment project area, and in adjacent blocks;

- Early February 2003, updated scenario for *Coliseum Gardens Project EIR*, focusing on the project and surrounding Coliseum BART station area;

- January/February 2003, updated scenario to incorporate ABAG *Projections 2002* and to provide land use inputs for the CMA travel model update completed in May 2003;

- June 2003, updated scenario for *Uptown Project EIR*, focusing on the project and updates in downtown Oakland areas surrounding the project; and

- December 2003, updated scenario for *Central Station/Wood Street Project EIR*, focusing on the project and surrounding areas of West Oakland and the Harbor as well as updates for major projects in downtown Oakland and elsewhere in the city.

- November 2004, updated scenario for *Oak to Ninth Avenue Project EIR*, focusing on the project and surrounding areas including the Estuary waterfront, downtown Oakland, and San Antonio area neighborhoods, and also including updates for major projects elsewhere in the city.

- April 2005 (with later modifications to reflect a revised project description), updated scenario for *Kaiser Permanente Oakland Medical Center Replacement Project EIR*, focusing on the project and surrounding areas of North Oakland. Base year 2000 employment also was updated in surrounding areas to incorporate newly released employment data from ABAG, based on analysis of 2000 Census results.

An updated cumulative growth scenario that incorporates and builds on all of the updates listed above, was prepared for this EIR as of March 2006. Changes were made to the citywide land use database to incorporate the Gateway Community project and the Fruitvale Village Phase II

project, and to update assumptions for other growth and development in surrounding areas of East Oakland. Base year 2000 employment also was updated for East Oakland to incorporate recently released employment data from ABAG, based on analysis of 2000 Census results. In addition, assumptions were updated for major projects elsewhere in Oakland, as identified by City staff and other sources.

UPDATED CUMULATIVE GROWTH SCENARIO FOR OAKLAND

Cumulative Growth Scenario for *Gateway Community Project EIR*

The cumulative growth scenario for Oakland identifies employment, households, and population. Employment is disaggregated into four types: service, retail, manufacturing, and other, as required for use in the Alameda County CMA travel demand model. The projections are allocated to the large number of traffic analysis zones identified throughout the city.[1] Scenarios are developed for the years 2005, 2010, and 2025, consistent with the analysis years in the CMA travel model. The cumulative growth scenario for Oakland includes a 2000 base year scenario, consistent with 2000 Census data, although the CMA model does not include year 2000.

The cumulative growth scenario for the City of Oakland, as updated for the *Gateway Community Project EIR*, is summarized in Table D-1 on the next page. The scenario includes the Gateway Community Project.

Following the approach described earlier, analysis to develop the cumulative growth scenario for Oakland evaluated how the amount and type of growth represented by future development projects identified by the City and Port compared to the ABAG projections for Oakland. Other changes in land use, employment, and population also were accounted for. Other additions to employment and population included those resulting from increased occupancies of existing buildings, the re-leasing of space vacated by existing businesses and government activities relocating to newly developed projects, the renovation of space that had previously sat vacant, and the conversion of space in existing buildings to new and more intensive uses. Reductions in employment and population included changes as a result of base closures, displacements by development projects, and the movement of some types of businesses out of the area due to increasing rents and land values as well as other factors. In addition, the cumulative growth scenario also incorporates changes in demographic characteristics of the population in the City's existing housing stock, consistent with the ABAG projections.

[1] The traffic analysis zones (TAZs) are Census Tracts or subdivisions of Census Tracts identified for transportation analysis purposes and used in the CMA travel demand model.

TABLE D-1
UPDATED CUMULATIVE GROWTH SCENARIO
FOR OAKLAND, AS OF MARCH 2006

	2000 /a/	2005	2010	2025	Growth 2000-2025	Growth 2005-2025
Households	150,790	154,730	165,150	182,715	+31,925	+27,985
Household Population /b/	392,310	405,100	425,380	457,440	+65,130	+52,340
Total Population /b/	399,480	412,430	432,920	465,170	+65,690	+52,740
Employed Residents /b/	174,740	180,650	201,630	243,000	+68,260	+62,350
Total Employment	196,930	209,600	225,560	256,910	+59,980	+47,310
Manufacturing	18,880	18,840	19,270	19,910	+1,030	+1,070
Other /c/	75,990	80,450	85,490	93,860	+17,870	+13,410
Retail	22,440	24,030	27,650	31,910	+9,470	+7,880
Service	79,620	86,280	93,150	111,230	+31,610	+24,950

NOTE: The cumulative growth scenario includes the Gateway Community Project.
/a/ Households, household population, total population, and employed residents are from the 2000 Census.
/b/ Projections for 2005, 2010, and 2025 incorporate changes in demographic characteristics of the population in the existing housing stock in Oakland as evidenced in persons per household and employed persons per household factors from ABAG *Projections 2002*. The demographic characteristics of residents of new housing to be built in Oakland by 2005, 2010, and 2025 are based on those same ABAG factors or are estimated using special factors that better reflect the anticipated population in new housing, for TAZs with little or no housing in 2000 of the types being built (as the ABAG factors are based on the existing population in 2000).
/c/ Includes employment in finance, insurance, real estate (FIRE); government; construction; transportation, communications, and utilities (TCU); wholesale; and agriculture and mining.

Source: City of Oakland and Hausrath Economics Group based on approach and methodology described in this appendix.

Comparison with CMA/ABAG Projections

The Updated Cumulative Growth Scenario for Oakland is compared in Table D-2 with the ABAG *Projections 2002* for Oakland and the ABAG projections as incorporated into the Alameda County CMA Travel Model for use in transportation analyses. The ABAG *Projections 2002* series provides the basis for the numbers in the CMA model at the time of the analysis for this EIR.

The cumulative growth scenario for Oakland compares to the CMA/ABAG projections (*Projections 2002*) as follows:

- **Employment**: Employment projections under the cumulative growth scenario are somewhat higher than the ABAG projections for Oakland for future years. The economic activity and employment growth to be accommodated by

TABLE D-2
CUMULATIVE GROWTH SCENARIO FOR *GATEWAY COMMUNITY PROJECT EIR*
AND CMA/ABAG PROJECTIONS FOR OAKLAND

	Jobs	Households	Household Population	Total Population	Employed Residents
2000					
Oakland Cumulative Scenario, 3/2006 /a/	196,930	150,790 /d/	392,310 /d/	399,480 /d/	174,740 /d/
2005					
Oakland Cumulative Scenario, 3/2006 /a/	209,600	154,730	405,100	412,430	180,650
CMA Model/ABAG *P2002* /b/	202,060	154,780	410,350	-	175,080 /e/
ABAG *Projections 2002*	202,080	153,530	407,900	415,700	173,000 /e/
2010					
Oakland Cumulative Scenario, 3/2006 /a/	225,560	165,150	425,380	432,920	201,630
CMA Model/ABAG *P2002* /b/	213,820	158,130	418,420	-	186,080 /e/
ABAG *Projections 2002* /c/	215,580	156,610	415,200	423,200	183,800 /e/
2025					
Oakland Cumulative Scenario, 3/2006 /a/	256,910	182,715	457,440	465,170	243,000
CMA Model/ABAG *P2002* /b/	245,060	169,080	442,370	-	217,040 /e/
ABAG *Projections 2002* /c/	243,500	168,640	441,200	449,500	217,600 /e/

/a/ *Oakland Cumulative Growth Scenario for Gateway Community Project EIR*, March 2006, prepared as described in this appendix.
/b/ ABAG *Projections 2002*, as included in the updated Alameda County CMA travel demand model released May 2003.
/c/ From ABAG *Projections* 2002 publication.
/d/ From 2000 Census.
/e/ Not based on 2000 Census, as developed prior to release of employed resident data.

Source: Hausrath Economics Group based on sources identified above, and as described further in this appendix.

identified major development projects and other anticipated changes in land use and employment in Oakland are estimated to result in total employment that is about five percent higher than the ABAG *Projections 2002* for both the shorter term (2010) and longer term (2025) futures.

- **Housing and Households**: Household projections for Oakland in 2010 and 2025 are higher under the cumulative growth scenario than the ABAG projections, about four to five percent higher in the near term future (2010) and about eight percent higher in the longer term (2025) future. Housing currently under development in Oakland and housing anticipated to be developed in the future (including the new housing proposed for the project) would accommodate more household growth than reflected by ABAG *Projections 2002*.

- **Population**: The cumulative growth scenario shows somewhat higher population in Oakland than the ABAG projections due to the larger number of households anticipated. Population under the cumulative growth scenario is about two percent higher than the ABAG projections in the near term future (2010) and about three to four percent higher over the longer term (2025). The differences in population are less than the differences in households because the cumulative growth scenario incorporates demographic assumptions for residents in new housing in Oakland that are specific to the types of new housing being built (as is the case for the project). Under the ABAG projections, the demographic characteristics of residents of new housing are based on the characteristics of residents in existing housing nearby, which may not necessarily be applicable for the types of new housing being built (such as for the higher-density types of new housing proposed for the project or being built downtown and along the Estuary waterfront, or for new loft housing in other parts of Oakland). In many cases, the types of higher-density new housing being developed include smaller housing units and attract households with smaller than average household sizes. The characteristics of residents in the existing housing stock and overall demographic trends are similar in both cases, as those assumed for the growth scenario are based on ABAG projections.

- **Employed Residents**: The cumulative growth scenario anticipates more employed residents in Oakland in the future compared to the ABAG *Projections 2002*, about eight to 10 percent more employed residents in the near-term (2010) future and 12 percent more over the longer term (2025). One reason is that 2000 Census data that provide the base year for the cumulative growth scenario show about three percent more employed residents in Oakland in 2000, compared to the ABAG projections which were prepared before release of employed resident data from the 2000 Census. The higher number of employed residents in Oakland in 2000 also are included in the future year totals under the cumulative scenario. Other reasons are because of the higher number of households under the cumulative scenario, and because of the demographic characteristics for residents in the types of new housing being built in Oakland, which generally include proportionally more residents who work, compared to demographic characteristics for the population overall.

The cumulative analysis in this EIR assumes the updated cumulative growth scenario for Oakland.[2] This approach ensures that the cumulative effects of all locally anticipated growth and development can be evaluated within the EIR analysis period.

AREAS SURROUNDING THE GATEWAY COMMUNITY PROJECT

Attention was given to the cumulative growth scenario for traffic analysis zones (TAZs) in East Oakland areas surrounding the Gateway Community Project, particularly the San Antonio and Fruitvale areas. Growth and change in these areas are of particular interest for the cumulative traffic analysis. Analysis was done to review and update the projections for the surrounding areas for use in the cumulative analyses for this EIR.

The updated cumulative scenario for East Oakland areas including and surrounding the Gateway Community Project is summarized in Table D-3 (on the next page). A map outlining the surrounding areas is included in Figure D-1 at the end of this appendix. The surrounding areas include the following:

- The **San Antonio**, between I-580 and the Estuary, from Lake Merritt and the Channel on the west to Fruitvale Avenue and 28th Avenue on the east above I-880 and to approximately 22nd Avenue below I-880 to the Estuary.

- The **Fruitvale**, between I-580 and the Estuary, from Fruitvale/28th/22nd Avenues on the west to High Street on the east.

- The **Rest of East Oakland**, below I-580 from High Street to the City border, including the Central East Oakland, Elmhurst, and Airport planning areas.

Tables presented at the end of this appendix provide more detailed versions of the estimates and projections for the surrounding areas. Table D-4 (parts a. through f.) presents the estimates and projections for the planning areas and for all of the traffic analysis zones (TAZs) in the surrounding East Oakland areas. The projections include the growth associated with the project. (The planning areas are shown on the map in Figure D-1, and the TAZs within the San Antonio and Fruitvale areas are identified on the map in Figure D-2, both included at the end of this appendix.)

Table D-5 (parts a. and b.) lists the development projects identified for the surrounding East Oakland areas based on input from City of Oakland and Port of Oakland staffs as well as other sources. The table has two parts, one listing housing projects (part a) and the other listing commercial/industrial developments and other changes (part b). The lists include major projects under construction, approved and proposed projects, potential projects under consideration and anticipated to be developed by 2025, as well as other possible developments and changes within the analysis timeframe. In most cases, the project assumptions identified on the lists describe the new development; they do not identify existing uses and activities on development sites that

[2] Except for a part of the transportation analysis that specifically requires use of the CMA/ABAG *Projections 2002* land use database, as noted in the Transportation section.

TABLE D-3
CUMULATIVE GROWTH SCENARIO FOR AREAS OF EAST OAKLAND, INCLUDING AND SURROUNDING THE GATEWAY COMMUNITY PROJECT

	2000	2005	2010	2025	Growth 2000-2025	Growth 2005-2025
San Antonio						
Employment	12,400	12,600	13,060	13,960	+1,560	+1,360
Households	21,100	21,280	22,500	24,560	+3,460	+3,280
Population	61,850	62,810	64,910	68,050	+6,200	+5,240
Fruitvale						
Employment	9,130	9,500	9,750	10,290	+1,160	+790
Households	12,610	12,940	13,910	15,070	+2,460	+2,130
Population	43,310	44,450	46,610	49,010	+5,700	+4,560
Rest of East Oakland (Central East Oakland, Elmhurst, and Airport areas)						
Employment	43,010	47,330	49,800	57,030	+14,020	+9,700
Households	34,630	35,240	36,110	38,740	+4,110	+3,500
Population	113,540	116,510	118,890	125,720	+12,180	+9,210
TOTAL PROJECT AND SURROUNDING AREAS						
Employment	64,540	69,430	72,610	81,280	+16,740	+11,850
Households	68,340	69,460	72,520	78,370	+10,030	+8,910
Population	218,700	223,770	230,410	242,780	+24,080	+19,010

Source: City of Oakland and Hausrath Economics Group based on approach and methodology described in this appendix.

would be removed for development, although the latter are accounted for in the cumulative growth scenario.

The projects on the lists for the surrounding areas all "fit" within the updated cumulative growth scenario summarized herein and used for the cumulative analysis in this EIR. As explained earlier in this appendix, the scenario also includes other changes in land use and in employment and population besides those associated with development of projects on the lists. Thus, the lists alone do not equate to the changes over time in the growth scenario.

The amounts of employment, household, and population growth reflected by the growth scenario, and those represented by the projects on the lists, are more important than the specific projects identified. It is to be expected that the projects on the lists will change over time, and some will be added while others will be deleted. The lists reflect the best information at the time

of the analysis. The growth scenario itself can remain valid as changes occur over time in the specifics of the development projects anticipated for the surrounding areas.

GROWTH IN THE REST OF ALAMEDA COUNTY AND BAY AREA REGION

The growth scenario used for the cumulative transportation analysis for this EIR assumes growth in employment, households, and population as projected by ABAG *Projections 2002* and included in the CMA travel demand model for the rest of Alameda County and the Bay Area region outside of Oakland.[3] The land use projections in the CMA model for the nearby City of Alameda were reviewed, discussed with City of Alameda staff, and modified as part of the growth scenario update for the *Oak to Ninth Avenue Project EIR*. Inconsistencies in the data across analysis years and variables were identified, and the data were adjusted as needed, in coordination with Alameda staff.[4] The adjusted CMA/ABAG projections for Alameda continue to be included in the cumulative database for use in this and other Oakland EIRs.

COMMENTS REGARDING ABAG'S RECENT SMART GROWTH FORECASTS

The ABAG *Projections 2002* referred to throughout this appendix, can be identified as ABAG's trends projections, as they are the most recent ABAG projections available during preparation of the analysis in this EIR based largely on regional and local economic, demographic, real estate, and land use trends. Since those projections, ABAG has recently developed policy-based projections that incorporate regional Smart Growth policy goals over the long-term future. The recently released ABAG *Projections 2005* provide a Smart Growth forecast that assumes the implementation of policies to encourage more growth in central parts of the region, less growth in more outlying areas, and more total housing production in the region at higher overall densities of development and more focused in locations with proximity to employment centers and transit services. Substantial changes in state, regional, and local policies affecting land use, local government tax base, funding for affordable housing, investment in infrastructure, and various other incentives would be required to achieve the Smart Growth forecast. Because of its central location and its role as a center city within the region, long-term growth in Oakland (by 2025 and 2030) would be higher under ABAG's Smart Growth Forecast, compared to the *Projections 2002* trends forecast.

The cumulative analysis for this EIR is based on the Oakland Cumulative Growth Scenario for Oakland and on ABAG's *Projections 2002* for the rest of the region. A primary reason is that the Alameda County CMA's travel demand model and the CMA requirements for transportation analysis continue to be based on the ABAG *Projections 2002* projections. The *Projections 2002* projections are the only ones that have been allocated to TAZs throughout Alameda County and

[3] The land use database in the Alameda County CMA travel model at the time of the analysis for this EIR was that updated as of May 2003 to incorporate ABAG *Projections 2002*, and then revised as of March 2004 to incorporate ABAG's revisions to the allocations of *Projections 2002* employment data to Census Tracts within cities in the region.

[4] Communications occurred in July 2004 and December 2004 with Andrew Thomas of the City of Alameda Planning Department who signed off on use of the adjusted CMA/ABAG projections for Alameda in the cumulative database for the transportation analysis.

the rest of the region as required for land use inputs to the countywide transportation model (2006 Alameda County CMA Model). Another reason the cumulative analysis for this EIR is based on the Oakland Cumulative Growth Scenario and on ABAG's *Projections 2002* for the rest of the region is that Oakland's cumulative scenario reflects an accurate and realistic forecast of current and anticipated future growth and change in Oakland based on the analyses described in this appendix and the City's continuing process of reviewing and updating the cumulative scenario to incorporate new information/data and changing trends. Oakland's cumulative scenario already reflects local Smart Growth land use policies as set forth in the City's General Plan Land Use and Transportation Element. The cumulative scenario also has somewhat higher levels of growth in Oakland than ABAG's *Projections 2002*, particularly household growth, consistent with the intent of the region's Smart Growth policy goals.[5]

As mentioned above, ABAG *Projections 2002* are the most current ABAG projections available during preparation of the analysis in this EIR. ABAG's *Projections 2005* and *Projections 2007* (socioeconomic forecasts) were released to the City of Oakland in early 2007, well after issuance of the Notice of Preparation (NOP) for this EIR (November 23, 2005) and after completion of the in-depth transportation analysis conducted for the project. ABAG *Projections 2002* are consistent with the forecasts in the subsequent Smart Growth forecasts reflected in *Projections 2005* and *Projections 2007*. The latter show that the substantial growth increase estimated under the Smart Growth projections (compared to previous projections, *Projections 2002*) would occur *after* 2030, which is beyond the 2025 analysis timeframe for this EIR. Therefore, use of the available ABAG *Projections 2002* in this EIR does not result in substantially different or understated project effects since they are consistent with the more recent projections for the time period analyzed herein.

[5] The cumulative scenario totals for households in Oakland by 2025 are within two percent of ABAG's *Projections 2005* for Oakland in 2025, and the employment totals are within four percent.

TABLE D-4a: 2000 CUMULATIVE SCENARIO FOR SURROUNDING AREAS OF EAST OAKLAND - MARCH 2006														
	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
98	405200	SA	AI	976	743	1507	0	1507	5	17	4	258	284	65100
541	405200	SA	AI	1067	893	1644	3	1647	1	27	49	363	440	65100
542	405200	SA	AI	1190	853	1837	0	1837	2	5	11	72	90	65100
96	405300	SA	AI	1584	1615	2908	35	2943	5	90	41	186	322	51000
539	405300	SA	AI	1559	1465	2895	0	2895	21	81	182	206	490	51000
97	405400	SA	AI	831	699	2152	7	2159	99	35	68	88	290	43200
540	405400	SA	AI	1002	966	2577	23	2600	11	60	24	87	182	43200
737	405400	SA	AI	635	426	1642	7	1649	11	272	27	230	540	43200
738	405400	SA	AI	760	706	1855	118	1973	0	198	4	87	289	43200
543	405500	SA	AI	941	925	2157	0	2157	22	11	8	38	79	48900
764	405500	SA	AI	867	616	1990	0	1990	0	11	0	51	62	48900
99	405600	SA	AI	1831	1438	3734	0	3734	20	41	4	157	222	57700
549	405700	SA	AI	577	436	1267	145	1412	4	138	33	1980	2155	46800
550	405700	SA	AI	959	901	2345	0	2345	11	5	0	44	60	46800
102	405800	SA	AI	1606	1320	4777	0	4777	0	24	8	19	51	48500
101	405900	SA	AI	793	577	2419	0	2419	0	0	6	146	152	48000
546	405900	SA	AI	713	544	2131	45	2176	27	4	25	186	242	48000
547	405900	SA	AI	388	311	1179	4	1183	44	44	60	102	250	48000
548	405900	SA	AI	494	439	1508	0	1508	0	15	4	11	30	48000
739	405900	SA	AI	195	167	596	1	597	33	0	16	55	104	48000
104	406200	SA	AI	1359	1060	4480	79	4559	7	144	113	375	639	41800
552	406200	SA	AI	834	693	2794	5	2799	0	42	16	25	83	41800
553	406200	SA	AI	223	177	750	0	750	0	41	29	18	88	41800
103	406300	SA	AI	1537	1199	4277	133	4410	11	33	33	197	274	51100
551	406400	SA	AI	804	679	1909	367	2276	16	8	0	377	401	68900
			AI Total	23725	19848	57330	972	58302	350	1346	765	5358	7819	
95	406000	SA	BI	20	17	33	0	33	106	119	63	80	368	36100
537	406000	SA	BI	523	560	1300	0	1300	5	227	64	448	744	36100
538	406000	SA	BI	487	359	1247	0	1247	99	366	85	168	718	36100
544	406000	SA	BI	36	37	60	10	70	180	468	138	600	1386	36100
545	406000	SA	BI	96	67	239	0	239	102	285	85	93	565	36100
740	406000	SA	BI	36	21	91	0	91	61	169	39	113	382	36100
763	406000	SA	BI	227	190	566	0	566	32	141	81	160	414	36100
			BI Total	1425	1251	3536	10	3546	585	1775	555	1662	4577	
		SA Total		**25150**	**21099**	**60866**	**982**	**61848**	**935**	**3121**	**1320**	**7020**	**12396**	
554	406200	FV	AI	828	698	2632	146	2778	15	34	94	579	722	41800
110	406500	FV	AI	1205	1057	3362	6	3368	0	35	27	93	155	56000
567	406500	FV	AI	1032	803	2796	89	2885	33	24	75	254	386	56000
112	406600	FV	AI	2165	1670	5225	18	5243	0	42	21	234	297	58400
570	406600	FV	AI	1057	930	2523	39	2562	44	62	101	223	430	58400
117	407000	FV	AI	2132	1706	5463	134	5597	0	12	19	251	282	53300
576	407000	FV	AI	402	380	1035	20	1055	4	15	92	82	193	53300
111	407100	FV	AI	755	520	1956	0	1956	0	11	121	26	158	53200
568	407100	FV	AI	1479	1010	3833	0	3833	0	83	11	91	185	53200
569	407100	FV	AI	997	807	2551	36	2587	0	27	4	35	66	53200
109	407200	FV	AI	1731	1168	4511	229	4740	0	89	227	425	741	48800
566	407200	FV	AI	839	594	2264	35	2299	0	50	181	122	353	48800
			AI Total	14622	11343	38151	752	38903	96	484	973	2415	3968	
100	406000	FV	BI	43	70	108	0	108	427	674	28	130	1259	36100
105	406100	FV	BI	706	415	1576	112	1688	88	197	107	226	618	43500
345	406100	FV	BI	88	58	209	0	209	500	128	277	110	1015	43500
555	406100	FV	BI	41	31	98	1	99	20	16	380	171	587	43500
556	406100	FV	BI	462	330	1082	22	1104	60	245	180	127	612	43500
557	406100	FV	BI	254	161	608	0	608	107	55	82	147	391	43500
621	406100	FV	BI	248	207	588	5	593	209	244	78	153	684	43500
			BI Total	1842	1272	4269	140	4409	1411	1559	1132	1064	5166	
		FV Total		**16464**	**12615**	**42420**	**892**	**43312**	**1507**	**2043**	**2105**	**3479**	**9134**	
119	407400	CE	AI	839	672	2460	32	2492	16	43	4	17	80	47500
579	407400	CE	AI	560	443	1636	29	1665	49	38	71	85	243	47500
120	407500	CE	AI	681	622	2214	7	2221	11	11	15	26	63	44400
580	407500	CE	AI	388	366	1193	73	1266	0	0	0	8	8	44400
581	407500	CE	AI	276	262	899	2	901	0	4	20	45	69	44400
118	407600	CE	AI	973	826	2247	44	2291	0	4	0	97	101	58600
577	407600	CE	AI	1139	755	2680	3	2683	0	0	22	141	163	58600
578	407600	CE	AI	725	545	1652	55	1707	0	11	0	83	94	58600
121	407700	CE	AI	1369	989	2591	7	2598	0	13	16	79	108	68200
582	407700	CE	AI	634	496	1198	5	1203	0	14	0	40	54	68200
583	407700	CE	AI	421	280	770	28	798	0	4	0	19	23	68200
122	407800	CE	AI	318	43	116	418	534	27	27	88	834	976	66000
584	407800	CE	AI	1142	743	1908	11	1919	4	49	38	55	146	66000

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
123	408200	CE	AI	1103	976	2316	0	2316	0	11	11	60	82	64200
743	408200	CE	AI	986	747	2065	7	2072	0	55	0	22	77	64200
346	408600	CE	AI	674	720	2425	6	2431	0	10	22	52	84	45000
623	408600	CE	AI	281	317	1015	0	1015	0	6	0	8	14	45000
624	408600	CE	AI	367	436	1316	6	1322	0	0	0	50	50	45000
625	408600	CE	AI	37	51	134	0	134	0	193	271	488	952	45000
626	408600	CE	AI	91	117	330	0	330	0	16	18	17	51	45000
124	408700	CE	AI	510	514	1379	22	1401	0	33	4	176	213	55100
585	408700	CE	AI	817	746	2225	20	2245	4	53	0	49	106	55100
586	408700	CE	AI	658	516	1726	84	1810	0	12	0	12	24	55100
587	408700	CE	AI	744	553	2048	0	2048	4	25	27	85	141	55100
			AI Total	15733	12735	38543	859	39402	115	632	627	2548	3922	
108	407300	CE	BI	78	101	211	0	211	624	859	353	137	1973	39300
563	407300	CE	BI	123	107	332	0	332	212	224	149	69	654	39300
564	407300	CE	BI	444	286	1197	6	1203	30	65	69	228	392	39300
565	407300	CE	BI	282	209	697	67	764	214	357	50	75	696	39300
125	408800	CE	BI	272	330	1258	2	1260	33	174	53	82	342	31200
588	408800	CE	BI	405	569	1856	18	1874	0	4	12	31	47	31200
589	408800	CE	BI	312	374	1445	0	1445	0	0	20	147	167	31200
590	408800	CE	BI	128	202	595	0	595	66	230	3	33	332	31200
129	409000	CE	BI	0	0	0	0	0	0	10	150	400	560	0
			BI Total	2044	2178	7591	93	7684	1179	1923	859	1202	5163	
		CE Total		**17777**	**14913**	**46134**	**952**	**47086**	**1294**	**2555**	**1486**	**3750**	**9085**	
606	408300	EH	AI	1348	1090	2787	0	2787	31	26	4	158	219	77600
744	408300	EH	AI	472	312	968	8	976	0	4	19	45	68	77600
745	408300	EH	AI	501	331	1031	5	1036	0	0	19	46	65	77600
134	408400	EH	AI	596	646	1936	11	1947	0	120	0	15	135	46200
605	408400	EH	AI	561	545	1833	2	1835	0	55	22	30	107	46200
133	408500	EH	AI	615	553	2028	5	2033	0	0	4	87	91	54400
602	408500	EH	AI	436	412	1441	0	1441	0	16	0	22	38	54400
603	408500	EH	AI	342	376	1130	0	1130	0	0	11	82	93	54400
604	408500	EH	AI	213	222	703	0	703	0	0	0	16	16	54400
347	409600	EH	AI	331	320	1190	10	1200	0	0	22	89	111	46900
627	409600	EH	AI	351	360	1272	0	1272	0	0	4	11	15	46900
628	409600	EH	AI	408	402	1477	1	1478	0	0	11	11	22	46900
629	409600	EH	AI	355	386	1285	0	1285	0	0	16	18	34	46900
137	409700	EH	AI	348	319	1075	34	1109	0	11	0	49	60	41400
758	409700	EH	AI	587	510	1854	17	1871	0	0	4	0	4	41400
759	409700	EH	AI	336	362	1072	0	1072	0	4	0	110	114	41400
760	409700	EH	AI	363	364	1150	6	1156	0	4	0	0	4	41400
135	409800	EH	AI	809	595	1664	25	1689	0	22	16	118	156	72200
752	409800	EH	AI	748	586	1552	9	1561	0	27	4	108	139	72200
136	410100	EH	AI	268	196	589	14	603	0	85	65	196	346	67800
761	410100	EH	AI	970	752	2142	39	2181	0	39	0	18	57	67800
138	410200	EH	AI	504	461	1405	0	1405	0	0	91	67	158	57200
607	410200	EH	AI	379	343	1038	19	1057	0	4	8	9	21	57200
608	410200	EH	AI	391	334	1088	0	1088	0	0	0	0	0	57200
609	410300	EH	AI	457	391	1572	10	1582	0	0	0	3	3	44100
610	410300	EH	AI	215	216	744	2	746	16	22	0	44	82	44100
637	410300	EH	AI	262	233	907	0	907	0	38	11	104	153	44100
638	410300	EH	AI	143	149	493	0	493	0	0	0	118	118	61100
139	410400	EH	AI	559	407	1361	0	1361	16	118	104	98	336	61100
611	410400	EH	AI	426	294	1038	0	1038	0	11	0	16	27	61100
612	410400	EH	AI	397	351	967	0	967	0	0	0	11	11	61100
			AI Total	14691	12818	40792	217	41009	63	606	435	1699	2803	
131	408900	EH	BI	140	239	675	0	675	505	367	41	187	1100	37400
600	408900	EH	BI	270	323	1269	34	1303	4	11	0	27	42	37400
741	408900	EH	BI	282	449	1361	0	1361	0	0	14	22	36	37400
130	409000	EH	BI	475	531	1917	19	1936	482	1043	40	317	1882	36700
596	409000	EH	BI	337	414	1372	0	1372	148	846	202	817	2013	36700
599	409000	EH	BI	1	0	0	3	3	50	570	376	851	1847	0
142	409100	EH	BI	736	620	2163	0	2163	38	31	0	27	96	48100
617	409200	EH	BI	932	837	3111	0	3111	44	33	99	219	395	47600
141	409300	EH	BI	405	360	1296	25	1321	346	118	66	121	651	44000
615	409300	EH	BI	460	396	1466	34	1500	0	4	20	28	52	44000
616	409300	EH	BI	309	253	1001	6	1007	38	31	0	93	162	44000
762	409300	EH	BI	510	466	1664	0	1664	0	0	16	35	51	44000
140	409400	EH	BI	561	555	2121	0	2121	434	456	70	190	1150	39700
613	409400	EH	BI	217	210	818	0	818	0	15	2	25	42	39700
614	409400	EH	BI	401	319	1350	166	1516	0	0	40	10	50	39700
132	409500	EH	BI	307	334	1233	0	1233	517	587	31	38	1173	42700
601	409500	EH	BI	315	325	1270	0	1270	16	0	4	109	129	42700
742	409500	EH	BI	262	260	1052	0	1052	0	0	0	38	38	42700
			BI Total	6920	6891	25139	287	25426	2622	4112	1021	3154	10909	

TAZ	CENSUS TRACT	PLAN DIST /a/	SUB AREA /b/	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
		EH Total		**21611**	**19709**	**65931**	**504**	**66435**	**2685**	**4718**	**1456**	**4853**	**13712**	
127	409000	AP		0	0	0	0	0	0	7273	262	100	7635	0
128	409000	AP		1	1	4	0	4	306	400	125	504	1335	36700
595	409000	AP		0	0	0	0	0	313	671	229	765	1978	0
597	409000	AP		3	0	0	12	12	647	2777	250	2903	6577	0
598	409000	AP		0	0	0	0	0	0	50	0	0	50	0
633	409000	AP		0	0	0	0	0	0	920	0	150	1070	0
622	407300	AP		2	3	6	0	6	250	780	327	210	1567	39300
		AP Total		**6**	**4**	**10**	**12**	**22**	**1516**	**12871**	**1193**	**4632**	**20212**	
		CE, EH, AP Total		**39394**	**34626**	**112075**	**1468**	**113543**	**5495**	**20144**	**4135**	**13235**	**43009**	
		Grand Total		**81008**	**68340**	**215361**	**3342**	**218703**	**7937**	**25308**	**7560**	**23734**	**64539**	

Notes:

/a/ See map in Figure E-1.

/b/ Identifies Planning Area locations above (AI) or below (BI) International Blvd.

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.

TABLE D-4b: 2005 CUMULATIVE SCENARIO FOR SURROUNDING AREAS OF EAST OAKLAND - MARCH 2006														
	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
98	405200	SA	AI	982	743	1523	0	1523	5	17	4	260	286	68900
541	405200	SA	AI	1074	893	1661	3	1664	1	27	49	367	444	68900
542	405200	SA	AI	1198	853	1856	0	1856	2	5	11	73	91	68900
96	405300	SA	AI	1611	1632	2970	35	3005	5	94	41	189	329	51400
539	405300	SA	AI	1617	1553	3058	0	3058	21	82	224	211	538	51400
97	405400	SA	AI	837	699	2175	7	2182	94	35	76	90	295	47000
540	405400	SA	AI	1009	966	2605	23	2628	11	60	24	88	183	47000
737	405400	SA	AI	639	426	1660	7	1667	6	272	37	230	545	47000
738	405400	SA	AI	765	706	1875	118	1993	0	198	4	87	289	47000
543	405500	SA	AI	947	925	2180	0	2180	22	11	8	38	79	49900
764	405500	SA	AI	873	616	2011	0	2011	0	11	0	51	62	49900
99	405600	SA	AI	1843	1438	3774	0	3774	20	42	4	158	224	59400
549	405700	SA	AI	581	436	1281	145	1426	4	140	33	1991	2168	47700
550	405700	SA	AI	966	901	2370	0	2370	11	5	0	44	60	47700
102	405800	SA	AI	1617	1320	4828	0	4828	0	24	8	20	52	50200
101	405900	SA	AI	798	577	2444	0	2444	0	0	6	146	152	48800
546	405900	SA	AI	718	544	2153	45	2198	26	4	25	189	244	48800
547	405900	SA	AI	416	328	1229	4	1233	44	45	65	105	259	50200
548	405900	SA	AI	497	439	1524	0	1524	0	15	4	11	30	48800
739	405900	SA	AI	197	167	602	1	603	33	0	16	55	104	48800
104	406200	SA	AI	1369	1060	4528	79	4607	7	144	115	377	643	43400
552	406200	SA	AI	840	693	2824	5	2829	0	42	16	25	83	43500
553	406200	SA	AI	225	177	758	0	758	0	41	29	18	88	43500
103	406300	SA	AI	1548	1199	4322	133	4455	11	33	33	200	277	54700
551	406400	SA	AI	809	679	1930	367	2297	16	8	0	382	406	71200
			AI Total	23976	19970	58141	972	59113	339	1355	832	5405	7931	
95	406000	SA	BI	20	17	33	0	33	106	59	58	166	389	37300
537	406000	SA	BI	552	618	1415	0	1415	3	227	69	453	752	37300
538	406000	SA	BI	507	359	1269	0	1269	91	366	95	174	726	37300
544	406000	SA	BI	37	37	61	10	71	180	470	138	658	1446	37300
545	406000	SA	BI	97	67	243	0	243	96	285	85	93	559	37300
740	406000	SA	BI	36	21	93	0	93	58	169	39	113	379	37300
763	406000	SA	BI	229	190	576	0	576	30	141	89	162	422	37300
			BI Total	1478	1309	3690	10	3700	564	1717	573	1819	4673	
		SA Total		**25454**	**21279**	**61831**	**982**	**62813**	**903**	**3072**	**1405**	**7224**	**12604**	
554	406200	FV	AI	834	698	2660	146	2806	15	34	99	579	727	43500
110	406500	FV	AI	1218	1061	3410	6	3416	0	35	27	94	156	58400
567	406500	FV	AI	1039	803	2826	89	2915	33	24	78	261	396	58400
112	406600	FV	AI	2179	1670	5280	18	5298	0	36	21	236	293	60400
570	406600	FV	AI	1065	930	2550	39	2589	42	62	102	224	430	60400
117	407000	FV	AI	2147	1706	5521	134	5655	0	12	19	253	284	55600
576	407000	FV	AI	405	380	1046	20	1066	4	15	93	83	195	55600
111	407100	FV	AI	760	520	1977	0	1977	0	11	121	27	159	58400
568	407100	FV	AI	1489	1010	3874	0	3874	0	83	13	95	191	58400
569	407100	FV	AI	1004	807	2579	36	2615	0	27	4	35	66	58400
109	407200	FV	AI	1743	1168	4559	229	4788	0	89	233	431	753	52300
566	407200	FV	AI	845	594	2288	35	2323	0	50	189	124	363	52300
			AI Total	14728	11347	38570	752	39322	94	478	999	2442	4013	
100	406000	FV	BI	44	70	110	0	110	420	681	28	135	1264	37300
105	406100	FV	BI	828	488	1777	112	1889	96	182	107	321	706	49500
345	406100	FV	BI	88	58	212	0	212	500	128	385	110	1123	44800
555	406100	FV	BI	42	31	100	1	101	20	16	380	201	617	44800
556	406100	FV	BI	537	396	1221	22	1243	52	255	208	257	772	48400
557	406100	FV	BI	256	161	618	0	618	105	56	93	147	401	44800
621	406100	FV	BI	494	390	951	5	956	189	196	68	153	606	65100
			BI Total	2289	1594	4989	140	5129	1382	1514	1269	1324	5489	
		FV Total		**17017**	**12941**	**43559**	**892**	**44451**	**1476**	**1992**	**2268**	**3766**	**9502**	
119	407400	CE	AI	845	672	2486	32	2518	16	43	58	26	143	50500
579	407400	CE	AI	564	443	1654	29	1683	49	38	83	100	270	50500
120	407500	CE	AI	686	622	2252	7	2259	6	11	15	29	61	48000
580	407500	CE	AI	390	366	1213	73	1286	0	0	0	8	8	48000
581	407500	CE	AI	290	322	986	2	988	0	4	20	45	69	48000
118	407600	CE	AI	980	826	2271	44	2315	0	4	0	98	102	61900
577	407600	CE	AI	1147	755	2709	3	2712	0	0	22	142	164	61900
578	407600	CE	AI	730	545	1670	55	1725	0	11	0	83	94	61900
121	407700	CE	AI	1378	989	2619	7	2626	0	13	16	79	108	72200
582	407700	CE	AI	638	496	1211	5	1216	0	14	0	40	54	72200
583	407700	CE	AI	424	280	778	28	806	0	4	0	20	24	72200
122	407800	CE	AI	321	43	117	418	535	27	27	88	842	984	72500
584	407800	CE	AI	1152	744	1931	11	1942	4	50	47	56	157	72500

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
123	408200	CE	AI	1110	976	2340	0	2340	0	11	11	63	85	66700
743	408200	CE	AI	993	747	2087	7	2094	0	55	0	25	80	66700
346	408600	CE	AI	679	720	2467	6	2473	0	10	22	52	84	47100
623	408600	CE	AI	283	317	1033	0	1033	0	6	0	8	14	47100
624	408600	CE	AI	370	436	1339	6	1345	0	0	0	50	50	47100
625	408600	CE	AI	51	70	187	0	187	0	343	441	568	1352	47100
626	408600	CE	AI	143	182	522	0	522	0	16	18	17	51	47100
124	408700	CE	AI	513	514	1399	22	1421	0	33	4	176	213	56500
585	408700	CE	AI	822	746	2257	20	2277	4	53	0	49	106	56500
586	408700	CE	AI	663	516	1751	84	1835	0	12	0	12	24	56500
587	408700	CE	AI	816	602	2262	0	2262	4	25	27	85	141	56500
			AI Total	15988	12929	39541	859	40400	110	783	872	2673	4438	
108	407300	CE	BI	78	101	213	0	213	644	919	353	137	2053	40500
563	407300	CE	BI	124	107	336	0	336	197	231	154	74	656	40500
564	407300	CE	BI	448	286	1211	6	1217	30	65	69	228	392	40500
565	407300	CE	BI	284	209	705	67	772	214	357	50	75	696	40500
125	408800	CE	BI	324	272	997	2	999	25	159	56	62	302	31600
588	408800	CE	BI	408	569	1876	18	1894	0	4	12	31	47	31600
589	408800	CE	BI	314	374	1461	0	1461	0	0	20	147	167	31600
590	408800	CE	BI	129	202	601	0	601	66	250	3	33	352	31600
129	409000	CE	BI	0	0	0	0	0	0	10	150	400	560	0
			BI Total	2109	2120	7400	93	7493	1176	1995	867	1187	5225	
		CE Total		**18097**	**15049**	**46941**	**952**	**47893**	**1286**	**2778**	**1739**	**3860**	**9663**	
606	408300	EH	AI	1357	1090	2816	0	2816	31	26	4	160	221	83200
744	408300	EH	AI	476	312	978	8	986	0	4	19	45	68	83200
745	408300	EH	AI	505	331	1042	5	1047	0	0	19	46	65	83200
134	408400	EH	AI	600	646	1956	11	1967	0	120	0	15	135	46900
605	408400	EH	AI	565	545	1852	2	1854	0	55	22	30	107	46900
133	408500	EH	AI	619	553	2050	5	2055	0	0	4	91	95	54900
602	408500	EH	AI	442	415	1467	0	1467	0	16	0	23	39	54900
603	408500	EH	AI	345	376	1142	0	1142	0	0	11	82	93	54900
604	408500	EH	AI	214	222	711	0	711	0	0	0	16	16	54900
347	409600	EH	AI	333	320	1203	10	1213	0	-2	18	88	104	51600
627	409600	EH	AI	354	360	1286	0	1286	0	0	4	11	15	51600
628	409600	EH	AI	411	402	1493	1	1494	0	0	11	11	22	51600
629	409600	EH	AI	357	386	1299	0	1299	0	0	16	18	34	51600
137	409700	EH	AI	351	319	1095	34	1129	0	11	0	49	60	45700
758	409700	EH	AI	713	586	2116	17	2133	0	0	4	0	4	48500
759	409700	EH	AI	338	362	1092	0	1092	0	4	0	110	114	45700
760	409700	EH	AI	365	364	1171	6	1177	0	4	0	0	4	45700
135	409800	EH	AI	830	606	1713	25	1738	0	22	16	118	156	74100
752	409800	EH	AI	753	586	1568	9	1577	0	27	4	108	139	74100
136	410100	EH	AI	269	196	595	14	609	0	85	65	196	346	70300
761	410100	EH	AI	976	752	2164	39	2203	0	39	0	18	57	70300
138	410200	EH	AI	508	461	1420	0	1420	0	0	94	70	164	59000
607	410200	EH	AI	382	343	1049	19	1068	0	4	8	9	21	59000
608	410200	EH	AI	415	352	1159	0	1159	0	0	0	0	0	59000
609	410300	EH	AI	460	391	1589	10	1599	0	0	0	3	3	49200
610	410300	EH	AI	217	216	752	2	754	12	23	1	44	80	49200
637	410300	EH	AI	263	233	917	0	917	0	38	11	104	153	49200
638	410300	EH	AI	144	149	498	0	498	0	0	0	118	118	49200
139	410400	EH	AI	968	660	1983	0	1983	10	120	196	148	474	71500
611	410400	EH	AI	429	294	1049	0	1049	0	11	0	16	27	64800
612	410400	EH	AI	400	351	978	0	978	0	0	0	11	11	64800
			AI Total	15359	13179	42203	217	42420	53	607	527	1758	2945	
131	408900	EH	BI	141	239	685	0	685	455	397	41	207	1100	39300
600	408900	EH	BI	292	347	1383	34	1417	0	10	1	28	39	39300
741	408900	EH	BI	285	451	1387	0	1387	0	0	14	23	37	39300
130	409000	EH	BI	479	531	1944	19	1963	482	1167	40	327	2016	37900
596	409000	EH	BI	339	414	1391	0	1391	148	856	199	958	2161	37900
599	409000	EH	BI	0	0	0	3	3	195	620	376	901	2092	0
142	409100	EH	BI	740	620	2185	0	2185	31	32	0	34	97	55200
617	409200	EH	BI	982	876	3289	0	3289	44	33	99	219	395	51800
141	409300	EH	BI	408	360	1315	25	1340	346	124	66	121	657	48900
615	409300	EH	BI	520	445	1672	34	1706	0	4	20	28	52	48900
616	409300	EH	BI	311	253	1016	6	1022	25	30	0	93	148	48900
762	409300	EH	BI	513	466	1689	0	1689	0	0	16	35	51	48900
140	409400	EH	BI	565	555	2143	0	2143	399	496	70	200	1165	43900
613	409400	EH	BI	218	210	827	0	827	0	15	2	25	42	43900
614	409400	EH	BI	405	320	1368	166	1534	0	0	40	10	50	43900
132	409500	EH	BI	309	334	1247	0	1247	527	612	31	38	1208	44100
601	409500	EH	BI	318	325	1284	0	1284	16	0	4	112	132	44100
742	409500	EH	BI	264	260	1064	0	1064	0	0	0	38	38	44100
			BI Total	7089	7006	25889	287	26176	2668	4396	1019	3397	11480	

TAZ	CENSUS TRACT	PLAN DIST /a/	SUB AREA /b/	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
		EH Total		**22448**	**20185**	**68092**	**504**	**68596**	**2721**	**5003**	**1546**	**5155**	**14425**	
127	409000	AP		0	0	0	0	0	0	7854	282	244	8380	0
128	409000	AP		1	1	4	0	4	404	766	125	818	2113	37900
595	409000	AP		0	0	0	0	0	303	671	204	900	2078	0
597	409000	AP		0	0	0	12	12	897	2821	632	3514	7864	0
598	409000	AP		0	0	0	0	0	0	50	0	0	50	0
633	409000	AP		0	0	0	0	0	0	1020	0	150	1170	0
622	407300	AP		2	3	6	0	6	240	787	337	220	1584	40500
		AP Total		**3**	**4**	**10**	**12**	**22**	**1844**	**13969**	**1580**	**5846**	**23239**	
		CE, EH, AP Total		**40548**	**35238**	**115043**	**1468**	**116511**	**5851**	**21750**	**4865**	**14861**	**47327**	
		Grand Total		**83019**	**69458**	**220433**	**3342**	**223775**	**8230**	**26814**	**8538**	**25851**	**69433**	

Notes:

/a/ See map in Figure E-1.

/b/ Identifies Planning Area locations above (AI) or below (BI) International Blvd.

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.

TABLE D-4c: 2010 CUMULATIVE SCENARIO FOR SURROUNDING AREAS OF EAST OAKLAND - MARCH 2006														
	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
98	405200	SA	AI	1024	743	1521	0	1521	5	17	4	268	294	71900
541	405200	SA	AI	1120	893	1660	3	1663	1	27	49	373	450	71900
542	405200	SA	AI	1249	853	1855	0	1855	2	5	11	74	92	71900
96	405300	SA	AI	1680	1632	2967	36	3003	5	98	41	193	337	53500
539	405300	SA	AI	1685	1553	3055	0	3055	21	85	244	221	571	53500
97	405400	SA	AI	936	741	2265	7	2272	94	35	113	92	334	50300
540	405400	SA	AI	1052	966	2602	23	2625	11	60	24	90	185	49100
737	405400	SA	AI	666	426	1658	7	1665	6	272	45	235	558	49100
738	405400	SA	AI	798	706	1873	120	1993	0	198	4	88	290	49100
543	405500	SA	AI	987	925	2177	0	2177	22	11	8	39	80	51200
764	405500	SA	AI	910	616	2008	0	2008	0	11	0	51	62	51200
99	405600	SA	AI	1982	1484	3889	0	3889	20	42	4	160	226	61000
549	405700	SA	AI	605	436	1279	147	1426	4	140	33	2004	2181	49100
550	405700	SA	AI	1007	901	2367	0	2367	11	5	0	45	61	49100
102	405800	SA	AI	1686	1320	4825	0	4825	0	24	8	21	53	51600
101	405900	SA	AI	832	577	2441	0	2441	0	0	6	148	154	50400
546	405900	SA	AI	748	544	2151	46	2197	26	4	25	192	247	50400
547	405900	SA	AI	432	328	1227	4	1231	44	45	67	105	261	51900
548	405900	SA	AI	518	439	1522	0	1522	0	15	4	11	30	50400
739	405900	SA	AI	205	167	601	1	602	33	0	16	56	105	50400
104	406200	SA	AI	1427	1060	4524	80	4604	7	144	118	382	651	44900
552	406200	SA	AI	876	693	2822	5	2827	0	42	16	27	85	44900
553	406200	SA	AI	234	177	757	0	757	0	41	29	18	88	44900
103	406300	SA	AI	1639	1218	4387	135	4522	11	33	41	200	285	56700
551	406400	SA	AI	844	679	1927	373	2300	16	8	0	387	411	73400
			AI Total	25142	20077	58360	987	59347	339	1362	910	5480	8091	
95	406000	SA	BI	1336	1110	1892	0	1892	91	16	175	220	502	97600
537	406000	SA	BI	604	642	1443	0	1443	3	227	74	458	762	40400
538	406000	SA	BI	529	359	1258	0	1258	83	366	105	180	734	38600
544	406000	SA	BI	39	37	61	10	71	180	470	178	735	1563	38600
545	406000	SA	BI	101	67	241	0	241	96	285	115	93	589	38600
740	406000	SA	BI	38	21	92	0	92	58	169	42	117	386	38600
763	406000	SA	BI	239	190	571	0	571	28	141	97	166	432	38600
			BI Total	2886	2426	5558	10	5568	539	1674	786	1969	4968	
		SA Total		**28028**	**22503**	**63918**	**997**	**64915**	**878**	**3036**	**1696**	**7449**	**13059**	
554	406200	FV	AI	916	735	2799	148	2947	15	34	99	643	791	44900
110	406500	FV	AI	1270	1061	3406	6	3412	0	35	27	95	157	60300
567	406500	FV	AI	1083	803	2822	90	2912	33	24	81	268	406	60300
112	406600	FV	AI	2272	1670	5275	18	5293	0	36	21	238	295	62300
570	406600	FV	AI	1110	930	2547	40	2587	40	62	104	226	432	62300
117	407000	FV	AI	2238	1706	5515	136	5651	0	12	19	255	286	57400
576	407000	FV	AI	422	380	1045	20	1065	4	15	95	86	200	57400
111	407100	FV	AI	792	520	1975	0	1975	0	11	121	28	160	60400
568	407100	FV	AI	1552	1010	3870	0	3870	0	83	15	99	197	60400
569	407100	FV	AI	1047	807	2575	37	2612	0	27	4	35	66	60400
109	407200	FV	AI	1840	1182	4588	233	4821	0	89	243	441	773	54700
566	407200	FV	AI	884	596	2293	36	2329	0	50	279	134	463	54400
			AI Total	15426	11400	38710	764	39474	92	478	1108	2548	4226	
100	406000	FV	BI	46	70	109	0	109	420	681	28	140	1269	38600
105	406100	FV	BI	1381	829	2601	114	2715	96	178	77	334	685	60200
345	406100	FV	BI	92	58	210	0	210	500	148	385	110	1143	46900
555	406100	FV	BI	45	32	102	1	103	20	16	380	201	617	46900
556	406100	FV	BI	1186	826	2122	22	2144	52	253	208	262	775	65500
557	406100	FV	BI	310	188	676	0	676	105	66	153	168	492	51500
621	406100	FV	BI	659	506	1169	5	1174	159	166	68	153	546	73600
			BI Total	3719	2509	6989	142	7131	1352	1508	1299	1368	5527	
		FV Total		**19145**	**13909**	**45699**	**906**	**46605**	**1444**	**1986**	**2407**	**3916**	**9753**	
119	407400	CE	AI	895	682	2521	32	2553	16	43	58	26	143	52500
579	407400	CE	AI	588	443	1652	29	1681	49	38	123	100	310	52500
120	407500	CE	AI	715	622	2249	7	2256	6	11	15	29	61	50300
580	407500	CE	AI	407	366	1212	74	1286	0	0	0	8	8	50300
581	407500	CE	AI	334	351	1086	2	1088	0	4	20	45	69	50300
118	407600	CE	AI	1021	826	2268	45	2313	0	4	0	98	102	64000
577	407600	CE	AI	1195	755	2706	3	2709	0	0	22	142	164	64000
578	407600	CE	AI	760	545	1668	56	1724	0	11	0	83	94	64000
121	407700	CE	AI	1437	989	2616	7	2623	0	13	16	79	108	74300
582	407700	CE	AI	665	496	1210	5	1215	0	14	0	40	54	74300
583	407700	CE	AI	442	280	777	28	805	0	4	0	20	24	74300
122	407800	CE	AI	334	43	117	424	541	27	27	88	842	984	76200
584	407800	CE	AI	1201	744	1929	11	1940	4	51	53	60	168	76200

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
123	408200	CE	AI	1157	976	2338	0	2338	0	11	11	67	89	68500
743	408200	CE	AI	1035	747	2085	7	2092	0	55	0	29	84	68500
346	408600	CE	AI	707	720	2458	6	2464	0	10	22	52	84	48400
623	408600	CE	AI	295	317	1029	0	1029	0	6	0	8	14	48400
624	408600	CE	AI	385	436	1334	6	1340	0	0	0	50	50	48400
625	408600	CE	AI	54	70	186	0	186	0	359	481	588	1428	48400
626	408600	CE	AI	149	182	520	0	520	0	16	20	19	55	48400
124	408700	CE	AI	535	514	1397	22	1419	0	33	4	182	219	58300
585	408700	CE	AI	857	746	2255	20	2275	4	53	0	52	109	58300
586	408700	CE	AI	691	516	1749	85	1834	0	12	0	12	24	58300
587	408700	CE	AI	850	602	2259	0	2259	4	25	27	85	141	58300
			AI Total	16709	12968	39621	869	40490	110	800	960	2716	4586	
108	407300	CE	BI	81	101	213	0	213	669	974	353	137	2133	42600
563	407300	CE	BI	129	107	335	0	335	197	231	154	74	656	42600
564	407300	CE	BI	467	286	1210	6	1216	30	65	69	228	392	42600
565	407300	CE	BI	296	209	704	68	772	214	377	50	75	716	42600
125	408800	CE	BI	802	617	2069	2	2071	25	159	56	97	337	36100
588	408800	CE	BI	425	569	1874	18	1892	0	4	12	31	47	33100
589	408800	CE	BI	328	375	1463	0	1463	0	0	20	147	167	33100
590	408800	CE	BI	135	203	604	0	604	66	270	3	33	372	33100
129	409000	CE	BI	0	0	0	0	0	0	10	150	400	560	0
			BI Total	2663	2467	8472	94	8566	1201	2090	867	1222	5380	
		CE Total		**19372**	**15435**	**48093**	**963**	**49056**	**1311**	**2890**	**1827**	**3938**	**9966**	
606	408300	EH	AI	1414	1090	2813	0	2813	31	26	4	162	223	86000
744	408300	EH	AI	496	312	977	8	985	0	4	19	45	68	86000
745	408300	EH	AI	526	331	1041	5	1046	0	0	19	46	65	86000
134	408400	EH	AI	626	646	1954	11	1965	0	120	0	15	135	48100
605	408400	EH	AI	589	545	1850	2	1852	0	55	22	30	107	48100
133	408500	EH	AI	645	553	2047	5	2052	0	0	4	91	95	56500
602	408500	EH	AI	461	415	1465	0	1465	0	16	0	23	39	56500
603	408500	EH	AI	359	376	1141	0	1141	0	0	11	82	93	56500
604	408500	EH	AI	223	222	710	0	710	0	0	0	16	16	56500
347	409600	EH	AI	347	320	1202	10	1212	0	-2	18	88	104	53800
627	409600	EH	AI	369	360	1285	0	1285	0	0	4	11	15	53800
628	409600	EH	AI	428	402	1492	1	1493	0	0	11	11	22	53800
629	409600	EH	AI	372	386	1298	0	1298	0	0	16	18	34	53800
137	409700	EH	AI	366	319	1092	35	1127	0	11	0	49	60	47700
758	409700	EH	AI	743	590	2126	17	2143	0	0	4	0	4	50600
759	409700	EH	AI	353	362	1089	0	1089	0	4	0	110	114	47700
760	409700	EH	AI	381	364	1168	6	1174	0	4	0	0	4	47700
135	409800	EH	AI	864	606	1705	25	1730	0	22	16	118	156	76500
752	409800	EH	AI	785	586	1562	9	1571	0	27	4	108	139	76500
136	410100	EH	AI	315	220	667	14	681	0	85	333	196	614	72800
761	410100	EH	AI	1016	752	2161	40	2201	0	39	0	18	57	72800
138	410200	EH	AI	586	510	1566	0	1566	0	0	98	72	170	60900
607	410200	EH	AI	398	343	1046	19	1065	0	4	8	9	21	60900
608	410200	EH	AI	432	352	1155	0	1155	0	0	0	0	0	60900
609	410300	EH	AI	480	391	1587	10	1597	0	0	0	3	3	51700
610	410300	EH	AI	226	216	751	2	753	12	23	1	44	80	51700
637	410300	EH	AI	275	233	916	0	916	0	38	11	104	153	51700
638	410300	EH	AI	150	149	498	0	498	0	0	0	118	118	51700
139	410400	EH	AI	992	660	1982	0	1982	10	120	201	158	489	74200
611	410400	EH	AI	447	294	1048	0	1048	0	11	0	16	27	67100
612	410400	EH	AI	417	351	977	0	977	0	0	0	11	11	67100
			AI Total	16081	13256	42371	219	42590	53	607	804	1772	3236	
131	408900	EH	BI	146	239	681	0	681	455	417	41	217	1130	41000
600	408900	EH	BI	309	353	1400	132	1532	0	10	1	28	39	41000
741	408900	EH	BI	297	451	1380	0	1380	0	0	14	23	37	41000
130	409000	EH	BI	499	531	1941	19	1960	482	1300	40	383	2205	40800
596	409000	EH	BI	354	414	1389	0	1389	148	856	199	1050	2253	40800
599	409000	EH	BI	0	0	0	3	3	220	630	643	921	2414	0
142	409100	EH	BI	772	620	2184	0	2184	31	32	0	34	97	58100
617	409200	EH	BI	1089	923	3444	0	3444	44	33	99	219	395	55400
141	409300	EH	BI	425	360	1309	25	1334	346	124	66	121	657	51600
615	409300	EH	BI	543	445	1663	35	1698	0	4	20	28	52	51600
616	409300	EH	BI	326	254	1015	6	1021	25	30	0	93	148	51600
762	409300	EH	BI	535	466	1680	0	1680	0	0	16	35	51	51600
140	409400	EH	BI	1151	906	2973	0	2973	399	520	70	200	1189	59400
613	409400	EH	BI	228	210	822	0	822	0	15	2	25	42	46800
614	409400	EH	BI	422	320	1360	169	1529	0	0	40	12	52	46800
132	409500	EH	BI	323	334	1246	0	1246	527	652	31	38	1248	46600
601	409500	EH	BI	331	325	1283	0	1283	16	0	4	116	136	46600
742	409500	EH	BI	275	260	1063	0	1063	0	0	0	38	38	46600
			BI Total	8025	7411	26833	389	27222	2693	4623	1286	3581	12183	

TAZ	CENSUS TRACT	PLAN DIST /a/	SUB AREA /b/	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
		EH Total		**24106**	**20667**	**69204**	**608**	**69812**	**2746**	**5230**	**2090**	**5353**	**15419**	
127	409000	AP		0	0	0	0	0	0	8321	297	357	8975	0
128	409000	AP		1	1	4	0	4	404	766	125	818	2113	40800
595	409000	AP		0	0	0	0	0	303	671	314	900	2188	0
597	409000	AP		0	0	0	12	12	962	2821	961	3514	8258	0
598	409000	AP		0	0	0	0	0	0	50	0	0	50	0
633	409000	AP		0	0	0	0	0	0	1070	0	158	1228	0
622	407300	AP		2	3	6	0	6	230	795	347	230	1602	42600
		AP Total		**3**	**4**	**10**	**12**	**22**	**1899**	**14494**	**2044**	**5977**	**24414**	
		CE, EH, AP Total		**43481**	**36106**	**117307**	**1583**	**118890**	**5956**	**22614**	**5961**	**15268**	**49799**	
		Grand Total		**90654**	**72518**	**226924**	**3486**	**230410**	**8278**	**27636**	**10064**	**26633**	**72611**	
Notes:														
/a/ See map in Figure E-1.														
/b/ Identifies Planning Area locations above (AI) or below (BI) International Blvd.														
Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.														

TABLE D-4d: 2025 CUMULATIVE SCENARIO FOR SURROUNDING AREAS OF EAST OAKLAND - MARCH 2006														
	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
98	405200	SA	AI	1126	743	1511	0	1511	5	21	6	293	325	83800
541	405200	SA	AI	1231	893	1649	3	1652	1	27	55	387	470	83800
542	405200	SA	AI	1373	853	1842	0	1842	2	5	19	80	106	83800
96	405300	SA	AI	1847	1632	2948	38	2986	5	104	49	201	359	62300
539	405300	SA	AI	1878	1575	3080	0	3080	21	88	264	239	612	62300
97	405400	SA	AI	1023	741	2251	7	2258	94	38	125	98	355	57100
540	405400	SA	AI	1156	966	2585	24	2609	11	60	30	100	201	55700
737	405400	SA	AI	733	426	1647	7	1654	6	272	61	245	584	55700
738	405400	SA	AI	877	706	1861	126	1987	0	198	4	91	293	55700
543	405500	SA	AI	1085	925	2162	0	2162	22	11	12	43	88	58700
764	405500	SA	AI	1000	616	1994	0	1994	0	11	0	53	64	58700
99	405600	SA	AI	2178	1484	3862	0	3862	20	42	4	167	233	70400
549	405700	SA	AI	666	436	1271	153	1424	4	147	36	2037	2224	56600
550	405700	SA	AI	1107	901	2353	0	2353	11	5	0	47	63	56600
102	405800	SA	AI	1889	1346	4874	0	4874	0	24	8	23	55	59500
101	405900	SA	AI	922	582	2447	0	2447	0	0	6	153	159	58300
546	405900	SA	AI	823	544	2137	48	2185	21	5	29	202	257	58300
547	405900	SA	AI	547	378	1349	4	1353	44	46	77	115	282	63000
548	405900	SA	AI	570	439	1512	0	1512	0	15	4	13	32	58300
739	405900	SA	AI	225	167	598	1	599	33	0	16	59	108	58300
104	406200	SA	AI	1584	1070	4537	83	4620	7	150	128	396	681	52100
552	406200	SA	AI	963	693	2803	5	2808	0	42	16	29	87	52100
553	406200	SA	AI	258	177	752	0	752	0	41	37	28	106	52100
103	406300	SA	AI	1801	1218	4355	141	4496	11	33	47	220	311	65600
551	406400	SA	AI	929	679	1909	390	2299	16	8	0	417	441	84500
			AI Total	27791	20190	58289	1030	59319	334	1393	1033	5736	8496	
95	406000	SA	BI	3291	2730	4654	0	4654	48	16	426	366	856	111900
537	406000	SA	BI	949	882	1760	0	1760	0	227	84	178	489	61400
538	406000	SA	BI	718	447	1410	0	1410	81	371	129	235	816	50600
544	406000	SA	BI	43	37	56	10	66	160	480	224	935	1799	45800
545	406000	SA	BI	111	67	225	0	225	96	309	120	125	650	45800
740	406000	SA	BI	42	21	86	0	86	48	171	47	128	394	45800
763	406000	SA	BI	263	190	533	0	533	26	144	112	176	458	45800
			BI Total	5417	4374	8724	10	8734	459	1718	1142	2143	5462	
		SA Total		**33208**	**24564**	**67013**	**1040**	**68053**	**793**	**3111**	**2175**	**7879**	**13958**	
554	406200	FV	AI	1007	735	2781	154	2935	15	38	111	673	837	52100
110	406500	FV	AI	1395	1061	3383	6	3389	0	35	27	100	162	69600
567	406500	FV	AI	1190	803	2803	94	2897	33	24	96	292	445	69600
112	406600	FV	AI	2496	1670	5239	19	5258	0	36	21	246	303	72000
570	406600	FV	AI	1307	997	2712	42	2754	38	62	114	236	450	72000
117	407000	FV	AI	2460	1706	5477	142	5619	0	12	19	261	292	66400
576	407000	FV	AI	464	380	1038	21	1059	4	15	100	96	215	66400
111	407100	FV	AI	871	520	1962	0	1962	0	11	122	30	163	70100
568	407100	FV	AI	1707	1010	3844	0	3844	0	83	25	109	217	70100
569	407100	FV	AI	1151	807	2559	39	2598	0	27	4	35	66	70100
109	407200	FV	AI	2047	1197	4616	244	4860	0	89	273	471	833	63900
566	407200	FV	AI	985	604	2309	38	2347	0	50	289	144	483	63600
			AI Total	17080	11490	38723	799	39522	90	482	1201	2693	4466	
100	406000	FV	BI	586	405	906	0	906	340	651	98	214	1303	89000
105	406100	FV	BI	1786	1045	3045	119	3164	76	183	95	375	729	74400
345	406100	FV	BI	101	58	209	0	209	410	148	452	310	1320	55900
555	406100	FV	BI	485	329	731	1	732	0	13	417	255	685	87200
556	406100	FV	BI	1348	951	2380	23	2403	5	263	238	327	833	77800
557	406100	FV	BI	337	188	672	0	672	87	71	168	188	514	60900
621	406100	FV	BI	839	602	1396	5	1401	69	96	83	193	441	86000
			BI Total	5482	3578	9339	148	9487	987	1425	1551	1862	5825	
		FV Total		**22562**	**15068**	**48062**	**947**	**49009**	**1077**	**1907**	**2752**	**4555**	**10291**	
119	407400	CE	AI	983	682	2505	33	2538	16	43	73	51	183	61000
579	407400	CE	AI	715	490	1815	30	1845	49	38	133	110	330	61000
120	407500	CE	AI	786	622	2234	7	2241	1	11	15	39	66	57100
580	407500	CE	AI	447	366	1204	77	1281	0	0	0	8	8	57100
581	407500	CE	AI	469	436	1374	2	1376	0	4	20	45	69	57100
118	407600	CE	AI	1123	826	2255	47	2302	0	4	0	98	102	73900
577	407600	CE	AI	1315	755	2689	3	2692	0	0	22	146	168	73900
578	407600	CE	AI	849	553	1682	59	1741	0	11	0	83	94	73900
121	407700	CE	AI	1580	989	2599	7	2606	0	13	16	79	108	85700
582	407700	CE	AI	731	496	1202	5	1207	0	14	0	40	54	85700
583	407700	CE	AI	486	280	772	29	801	0	4	0	23	27	85700
122	407800	CE	AI	367	43	116	442	558	27	27	88	922	1064	90300
584	407800	CE	AI	1319	744	1914	11	1925	4	61	73	80	218	90300

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
123	408200	CE	AI	1272	976	2322	0	2322	0	15	14	108	137	78900
743	408200	CE	AI	1137	747	2071	7	2078	0	55	0	49	104	78900
346	408600	CE	AI	799	740	2511	6	2517	0	10	37	56	103	55700
623	408600	CE	AI	324	317	1022	0	1022	0	6	0	8	14	55700
624	408600	CE	AI	423	436	1326	6	1332	0	0	0	50	50	55700
625	408600	CE	AI	152	128	324	0	324	0	379	491	628	1498	71500
626	408600	CE	AI	207	231	656	0	656	0	16	28	27	71	55700
124	408700	CE	AI	588	514	1388	23	1411	0	33	4	202	239	67300
585	408700	CE	AI	982	777	2333	21	2354	4	53	8	58	123	67300
586	408700	CE	AI	760	516	1738	88	1826	0	12	0	12	24	67300
587	408700	CE	AI	935	602	2245	0	2245	4	25	27	90	146	67300
			AI Total	18749	13266	40297	903	41200	105	834	1049	3012	5000	
108	407300	CE	BI	90	101	212	0	212	769	1124	353	147	2393	51100
563	407300	CE	BI	379	255	688	0	688	177	251	164	79	671	74000
564	407300	CE	BI	513	286	1201	6	1207	35	85	74	231	425	51100
565	407300	CE	BI	326	209	700	71	771	214	457	55	90	816	51100
125	408800	CE	BI	1445	1001	3213	2	3215	175	911	335	620	2041	56000
588	408800	CE	BI	468	569	1862	19	1881	0	4	16	31	51	37600
589	408800	CE	BI	404	419	1624	0	1624	0	0	23	153	176	37600
590	408800	CE	BI	149	203	600	0	600	76	305	3	38	422	37600
129	409000	CE	BI	0	0	0	0	0	0	10	150	420	580	0
			BI Total	3774	3043	10100	98	10198	1446	3147	1173	1809	7575	
		CE Total		**22523**	**16309**	**50397**	**1001**	**51398**	**1551**	**3981**	**2222**	**4821**	**12575**	
606	408300	EH	AI	1555	1090	2794	0	2794	31	26	4	169	230	99300
744	408300	EH	AI	599	343	1067	8	1075	0	9	54	39	102	99300
745	408300	EH	AI	578	331	1033	5	1038	0	0	19	50	69	99300
134	408400	EH	AI	708	665	1998	11	2009	0	120	0	15	135	55200
605	408400	EH	AI	648	545	1838	2	1840	0	55	32	40	127	55200
133	408500	EH	AI	755	589	2165	5	2170	0	0	19	91	110	65200
602	408500	EH	AI	543	445	1560	0	1560	0	16	15	33	64	65200
603	408500	EH	AI	394	376	1133	0	1133	0	0	11	82	93	65200
604	408500	EH	AI	246	222	705	0	705	0	0	0	16	16	65200
347	409600	EH	AI	402	337	1257	10	1267	0	-2	23	89	110	61100
627	409600	EH	AI	441	392	1389	0	1389	0	20	4	21	45	61100
628	409600	EH	AI	471	402	1481	1	1482	0	0	11	11	22	61100
629	409600	EH	AI	409	386	1289	0	1289	0	0	16	18	34	61100
137	409700	EH	AI	402	319	1085	37	1122	0	11	0	49	60	54100
758	409700	EH	AI	805	590	2114	17	2131	0	0	4	0	4	57500
759	409700	EH	AI	450	420	1255	0	1255	0	4	0	135	139	54100
760	409700	EH	AI	419	364	1161	6	1167	0	4	0	0	4	54100
135	409800	EH	AI	950	606	1693	26	1719	0	22	6	118	146	88700
752	409800	EH	AI	863	586	1550	9	1559	0	27	4	103	134	88700
136	410100	EH	AI	576	364	1008	14	1022	0	185	391	267	843	86900
761	410100	EH	AI	1117	752	2145	42	2187	0	29	-15	8	22	84400
138	410200	EH	AI	662	524	1598	0	1598	0	0	123	107	230	70100
607	410200	EH	AI	447	350	1060	20	1080	0	-5	8	10	13	70100
608	410200	EH	AI	521	386	1258	0	1258	0	0	0	3	3	70100
609	410300	EH	AI	528	391	1577	10	1587	0	0	0	3	3	58900
610	410300	EH	AI	285	248	857	2	859	6	24	2	34	66	58900
637	410300	EH	AI	302	233	910	0	910	0	38	16	109	163	58900
638	410300	EH	AI	165	149	495	0	495	0	0	0	118	118	58900
139	410400	EH	AI	1075	676	2025	0	2025	10	125	229	211	575	85600
611	410400	EH	AI	491	294	1041	0	1041	0	11	0	16	27	78200
612	410400	EH	AI	458	351	969	0	969	0	0	0	11	11	78200
			AI Total	18265	13726	43510	225	43735	47	719	976	1976	3718	
131	408900	EH	BI	161	239	676	0	676	453	447	41	287	1228	46500
600	408900	EH	BI	502	521	2051	132	2183	0	10	4	30	44	46500
741	408900	EH	BI	647	683	2165	0	2165	0	0	15	26	41	56200
130	409000	EH	BI	563	545	1979	20	1999	482	1360	40	383	2265	47500
596	409000	EH	BI	893	750	2119	0	2119	148	896	265	1090	2399	66800
599	409000	EH	BI	0	0	0	3	3	295	660	806	981	2742	0
142	409100	EH	BI	849	620	2161	0	2161	31	32	0	44	107	66000
617	409200	EH	BI	1193	923	3364	0	3364	44	33	99	219	395	63400
141	409300	EH	BI	775	552	1761	26	1787	306	84	66	121	577	69900
615	409300	EH	BI	617	460	1708	37	1745	0	4	20	38	62	58800
616	409300	EH	BI	378	268	1064	6	1070	0	30	0	93	123	58800
762	409300	EH	BI	588	466	1669	0	1669	0	0	16	35	51	58800
140	409400	EH	BI	1209	906	2958	0	2958	437	682	70	200	1389	68200
613	409400	EH	BI	250	210	816	0	816	0	15	2	29	46	54000
614	409400	EH	BI	464	320	1351	177	1528	0	0	40	17	57	54000
132	409500	EH	BI	354	334	1237	0	1237	527	732	31	38	1328	53200
601	409500	EH	BI	393	351	1376	0	1376	16	0	9	121	146	53200
742	409500	EH	BI	302	260	1055	0	1055	0	0	10	43	53	53200
			BI Total	10138	8408	29510	401	29911	2739	4985	1534	3795	13053	
		EH Total		**28403**	**22134**	**73020**	**626**	**73646**	**2786**	**5704**	**2510**	**5771**	**16771**	

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
127	409000	AP		0	0	0	0	0	0	9722	342	694	10758	0
128	409000	AP		1	1	4	0	4	676	1080	130	1252	3138	47500
595	409000	AP		0	0	0	0	0	303	701	314	1000	2318	0
597	409000	AP		0	0	0	12	12	962	2821	961	3621	8365	0
598	409000	AP		0	0	0	0	0	0	50	0	0	50	0
633	409000	AP		0	0	0	0	0	0	1220	0	183	1403	0
622	407300	AP		444	291	659	0	659	230	750	372	299	1651	92600
		AP Total		**445**	**292**	**663**	**12**	**675**	**2171**	**16344**	**2119**	**7049**	**27683**	
		CE, EH, AP Total		**51371**	**38735**	**124080**	**1639**	**125719**	**6508**	**26029**	**6851**	**17641**	**57029**	
		Grand Total		**107141**	**78367**	**239155**	**3626**	**242781**	**8378**	**31047**	**11778**	**30075**	**81278**	
Notes:														
/a/ See map in Figure E-1.														
/b/ Identifies Planning Area locations above (AI) or below (BI) International Blvd.														
Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.														

TABLED-4e: 2000-2025 CUMULATIVE SCENARIO FOR SURROUNDING AREAS OF EAST OAKLAND - MARCH 2006														
	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
98	405200	SA	AI	150	0	4	0	4	0	4	2	35	41	18700
541	405200	SA	AI	164	0	5	0	5	0	0	6	24	30	18700
542	405200	SA	AI	183	0	5	0	5	0	0	8	8	16	18700
96	405300	SA	AI	263	17	40	3	43	0	14	8	15	37	11300
539	405300	SA	AI	319	110	185	0	185	0	7	82	33	122	11300
97	405400	SA	AI	192	42	99	0	99	-5	3	57	10	65	13900
540	405400	SA	AI	154	0	8	1	9	0	0	6	13	19	12500
737	405400	SA	AI	98	0	5	0	5	-5	0	34	15	44	12500
738	405400	SA	AI	117	0	6	8	14	0	0	0	4	4	12500
543	405500	SA	AI	144	0	5	0	5	0	0	4	5	9	9800
764	405500	SA	AI	133	0	4	0	4	0	0	0	2	2	9800
99	405600	SA	AI	347	46	128	0	128	0	1	0	10	11	12700
549	405700	SA	AI	89	0	4	8	12	0	9	3	57	69	9800
550	405700	SA	AI	148	0	8	0	8	0	0	0	3	3	9800
102	405800	SA	AI	283	26	97	0	97	0	0	0	4	4	11000
101	405900	SA	AI	129	5	28	0	28	0	0	0	7	7	10300
546	405900	SA	AI	110	0	6	3	9	-6	1	4	16	15	10300
547	405900	SA	AI	159	67	170	0	170	0	2	17	13	32	15000
548	405900	SA	AI	76	0	4	0	4	0	0	0	2	2	10300
739	405900	SA	AI	30	0	2	0	2	0	0	0	4	4	10300
104	406200	SA	AI	225	10	57	4	61	0	6	15	21	42	10300
552	406200	SA	AI	129	0	9	0	9	0	0	0	4	4	10300
553	406200	SA	AI	35	0	2	0	2	0	0	8	10	18	10300
103	406300	SA	AI	264	19	78	8	86	0	0	14	23	37	14500
551	406400	SA	AI	125	0	0	23	23	0	0	0	40	40	15600
			AI Total	4066	342	959	58	1017	-16	47	268	378	677	
95	406000	SA	BI	3271	2713	4621	0	4621	-58	-103	363	286	488	75800
537	406000	SA	BI	426	322	460	0	460	-5	0	20	-270	-255	25300
538	406000	SA	BI	231	88	163	0	163	-18	5	44	67	98	14500
544	406000	SA	BI	7	0	-4	0	-4	-20	12	86	335	413	9700
545	406000	SA	BI	15	0	-14	0	-14	-6	24	35	32	85	9700
740	406000	SA	BI	6	0	-5	0	-5	-13	2	8	15	12	9700
763	406000	SA	BI	36	0	-33	0	-33	-6	3	31	16	44	9700
			BI Total	3992	3123	5188	0	5188	-126	-57	587	481	885	
		SA Total		**8058**	**3465**	**6147**	**58**	**6205**	**-142**	**-10**	**855**	**859**	**1562**	
554	406200	FV	AI	179	37	149	8	157	0	4	17	94	115	10300
110	406500	FV	AI	190	4	21	0	21	0	0	0	7	7	13600
567	406500	FV	AI	158	0	7	5	12	0	0	21	38	59	13600
112	406600	FV	AI	331	0	14	1	15	0	-6	0	12	6	13600
570	406600	FV	AI	250	67	189	3	192	-6	0	13	13	20	13600
117	407000	FV	AI	328	0	14	8	22	0	0	0	10	10	13100
576	407000	FV	AI	62	0	3	1	4	0	0	8	14	22	13100
111	407100	FV	AI	116	0	6	0	6	0	0	1	4	5	16900
568	407100	FV	AI	228	0	11	0	11	0	0	14	18	32	16900
569	407100	FV	AI	154	0	8	3	11	0	0	0	0	0	16900
109	407200	FV	AI	316	29	105	15	120	0	0	46	46	92	15100
566	407200	FV	AI	146	10	45	3	48	0	0	108	22	130	14800
			AI Total	2458	147	572	47	619	-6	-2	228	278	498	
100	406000	FV	BI	543	335	798	0	798	-87	-23	70	84	44	52900
105	406100	FV	BI	1080	630	1469	7	1476	-12	-14	-12	149	111	30900
345	406100	FV	BI	13	0	0	0	0	-90	20	175	200	305	12400
555	406100	FV	BI	444	298	633	0	633	-20	-3	37	84	98	43700
556	406100	FV	BI	886	621	1298	1	1299	-55	18	58	200	221	34300
557	406100	FV	BI	83	27	64	0	64	-20	16	86	41	123	17400
621	406100	FV	BI	591	395	808	0	808	-140	-148	5	40	-243	42500
			BI Total	3640	2306	5070	8	5078	-424	-134	419	798	659	
		FV Total		**6098**	**2453**	**5642**	**55**	**5697**	**-430**	**-136**	**647**	**1076**	**1157**	
119	407400	CE	AI	144	10	45	1	46	0	0	69	34	103	13500
579	407400	CE	AI	155	47	179	1	180	0	0	62	25	87	13500
120	407500	CE	AI	105	0	20	0	20	-10	0	0	13	3	12700
580	407500	CE	AI	59	0	11	4	15	0	0	0	0	0	12700
581	407500	CE	AI	193	174	475	0	475	0	0	0	0	0	12700
118	407600	CE	AI	150	0	8	3	11	0	0	0	1	1	15300
577	407600	CE	AI	176	0	9	0	9	0	0	0	5	5	15300
578	407600	CE	AI	124	8	30	4	34	0	0	0	0	0	15300
121	407700	CE	AI	211	0	8	0	8	0	0	0	0	0	17500
582	407700	CE	AI	97	0	4	0	4	0	0	0	0	0	17500
583	407700	CE	AI	65	0	2	1	3	0	0	0	4	4	17500
122	407800	CE	AI	49	0	0	24	24	0	0	0	88	88	24300
584	407800	CE	AI	177	1	6	0	6	0	12	35	25	72	24300

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
123	408200	CE	AI	169	0	6	0	6	0	4	3	48	55	14700
743	408200	CE	AI	151	0	6	0	6	0	0	0	27	27	14700
346	408600	CE	AI	125	20	86	0	86	0	0	15	4	19	10700
623	408600	CE	AI	43	0	7	0	7	0	0	0	0	0	10700
624	408600	CE	AI	56	0	10	0	10	0	0	0	0	0	10700
625	408600	CE	AI	115	77	190	0	190	0	186	220	140	546	26500
626	408600	CE	AI	116	114	326	0	326	0	0	10	10	20	10700
124	408700	CE	AI	78	0	9	1	10	0	0	0	26	26	12200
585	408700	CE	AI	165	31	108	1	109	0	0	8	9	17	12200
586	408700	CE	AI	102	0	12	4	16	0	0	0	0	0	12200
587	408700	CE	AI	191	49	197	0	197	0	0	0	5	5	12200
			AI Total	3016	531	1754	44	1798	-10	202	422	464	1078	
108	407300	CE	BI	12	0	1	0	1	145	265	0	10	420	11800
563	407300	CE	BI	256	148	356	0	356	-35	27	15	10	17	34700
564	407300	CE	BI	69	0	4	0	4	5	20	5	3	33	11800
565	407300	CE	BI	44	0	3	4	7	0	100	5	15	120	11800
125	408800	CE	BI	1173	671	1955	0	1955	142	737	282	538	1699	24800
588	408800	CE	BI	63	0	6	1	7	0	0	4	0	4	6400
589	408800	CE	BI	92	45	179	0	179	0	0	3	6	9	6400
590	408800	CE	BI	21	1	5	0	5	10	75	0	5	90	6400
129	409000	CE	BI	0	0	0	0	0	0	0	0	20	20	0
			BI Total	1730	865	2509	5	2514	267	1224	314	607	2412	
		CE Total		**4746**	**1396**	**4263**	**49**	**4312**	**257**	**1426**	**736**	**1071**	**3490**	
606	408300	EH	AI	207	0	7	0	7	0	0	0	11	11	21700
744	408300	EH	AI	127	31	99	0	99	0	5	35	-6	34	21700
745	408300	EH	AI	77	0	2	0	2	0	0	0	4	4	21700
134	408400	EH	AI	112	19	62	0	62	0	0	0	0	0	9000
605	408400	EH	AI	87	0	5	0	5	0	0	10	10	20	9000
133	408500	EH	AI	140	36	137	0	137	0	0	15	4	19	10800
602	408500	EH	AI	107	33	119	0	119	0	0	15	11	26	10800
603	408500	EH	AI	52	0	3	0	3	0	0	0	0	0	10800
604	408500	EH	AI	33	0	2	0	2	0	0	0	0	0	10800
347	409600	EH	AI	71	17	67	0	67	0	-2	1	0	-1	14200
627	409600	EH	AI	90	32	117	0	117	0	20	0	10	30	14200
628	409600	EH	AI	63	0	4	0	4	0	0	0	0	0	14200
629	409600	EH	AI	54	0	4	0	4	0	0	0	0	0	14200
137	409700	EH	AI	54	0	10	3	13	0	0	0	0	0	12700
758	409700	EH	AI	218	80	260	0	260	0	0	0	0	0	16100
759	409700	EH	AI	114	58	183	0	183	0	0	0	25	25	12700
760	409700	EH	AI	56	0	11	0	11	0	0	0	0	0	12700
135	409800	EH	AI	141	11	29	1	30	0	0	-10	0	-10	16500
752	409800	EH	AI	115	0	-2	0	-2	0	0	0	-5	-5	16500
136	410100	EH	AI	308	168	419	0	419	0	100	326	71	497	19100
761	410100	EH	AI	147	0	3	3	6	0	-10	-15	-10	-35	16600
138	410200	EH	AI	158	63	193	0	193	0	0	32	40	72	12900
607	410200	EH	AI	68	7	22	1	23	0	-9	0	1	-8	12900
608	410200	EH	AI	130	52	170	0	170	0	0	0	3	3	12900
609	410300	EH	AI	71	0	5	0	5	0	0	0	0	0	14800
610	410300	EH	AI	70	32	113	0	113	-10	2	2	-10	-16	14800
637	410300	EH	AI	40	0	3	0	3	0	0	5	5	10	14800
638	410300	EH	AI	22	0	2	0	2	0	0	0	0	0	-2200
139	410400	EH	AI	516	269	664	0	664	-6	7	125	113	239	24500
611	410400	EH	AI	65	0	3	0	3	0	0	0	0	0	17100
612	410400	EH	AI	61	0	2	0	2	0	0	0	0	0	17100
			AI Total	3574	908	2718	8	2726	-16	113	541	277	915	
131	408900	EH	BI	21	0	1	0	1	-52	80	0	100	128	9100
600	408900	EH	BI	232	198	782	98	880	-4	-1	4	3	2	9100
741	408900	EH	BI	365	234	804	0	804	0	0	1	4	5	18800
130	409000	EH	BI	88	14	62	1	63	0	317	0	66	383	10800
596	409000	EH	BI	556	336	747	0	747	0	50	63	273	386	30100
599	409000	EH	BI	-1	0	0	0	0	245	90	430	130	895	0
142	409100	EH	BI	113	0	-2	0	-2	-7	1	0	17	11	17900
617	409200	EH	BI	261	86	253	0	253	0	0	0	0	0	15800
141	409300	EH	BI	370	192	465	1	466	-40	-34	0	0	-74	25900
615	409300	EH	BI	157	64	242	3	245	0	0	0	10	10	14800
616	409300	EH	BI	69	15	63	0	63	-38	-1	0	0	-39	14800
762	409300	EH	BI	78	0	5	0	5	0	0	0	0	0	14800
140	409400	EH	BI	648	351	837	0	837	3	226	0	10	239	28500
613	409400	EH	BI	33	0	-2	0	-2	0	0	0	4	4	14300
614	409400	EH	BI	63	1	1	11	12	0	0	0	7	7	14300
132	409500	EH	BI	47	0	4	0	4	10	145	0	0	155	10500
601	409500	EH	BI	78	26	106	0	106	0	0	5	12	17	10500
742	409500	EH	BI	40	0	3	0	3	0	0	10	5	15	10500
			BI Total	3218	1517	4371	114	4485	117	873	513	641	2144	

TAZ	CENSUS TRACT	PLAN DIST /a/	SUB AREA /b/	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
		EH Total		**6792**	**2425**	**7089**	**122**	**7211**	**101**	**986**	**1054**	**918**	**3059**	
127	409000	AP		0	0	0	0	0	0	2449	80	594	3123	0
128	409000	AP		0	0	0	0	0	370	680	5	748	1803	10800
595	409000	AP		0	0	0	0	0	-10	30	85	235	340	0
597	409000	AP		-3	0	0	0	0	315	44	711	718	1788	0
598	409000	AP		0	0	0	0	0	0	0	0	0	0	0
633	409000	AP		0	0	0	0	0	0	300	0	33	333	0
622	407300	AP		442	288	653	0	653	-20	-30	45	89	84	53300
		AP Total		**439**	**288**	**653**	**0**	**653**	**655**	**3473**	**926**	**2417**	**7471**	
		CE, EH, AP Total		**11977**	**4109**	**12005**	**171**	**12176**	**1013**	**5885**	**2716**	**4406**	**14020**	
		Grand Total		**26133**	**10027**	**23794**	**284**	**24078**	**441**	**5739**	**4218**	**6341**	**16739**	

Notes:

/a/ See map in Figure E-1.

/b/ Identifies Planning Area locations above (AI) or below (BI) International Blvd.

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.

TABLE D-4f: 2005-2025 CUMULATIVE SCENARIO FOR SURROUNDING AREAS OF EAST OAKLAND - MARCH 2006														
	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
98	405200	SA	AI	144	0	-12	0	-12	0	4	2	33	39	14900
541	405200	SA	AI	157	0	-12	0	-12	0	0	6	20	26	14900
542	405200	SA	AI	175	0	-14	0	-14	0	0	8	7	15	14900
96	405300	SA	AI	236	0	-22	3	-19	0	10	8	12	30	10900
539	405300	SA	AI	261	22	22	0	22	0	6	40	28	74	10900
97	405400	SA	AI	186	42	76	0	76	0	3	49	8	60	10100
540	405400	SA	AI	147	0	-20	1	-19	0	0	6	12	18	8700
737	405400	SA	AI	94	0	-13	0	-13	0	0	24	15	39	8700
738	405400	SA	AI	112	0	-14	8	-6	0	0	0	4	4	8700
543	405500	SA	AI	138	0	-18	0	-18	0	0	4	5	9	8800
764	405500	SA	AI	127	0	-17	0	-17	0	0	0	2	2	8800
99	405600	SA	AI	335	46	88	0	88	0	0	0	9	9	11000
549	405700	SA	AI	85	0	-10	8	-2	0	7	3	46	56	8900
550	405700	SA	AI	141	0	-17	0	-17	0	0	0	3	3	8900
102	405800	SA	AI	272	26	46	0	46	0	0	0	3	3	9300
101	405900	SA	AI	124	5	3	0	3	0	0	0	7	7	9500
546	405900	SA	AI	105	0	-16	3	-13	-5	1	4	13	13	9500
547	405900	SA	AI	131	50	120	0	120	0	1	12	10	23	12800
548	405900	SA	AI	73	0	-12	0	-12	0	0	0	2	2	9500
739	405900	SA	AI	28	0	-4	0	-4	0	0	0	4	4	9500
104	406200	SA	AI	215	10	9	4	13	0	6	13	19	38	8700
552	406200	SA	AI	123	0	-21	0	-21	0	0	0	4	4	8600
553	406200	SA	AI	33	0	-6	0	-6	0	0	8	10	18	8600
103	406300	SA	AI	253	19	33	8	41	0	0	14	20	34	10900
551	406400	SA	AI	120	0	-21	23	2	0	0	0	35	35	13300
			AI Total	3815	220	148	58	206	-5	38	201	331	565	
95	406000	SA	BI	3271	2713	4621	0	4621	-58	-43	368	200	467	74600
537	406000	SA	BI	397	264	345	0	345	-3	0	15	-275	-263	24100
538	406000	SA	BI	211	88	141	0	141	-10	5	34	61	90	13300
544	406000	SA	BI	6	0	-5	0	-5	-20	10	86	277	353	8500
545	406000	SA	BI	14	0	-18	0	-18	0	24	35	32	91	8500
740	406000	SA	BI	6	0	-7	0	-7	-10	2	8	15	15	8500
763	406000	SA	BI	34	0	-43	0	-43	-4	3	23	14	36	8500
			BI Total	3939	3065	5034	0	5034	-105	1	569	324	789	
		SA Total		**7754**	**3285**	**5182**	**58**	**5240**	**-110**	**39**	**770**	**655**	**1354**	
554	406200	FV	AI	173	37	121	8	129	0	4	12	94	110	8600
110	406500	FV	AI	177	0	-27	0	-27	0	0	0	6	6	11200
567	406500	FV	AI	151	0	-23	5	-18	0	0	18	31	49	11200
112	406600	FV	AI	317	0	-41	1	-40	0	0	0	10	10	11600
570	406600	FV	AI	242	67	162	3	165	-4	0	12	12	20	11600
117	407000	FV	AI	313	0	-44	8	-36	0	0	0	8	8	10800
576	407000	FV	AI	59	0	-8	1	-7	0	0	7	13	20	10800
111	407100	FV	AI	111	0	-15	0	-15	0	0	1	3	4	11700
568	407100	FV	AI	218	0	-30	0	-30	0	0	12	14	26	11700
569	407100	FV	AI	147	0	-20	3	-17	0	0	0	0	0	11700
109	407200	FV	AI	304	29	57	15	72	0	0	40	40	80	11600
566	407200	FV	AI	140	10	21	3	24	0	0	100	20	120	11300
			AI Total	2352	143	153	47	200	-4	4	202	251	453	
100	406000	FV	BI	542	335	796	0	796	-80	-30	70	79	39	51700
105	406100	FV	BI	958	557	1268	7	1275	-20	1	-12	54	23	24900
345	406100	FV	BI	13	0	-3	0	-3	-90	20	67	200	197	11100
555	406100	FV	BI	443	298	631	0	631	-20	-3	37	54	68	42400
556	406100	FV	BI	811	555	1159	1	1160	-47	8	30	70	61	29400
557	406100	FV	BI	81	27	54	0	54	-18	15	75	41	113	16100
621	406100	FV	BI	345	212	445	0	445	-120	-100	15	40	-165	20900
			BI Total	3193	1984	4350	8	4358	-395	-89	282	538	336	
		FV Total		**5545**	**2127**	**4503**	**55**	**4558**	**-399**	**-85**	**484**	**789**	**789**	
119	407400	CE	AI	138	10	19	1	20	0	0	15	25	40	10500
579	407400	CE	AI	151	47	161	1	162	0	0	50	10	60	10500
120	407500	CE	AI	100	0	-18	0	-18	-5	0	0	10	5	9100
580	407500	CE	AI	57	0	-9	4	-5	0	0	0	0	0	9100
581	407500	CE	AI	179	114	388	0	388	0	0	0	0	0	9100
118	407600	CE	AI	143	0	-16	3	-13	0	0	0	0	0	12000
577	407600	CE	AI	168	0	-20	0	-20	0	0	0	4	4	12000
578	407600	CE	AI	119	8	12	4	16	0	0	0	0	0	12000
121	407700	CE	AI	202	0	-20	0	-20	0	0	0	0	0	13500
582	407700	CE	AI	93	0	-9	0	-9	0	0	0	0	0	13500
583	407700	CE	AI	62	0	-6	1	-5	0	0	0	3	3	13500
122	407800	CE	AI	46	0	-1	24	23	0	0	0	80	80	17800
584	407800	CE	AI	167	0	-17	0	-17	0	11	26	24	61	17800

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
123	408200	CE	AI	162	0	-18	0	-18	0	4	3	45	52	12200
743	408200	CE	AI	144	0	-16	0	-16	0	0	0	24	24	12200
346	408600	CE	AI	120	20	44	0	44	0	0	15	4	19	8600
623	408600	CE	AI	41	0	-11	0	-11	0	0	0	0	0	8600
624	408600	CE	AI	53	0	-13	0	-13	0	0	0	0	0	8600
625	408600	CE	AI	101	58	137	0	137	0	36	50	60	146	24400
626	408600	CE	AI	64	49	134	0	134	0	0	10	10	20	8600
124	408700	CE	AI	75	0	-11	1	-10	0	0	0	26	26	10800
585	408700	CE	AI	160	31	76	1	77	0	0	8	9	17	10800
586	408700	CE	AI	97	0	-13	4	-9	0	0	0	0	0	10800
587	408700	CE	AI	119	0	-17	0	-17	0	0	0	5	5	10800
			AI Total	2761	337	756	44	800	-5	51	177	339	562	
108	407300	CE	BI	12	0	-1	0	-1	125	205	0	10	340	10600
563	407300	CE	BI	255	148	352	0	352	-20	20	10	5	15	33500
564	407300	CE	BI	65	0	-10	0	-10	5	20	5	3	33	10600
565	407300	CE	BI	42	0	-5	4	-1	0	100	5	15	120	10600
125	408800	CE	BI	1121	729	2216	0	2216	150	752	279	558	1739	24400
588	408800	CE	BI	60	0	-14	1	-13	0	0	4	0	4	6000
589	408800	CE	BI	90	45	163	0	163	0	0	3	6	9	6000
590	408800	CE	BI	20	1	-1	0	-1	10	55	0	5	70	6000
129	409000	CE	BI	0	0	0	0	0	0	0	0	20	20	0
			BI Total	1665	923	2700	5	2705	270	1152	306	622	2350	
		CE Total		**4426**	**1260**	**3456**	**49**	**3505**	**265**	**1203**	**483**	**961**	**2912**	
606	408300	EH	AI	198	0	-22	0	-22	0	0	0	9	9	16100
744	408300	EH	AI	123	31	89	0	89	0	5	35	-6	34	16100
745	408300	EH	AI	73	0	-9	0	-9	0	0	0	4	4	16100
134	408400	EH	AI	108	19	42	0	42	0	0	0	0	0	8300
605	408400	EH	AI	83	0	-14	0	-14	0	0	10	10	20	8300
133	408500	EH	AI	136	36	115	0	115	0	0	15	0	15	10300
602	408500	EH	AI	101	30	93	0	93	0	0	15	10	25	10300
603	408500	EH	AI	49	0	-9	0	-9	0	0	0	0	0	10300
604	408500	EH	AI	32	0	-6	0	-6	0	0	0	0	0	10300
347	409600	EH	AI	69	17	54	0	54	0	0	5	1	6	9500
627	409600	EH	AI	87	32	103	0	103	0	20	0	10	30	9500
628	409600	EH	AI	60	0	-12	0	-12	0	0	0	0	0	9500
629	409600	EH	AI	52	0	-10	0	-10	0	0	0	0	0	9500
137	409700	EH	AI	51	0	-10	3	-7	0	0	0	0	0	8400
758	409700	EH	AI	92	4	-2	0	-2	0	0	0	0	0	9000
759	409700	EH	AI	112	58	163	0	163	0	0	0	25	25	8400
760	409700	EH	AI	54	0	-10	0	-10	0	0	0	0	0	8400
135	409800	EH	AI	120	0	-20	1	-19	0	0	-10	0	-10	14600
752	409800	EH	AI	110	0	-18	0	-18	0	0	0	-5	-5	14600
136	410100	EH	AI	307	168	413	0	413	0	100	326	71	497	16600
761	410100	EH	AI	141	0	-19	3	-16	0	-10	-15	-10	-35	14100
138	410200	EH	AI	154	63	178	0	178	0	0	29	37	66	11100
607	410200	EH	AI	65	7	11	1	12	0	-9	0	1	-8	11100
608	410200	EH	AI	106	34	99	0	99	0	0	0	3	3	11100
609	410300	EH	AI	68	0	-12	0	-12	0	0	0	0	0	9700
610	410300	EH	AI	68	32	105	0	105	-6	1	1	-10	-14	9700
637	410300	EH	AI	39	0	-7	0	-7	0	0	5	5	10	9700
638	410300	EH	AI	21	0	-3	0	-3	0	0	0	0	0	9700
139	410400	EH	AI	107	16	42	0	42	0	5	33	63	101	14100
611	410400	EH	AI	62	0	-8	0	-8	0	0	0	0	0	13400
612	410400	EH	AI	58	0	-9	0	-9	0	0	0	0	0	13400
			AI Total	2906	547	1307	8	1315	-6	112	449	218	773	
131	408900	EH	BI	20	0	-9	0	-9	-2	50	0	80	128	7200
600	408900	EH	BI	210	174	668	98	766	0	0	3	2	5	7200
741	408900	EH	BI	362	232	778	0	778	0	0	1	3	4	16900
130	409000	EH	BI	84	14	35	1	36	0	193	0	56	249	9600
596	409000	EH	BI	554	336	728	0	728	0	40	66	132	238	28900
599	409000	EH	BI	0	0	0	0	0	100	40	430	80	650	0
142	409100	EH	BI	109	0	-24	0	-24	0	0	0	10	10	10800
617	409200	EH	BI	211	47	75	0	75	0	0	0	0	0	11600
141	409300	EH	BI	367	192	446	1	447	-40	-40	0	0	-80	21000
615	409300	EH	BI	97	15	36	3	39	0	0	0	10	10	9900
616	409300	EH	BI	67	15	48	0	48	-25	0	0	0	-25	9900
762	409300	EH	BI	75	0	-20	0	-20	0	0	0	0	0	9900
140	409400	EH	BI	644	351	815	0	815	38	186	0	0	224	24300
613	409400	EH	BI	32	0	-11	0	-11	0	0	0	4	4	10100
614	409400	EH	BI	59	0	-17	11	-6	0	0	0	7	7	10100
132	409500	EH	BI	45	0	-10	0	-10	0	120	0	0	120	9100
601	409500	EH	BI	75	26	92	0	92	0	0	5	9	14	9100
742	409500	EH	BI	38	0	-9	0	-9	0	0	10	5	15	9100
			BI Total	3049	1402	3621	114	3735	71	589	515	398	1573	

	CENSUS	PLAN	SUB	EMPLYD	HOUSE	HH	GROUP	TOT	MFG	OTHER	RETAIL	SERVICE	TOTAL	MEAN HH
TAZ	TRACT	DIST /a/	AREA /b/	RSDNTS	HOLDS	POP	POP	POP	JOBS	JOBS	JOBS	JOBS	JOBS	INCOME
		EH Total		**5955**	**1949**	**4928**	**122**	**5050**	**65**	**701**	**964**	**616**	**2346**	
127	409000	AP		0	0	0	0	0	0	1868	60	450	2378	0
128	409000	AP		0	0	0	0	0	272	314	5	434	1025	9600
595	409000	AP		0	0	0	0	0	0	30	110	100	240	0
597	409000	AP		0	0	0	0	0	65	0	329	107	501	0
598	409000	AP		0	0	0	0	0	0	0	0	0	0	0
633	409000	AP		0	0	0	0	0	0	200	0	33	233	0
622	407300	AP		442	288	653	0	653	-10	-37	35	79	67	52100
		AP Total		**442**	**288**	**653**	**0**	**653**	**327**	**2375**	**539**	**1203**	**4444**	
		CE, EH, AP Total		**10823**	**3497**	**9037**	**171**	**9208**	**657**	**4279**	**1986**	**2780**	**9702**	
		Grand Total		**24122**	**8909**	**18722**	**284**	**19006**	**148**	**4233**	**3240**	**4224**	**11845**	
Notes:														
/a/ See map in Figure E-1.														
/b/ Identifies Planning Area locations above (AI) or below (BI) International Blvd.														
Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.														

TABLE D-5a
OAKLAND CUMULATIVE GROWTH SCENARIO
ASSUMPTIONS FOR HOUSING PROJECTS IN EAST OAKLAND
FRUITVALE PROJECT EIRS - MARCH 2006

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
	PROJECTS TO BE COMPLETED 2000 - 2005 (Post Census 2000)											
x	Lakeview Court	1		96	96	SA	18	17		E. 18th St. & Athol	1	Completed 2002
x	Evergreen Annex/Irene Cooper Terrace	1		537	537	SA	40	39	SENIOR	1218 2nd Ave.	1	Completed 2000; senior housing
O	E. 12th St. @ 4th Ave.	1	N	537	537	SA	20	19		E. 12th St. @ 4th Ave.	1	Completed (HEG est. of units)
O	Oak Park Homes / affordable rental	1	N	539	539	SA	35	34		2616 E. 16th St.	2	Under construction 2004
O	Lake Merritt Apartments / senior rental	1	N	539	539	SA	55	54	SENIOR	1417 1st Ave.	1	Completed 2004
O/K	District Homes / condos	1	N/C	547	547	SA	18	17	TV-1	1515 14th Ave.	1	Completed 2004
C	Cotton Mill Studios (live/work)	1		105	105	FV	74	73	LOFT-2	1091 Calcot	1	Completed 2/06; conversion of historic building to live-work
O	Fruitvale Ave. Homes / Habitat for Humanity	1	T	110	110	FV	4	4		2662 Fruitvale Ave.	2	Funded affordable project 2002; under construction 2004
	Fruitvale BART Transit Village	1		556	556	FV	47	46	TV-1	3301-3401 E. 12th St.	1	Completed 2004
O	Casa Velasco / Senior Rental	1	N	556	556	FV	20	20	SENIOR	3430 Fruitvale Ave.	2	Under construction 2004
x	Water Park Lofts	1		621	621	FV	27	26	DT-1	2875 Glascock	1	Completed (Signature)
O	Derby/Live-Work / Boathouse Lofts	1	C	621	621	FV	35	34	LOFT-2	400-450 Derby St.	1	Adaptive reuse; completed
x	Glascock Lofts, The Estuary (Signature)	1		621	621	FV	100	96	DT-1	2893 Glascock @ Derby (2 blocks)	1	Completed 2/06 (Signature)
O	Chapman Street	1	N	621	621	FV	8	8	LOFT-2	Chapman / Derby to Lancaster	2	Under construction 2004/05 (HEG est. of units)
O	Ford/Lancaster	1	N	621	621	FV	20	19	LOFT-2	Corner Ford + Lancaster	2	Under construction 2004/05 (HEG est. of units)
x	Coliseum Gardens	1		125	125	CE	117	115	PROJ	6722 Olmstead	2	Under construction 2004; HUD HOPE VI; 480 new units to replace 188 (178+10) existing; assume 117 new in Phase I by 2005
xx	Coliseum Gardens	1		125	125	CE	(178)	(175)	PROJ	6722 Olmstead	2	Under construction 2004; HUD HOPE VI; 480 new units to replace 188 (178+10) existing; assume 178 demolition by 2005
x	Wang/Citizens	1		125	125	CE	2	2		901 70th Av. & 1088 71st Ave.	4	In DDA negotiations 7/1/02
	Bancroft Senior Homes	1		581	581	CE	61	60	SENIOR	2320-2320B 55th Ave.	1	Completed 2002; senior housing
x	Wang/Citizens	1		584	584	CE	1	1		3214 Courtland Ave.	4	In DDA negotiations 7/1/02
x	International Boulevard (RCD - 2 sites)	1		587	587	CE	29	28		6600 Int'l./1406 Seminary	2	Under construction 7/1/02
x	International Boulevard Phase II	1		587	587	CE	22	21		6006 International	2	Under construciton 7/1/02; 2 units replaced by 24 new units
O	Eastmont Court	1	T	625	625	CE	19	19		6850 Foothill Blvd.	2	Under construction 10/2004; HUD 811 funds
	Foothill Family Apts.	1		626	626	CE	66	65		Foothill bet. 68th + 69th	2	Under construction 7/1/02
x	Wang/Citizens	1		135	135	EH	11	11		Various sites on Golf Links Rd.	4	In DDA negotiations 7/1/02
x	Durant Square	1		139	139	EH	264	253	NEW-1	International & Durant/105th	1	In addition, 20 existing L/W units; completed 2004
	Allen Temple Arms IV	1		600	600	EH	24	24		7607 International	1	Completed 2001; Disabled/HIV housing
x	Habitat/82nd Ave.	1		602	602	EH	3	3		1419, 1425, & 1431 82nd Ave.	1	Completed 2002
O	Covington Manor	1	T	608	608	EH	19	18		9451 MacArthur Blvd.	2	Housing Opportunity Site EO-25; under construction 2004
x	Wang Infill	1		614	614	EH	1	1		1226 94th Ave.	2	Under construction 7/1/02
	Allen Temple Arms III	1		615	615	EH	50	49		10121 International	1	Completed 2001; senior housing
x	Habitat Village	1		617	617	EH	40	39		350-360, 377 & 383 105th Ave.	1	Completed 2001
x	Wang	1		741	600	EH	2	2		1063 82nd Ave.	1	Completed 2002
x	Palm Villas	1		758	137	EH	78	76	MOD-2	MacArthur (90th - 92nd)	1	Completed
	PROJECTS TO BE COMPLETED 2000 - 2005 TOTAL						**1,152**	**1,118**				

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
	PROJECTS TO BE COMPLETED 2005 - 2010											
O	Oak to 9th Project - Phases 1, 2, 3	2	N	95	95	SA	1,139	1,093	PROJ	Oak to 9th Parcels A,F,G,B,C	5	Predevelopment 11/05
F	801 International Blvd.	2	N	97	97	SA	44	42	TV-2	801 International Blvd.	5	Predevelopment end 2005; mixed-use project
x	1173 28th St.	2		99	99	SA	47	46		1173 28th St.	4	In site acquisition for affordable project as of 7/1/02
O	Sausal Creek	2	N	103	103	SA	17	17		2464 26th Ave.	5	In predevelopment 2004; affordable housing
F	2681 Fruitvale Ave.	2	N	103	103	SA	2	2		Fruitvale @ E. 27th St. (SW corner)	5	Predevelopment 11/05
F	Mutual Creamery Lofts	2	N	537	537	SA	25	24	DT-2	425 E. 11th St.	2	Under construction 1/06; restored building
x	1091 Calcot	2		105	105	FV	73	72		1091 Calcot	4	In site acquisition for affordable project as of 7/1/02
F	Fruitvale Gateway, Phases 1 and 2	2	N	105	105	FV	280	269	PROJ	East 12th St. / 25th Ave. to Derby	5	In predevelopment 3/06; 814 units in 6 phases (TAZs 105 + 555)
F	Lofts - 37th + International	2	N	109	109	FV	15	14	LOFT-2	1501 37th Ave. @ International	2	Under construction 2005; completed 2005/06; HEG est. of units
O	Seven Directions	2	C	554	554	FV	38	37		2946 International Blvd.	3	Approved 10/03
x	AACWA-homeownership	2		555	555	FV	1	1		1230 31st Ave.	4	Predevelopment 7/1/02; funded affordable project
F	Fruitvale Village Phase 2 (BART)	2	C	556	556	FV	447	430	PROJ	BART parking lot	5	Second phase of Transit Village project; predevelopment 3/06
F	4021 International Blvd. mixed-use	2	N	557	557	FV	28	27	NEW-2	4021 International Blvd.	5	Predevelopment 2/06
x	AACWA-homeownership	2		566	566	FV	2	2		1601 39th Ave. & 4116 E. 16th st.	4	Predevelopment 7/1/02; funded affordable project
O	Fruitvale Waterfront / Kennedy Tract	2	N	621	621	FV	40	38	NEW-2			Additional infill; smaller sites
F	Ford Street Lofts / Harbor Walk	2	T	621	621	FV	81	78	DT-1	3041, 3061, 3065 Ford / Lancaster to Glasscock	2	Under construction 2004 (Signature)
F	International Blvd. + 54th Ave.	2	N	119	119	CE	10	10		5406-5424 International Blvd. + 1416-1420 54th Ave.	5	Predevelopment; mixed-use project with commercial renovation and new housing development
xx	Coliseum Gardens	2		125	125	CE	363	355	PROJ	6722 Olmstead	3	Approved 2/04; HUD HOPE VI; 480 new units total to replace 188 (178+10) existing; assume Phase II-V complete by 2010
xx	Coliseum Gardens	2		125	125	CE	(10)	(10)	PROJ	6722 Olmstead	3	HUD HOPE VI; 480 new units replace 188 (178+10) existing; assume 10 demolished for Phases II-V
x	5825 Foothill	2		581	581	CE	30	29		5825 Foothill	4	In site acquisition for affordable project as of 7/1/02
x	AACWA-homeownership	2		589	589	CE	1	1		1191 72nd Ave.	4	Predevelopment 7/1/02; funded affordable project
x	AACWA-homeownership	2		590	590	CE	1	1		1180 60th Ave.	4	Predevelopment 7/1/02; funded affordable project
x	Horizon Townhomes	2		136	136	EH	18	18		98th/MacArthur Ave.	4	Predevelopment 7/1/02; funded affordable project
O	Toler Heights	2	T	136	136	EH	6	6		98th Ave. @ MacArthur	4	DDA complete 7/1/02; predevelopment 2004
x	10211 Byron	2		138	138	EH	50	49		10211 Byron	4	In site acquisition for affordable project as of 7/1/02
F	Arcadia Park	2	N	140	140	EH	366	351	NEW-2	98th Ave. @ San Leandro	3	Approved 9/05
x	AACWA-homeownership	2		600	600	EH	1	1		1266 79th Ave.	4	Predevelopment 7/1/02; funded affordable project
O	Transitional Housing /f/	2	N	600	600	EH	103	5	GROUP	7515-7523 International Blvd.	5	Predevelopment 2004; new facility to include 5 family rooming units and an adult dormitory of 98 beds
x	AACWA-homeownership	2		616	616	EH	1	1		10628 Pearmain Ave.	4	Predevelopment 7/1/02; funded affordable project
O	10900 Edes / Habitat for Humanity	2	C	617	617	EH	26	26	MOD-2	10900 Edes Ave.	3	In site acquisition for affordable project as of 7/1/02; approved 6/05
O	313-319 105th Ave. Mini-Lot Development	2	N	617	617	EH	22	21		313-319 105th Ave.	5	Predevelopment
x	Leola Terrace Phase Two	2		758	137	EH	4	4		2450-2456 90th Ave. @ MacArthur	4	Predevelopment 2004; funded affordable project
	PROJECTS TO BE COMPLETED 2005 - 2010 TOTAL						**3,271**	**3,060**				
	PROJECTS TO BE COMPLETED 2010 - 2020											
O	Fifth Avenue / Oak to 9th	3	N	95	95	SA	25	25	PROJ	Fifth Avenue Artisans Area	7	Intensification/infill under Estuary Policy Plan
O	Oak to 9th Project - Phases 4, 5, 6, 7	3	N	95	95	SA	1,661	1,595	PROJ	Oak to 9th Parcels D,E,H,J,K,L,M	5	Predevelopment 11/05; also see Downtown Projects List for 300 units in TAZ 799 west of the channel.
O	EO-42/E. 22nd	3	C	102	102	SA	7	7		2202 E. 22nd St.	7	Housing Opportunity Site

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
x	Channel Area	3		537	537	SA	250	240	DT-2	Oak/5th Ave/Embarcadero/12th St.	7	Housing Opportunity Site DT-28
O	EO-45/E. 10th	3	C	538	538	SA	14	13		1000 E. 10th St. at 9th Ave; 1002, 920, 926 E. 10th	7	Housing Opportunity Site
O	E. 12th Street	3	N	538	538	SA	50	48	TV-1	E. 12th St. / 8th to 14th Aves.		Additional infill here or in vicinity
F	Embarcadero Cove	3	N,T	544	544	SA	149	143	NEW-1	1820-1830 Embarcadero + 945 22nd St.	5	Predevelopment 11/05; small lot single-family
x	EO-47/E. 15th St. + 14th Ave.	3		547	547	SA	13	12		E. 15th St. + 14th Ave.	7	Housing Opportunity Site
O	14th Avenue	3	N	547	547	SA	40	38	TV-1	14th Ave. in vicinity of E. 14th, E. 15th, + Fruitvale Streets		Additional infill in vicinity
O	Con Agra Site or nearby	3	T	100	100	FV	200	192	NEW-1		7	Opportunity Site
F	Fruitvale Gateway, Phases 3 + 4	3	N	105	105	FV	224	216	PROJ	E. 12th St. / 25th Ave. to Derby	5	Predevelopment 3/06; 814 units in 6 phases (TAZs 105 +555)
F	Fruitvale Gateway, Phases 5 + 6	3	N	555	555	FV	310	297	PROJ	E. 12th St. / 25th Ave. to Derby	5	Predevelopment 3/06; 814 units in 6 phases (TAZs 105 +555)
x	Wattling St. Lofts	3		556	556	FV	130	125	TV-1	Wattling st. @ 38th Ave.	5	Predevelopment 7/1/02; border TAZ 556 and 557
x	EO-51/MacArthur	3		570	570	FV	70	67		2819-2833 MacArthur Blvd.	7	Housing Opportunity Site
O	Fruitvale Waterfront / Kennedy Tract	3	T	621	621	FV	100	96	NEW-2		7	Additional infill; possible larger site
x	Coliseum BART Station	3		125	125	CE	200	192	MOD-2	BART parking lot	6	Housing Opportunity Site /e/; in planning stage; total of 400 units
F	46th Ave./E. 12th St. - Olson Co.	3	N	563	563	CE	154	148	NEW-2	E. 12th / 45th to 47th	5	Predevelopment 11/05
x	EO-33/Foothill	3		581	581	CE	34	33		5833 Foothill Blvd.	7	Housing Opportunity Site
x	EO-23/International	3		589	589	CE	12	12		7025 International Blvd.	7	Housing Opportunity Site
	Eastmont Town Center	3		625	625	CE	60	58	NEW-2	73rd and Bancroft	7	Housing Opportunity Site
x	EO-28/Foothill	3		626	626	CE	7	7		6850 Foothill Blvd.	7	Housing Opportunity Site
O	EO-26/Edes-Armistice Powell	3	C	130	130	EH	14	14		9507 Edes	4	Housing Opportunity Site; DDA negotiated 2004
x	EO-7/MacArthur	3		134	134	EH	9	9		7823 MacArthur Blvd.	7	Housing Opportunity Site
O	Foothill Square residential	3	N	136	136	EH	150	144	NEW-2	MacArthur Blvd. @ 106th + I-580	7	Longer-term housing opportunity behind retail, near I-580
F	Potential additional housing	3	N	141	141	EH	200	192	NEW-2		7	Potential opportunity site in vicinity of Arcadia Park project
x	EO-13/International	3		347	347	EH	18	17		9000-9012 International Blvd.	7	Housing Opportunity Site
x	EO-21/International	3		600	600	EH	127	122		International + 73rd	7	Housing Opportunity Site
x	EO-18/International	3		602	602	EH	31	30		8000 International Blvd.	7	Housing Opportunity Site
x	EO-2/MacArthur	3		607	607	EH	7	7		9801-9849 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-3/MacArthur	3		608	608	EH	5	5		9601 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-4/MacArthur	3		608	608	EH	30	29		9439-9547 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-12/International	3		610	610	EH	33	32		9600-9628 International Blvd.	7	Housing Opportunity Site
x	EO-17/International	3		741	600	EH	38	36		8001-8023 International Blvd.	7	Housing Opportunity Site
F	81st Ave. / Tassafaranga Village	3	N	741	600	EH	200	196	MOD-3	81st below International	7	New housing on site acquisitions near older public housing
x	EO-8/MacArthur	3		744	606	EH	32	31		7526-7540 MacArthur Blvd.	7	Housing Opportunity Site
x	90th & MacArthur	3		759	137	EH	40	39		MacArthur Blvd., 89th-91st	6	Development plans of nearby church
x	EO-5/MacArthur	3		759	137	EH	20	19		8201-8237 MacArthur Blvd.	7	Housing Opportunity Site
F	444 Hegenberger Road mixed-use	3	N	596	596	AP	350	336	TV-1	444 Hegenberger Road	5	Predevelopment 2/06; mixed-use project
F	Tidewater area development	3	N	622	622	AP	200	192	NEW-1	Estuary-oriented location	7	Potential opportunity sites
	PROJECTS TO BE COMPLETED 2010 - 2020 TOTAL						**5,214**	**5,014**				
	PROJECTS TO BE COMPLETED 2020 - 2025											
O	EO-43 / 23rd Ave.	4	C	101	101	SA	5	5		2141 23rd Ave.	7	Housing Opportunity Site
O	EO-44 / 23rd Ave.	4	C	102	102	SA	20	19		E. 23rd St. + 23rd Ave.	7	Housing Opportunity Site
x	EO-41 / Foothill	4		104	104	SA	10	10		2301 Foothill Blvd.	7	Housing Opportunity Site

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Plan Dist	Units	House Holds /c/	Special Factor	Location	Status /d/	Comments/Status /e/
O	EO-46 / 8th Ave.	4	C	538	538	SA	28	27		1100 8th Ave. @ E. 11th St.	7	Housing Opportunity Site
x	EO-48 / International	4		539	539	SA	7	7		252 International Blvd @ 3rd Ave.	7	Housing Opportunity Site
x	EO-49 / 1st	4		539	539	SA	16	15		1420 1st Ave.	7	Housing Opportunity Site
x	EO-39 / Foothill	4		109	109	FV	7	7		3601 Foothill Blvd.	7	Housing Opportunity Site
x	EO-40 / 35th Ave.	4		109	109	FV	8	8		1750 35th Ave.	7	Housing Opportunity Site
x	EO-38 / Foothill	4		566	566	FV	8	8		3815 Foothill Blvd.	7	Housing Opportunity Site
x	EO-34 / Foothill	4		578	578	FV	8	8		5490 Foothill Blvd.	7	Housing Opportunity Site
x	EO-36 / Foothill	4		579	579	FV	22	21		4825 Foothill Blvd.	7	Housing Opportunity Site
x	EO-37 / Foothill	4		579	579	FV	27	26		4529 Foothill Blvd.	7	Housing Opportunity Site
x	EO-27 / Fairfax	4		581	581	FV	26	25		5318 Fairfax	7	Housing Opportunity Site
x	EO-35 / Foothill	4		581	581	FV	28	27		5310 + 5308 Fairfax; 5319 Foothill; 5323 Church	7	Housing Opportunity Site
x	EO-31 / Foothill	4		585	585	FV	20	19		6403 Foothill Blvd.	7	Housing Opportunity Site
x	EO-32 / Foothill	4		585	585	FV	12	12		6001 Foothill Blvd.	7	Housing Opportunity Site
x	EO-29 / 68th Ave.	4		626	626	FV	23	22		2901 68th Ave.	7	Housing Opportunity Site
x	EO-30 / Foothill	4		626	626	FV	21	20		6620 Foothill Blvd.	7	Housing Opportunity Site
x	Coliseum BART Station	4		125	125	CE	200	192	MOD-2	BART parking lot	6	Housing Opportunity Site /e/; in planning stage; total of 400 units
x	EO-24 / International	4		346	346	CE	21	20		7000-7016 International Blvd.	7	Housing Opportunity Site
x	EO-22 / International	4		589	589	CE	33	32		7101-7135 International Blvd.	7	Housing Opportunity Site
x	EO-20 / International	4		133	133	EH	37	36		7700-7744 International Blvd.	7	Housing Opportunity Site
x	EO-6 / MacArthur	4		134	134	EH	10	10		7951-7985 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-1 / MacArthur	4		138	138	EH	15	14		10451 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-10 / International	4		139	139	EH	17	16		10102 International Blvd.	7	Housing Opportunity Site
x	EO-19 / International	4		600	600	EH	48	46		7915-7991 International Blvd.	7	Housing Opportunity Site
x	EO-15 / International	4		601	601	EH	27	26		8603-8629 International Blvd.	7	Housing Opportunity Site
x	EO-11 / International	4		615	615	EH	16	15		9945-9959 International Blvd.	7	Housing Opportunity Site
x	EO-9 / International	4		616	616	EH	15	14		10507-10511 International Blvd.	7	Housing Opportunity Site
x	EO-14 / International	4		627	627	EH	15	14		8700 International Blvd.	7	Housing Opportunity Site
x	EO-16 / International	4		627	627	EH	19	18		8332 International Blvd.	7	Housing Opportunity Site
F	Tidewater area development	4	N	622	622	AP	100	96	NEW-1	Estuary-oriented location	7	Potential opportunity sites
	PROJECTS TO BE COMPLETED 2020 - 2025 TOTAL						**869**	**835**				
	TOTAL 2000 - 2025						**10,506**	**10,027**				

/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'U' indicates updated assumptions for Uptown Project EIR, May 2003. 'C' indicates updated assumptions for Central Station Project. December 2003. 'O' indicates updated assumptions for Oak to 9th EIR, November 2004. 'K' indicates updated assumptions for Kaiser EIR, April 2005. 'F' indicates updated assumptions for Fruitvale EIRs, February 2006.
/b/ Codes indicate change made. C = change in number of units and/or number of households; N = new project added to list; T = change in time period assumed for development and occupancy.
/c/ Households equal units multiplied by an assumed vacancy factor.
/d/ Status of project: 1 = completed; 2 = under construction; 3 = approved; 4 = affordable housing project in predevelopment; 5 = other projects in predevelopment; 6 = in planning or part of existing plan; 7 = other housing opportunity site.
/e/ Housing Opportunity Sites are those identified in Oakland's Draft Housing Element (September 2002). The numbers (e.g., DT-11) are those used in Housing Element tables.
/f/ New transitional housing in an adult dormitory is treated as group quarters in the growth scenario, consistent with Census definitions.
/g/ The total units completed during 2000 were 293 for Acorn Parcels 1, 2, and 3, and 71 for Bayporte Village, replacing 480 and 196 original units, respectively, that were removed by 2000.
/h/ This list reflects Maximum Trips Alternative for the Central Station / Wood Street Project.

Source: City of Oakland; Hausrath Economics Group

TABLE D-5b
OAKLAND CUMULATIVE GROWTH SCENARIO
ASSUMPTIONS FOR COMMERCIAL / INDUSTRIAL PROJECTS IN THE EAST OAKLAND
FRUITVALE PROJECT EIRS - MARCH 2006

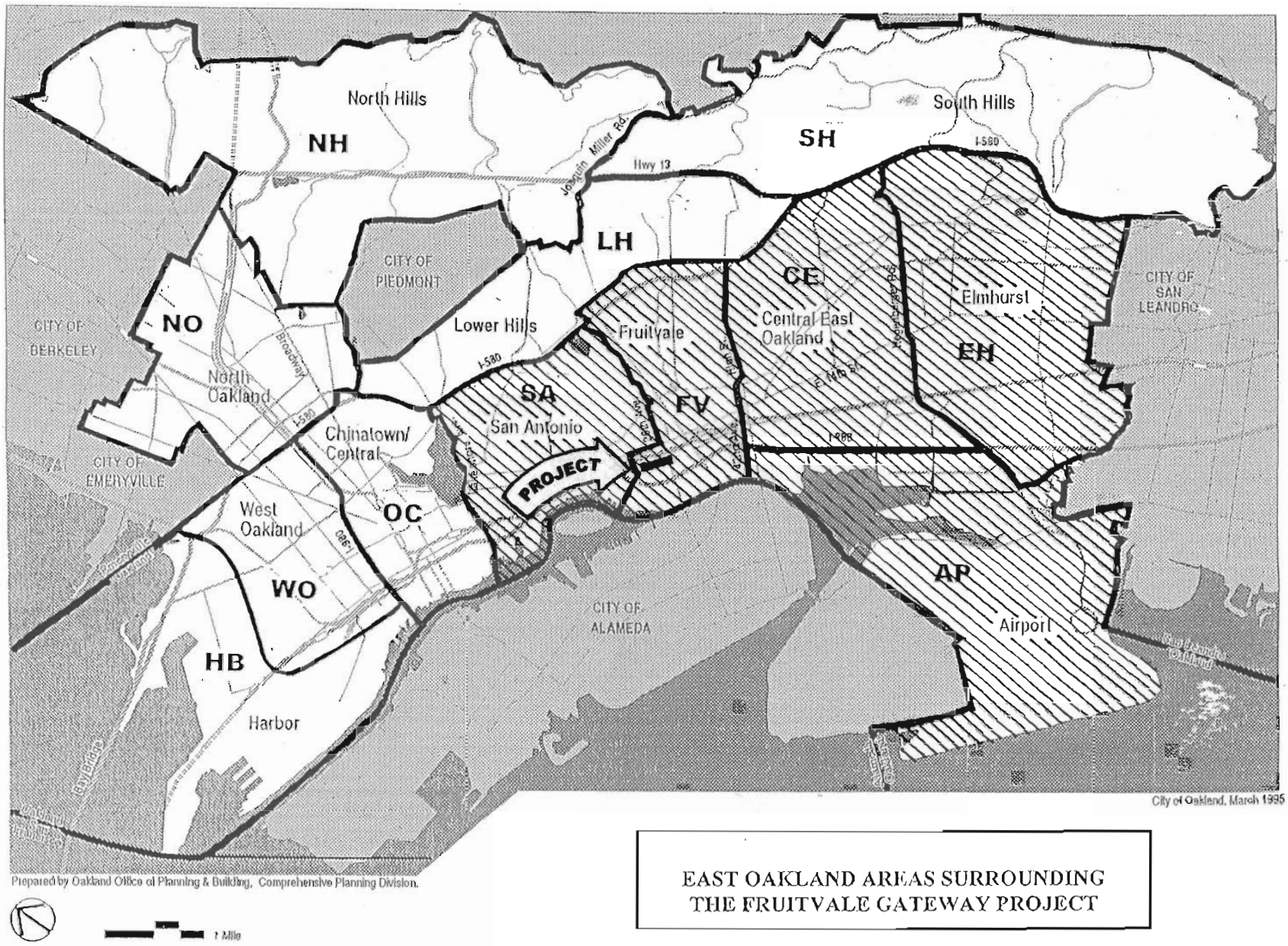
/a/	Project	Time Period	Change /b/	Oakland TAZ	CMA TAZ	Planning District	Sq. Ft.	Empls	SF/Emp	Location	Comments
	PROJECTS COMPLETED BY 2000										
	K-Mart (42nd & High)			345	345	FV	130,000	173	750	42nd + High	Space estimate now appears low (see below)
	Fruitvale Station Retail (I-880)			555	555	FV	120,000	200	600		
x	Smart & Final (42nd & International)			557	557	FV		35		1243 42nd Ave.	Adaptive reuse
	Webvan Distribution			108	108	CE	330,000	200	1,650	Coliseum Way	
	Eastmont Town Center (med/lib/govt)			625	625	CE	146,000	292	500		Decline in retail employment as well
	Catellus Airport Business Park			130	130	EH	275,000	368	750	Edes & Jones	
	Federal Express - distribution center			130	130	EH	250,000	333	750	Edes & 85th	
	US Postal Service - Internal Mail Sorting Warehouse			130	130	EH	150,000	350	430	85th Avenue	Some shift in jobs from West Oakland
x	Holiday Inn Express			595	595	EH	70 rms	35	0.5 emp/rm	Airport Drive	
x	Loss of "the Castle" / Coliseum parking expansion			599	599	EH		(30)			Net change in employment
x	Airport Expansion			127/633	127/633	AP		671			
	PROJECTS TO BE COMPLETED 2000 - 2005										
x	Homewood Suites by Hilton	1		95	95	SA	144 rms	86	0.6 empl/rm	1103 Embarcadero	Completed 2002
O	Albertson's expansion	1	C	539	539	SA	+19,400	32	600	247 East 18th St.	New 36,400 s.f. store to replace 17,000 s.f. store; completed 05
x	Executive Inn expansion	1		544	544	SA	82 rms	33	0.4 emp/rm	1755 Embarcadero	Completed
O	Ground floor commercial in residential development	1	N	547	547	SA	3,000	9	350	1515 14th Ave.	Completed 2004
O	New public school facilities	1	C	105	105	FV		70		Former Montgomery Wards site	Completed
O	Former K-Mart occupied by Home Depot, and adjacent tenant	1	N	345	345	FV	211,000	281	750	42nd + High	165,000 s.f. Home Depot and 46,000 s.f. in adjacent space; additional on-site employment of 108
	Fruitvale BART - mixed use (clinic, office, retail)	1		556	556	FV	75,000	188	400		Completed 2004
O	Cal Crew development	1	N	621	621	FV		1		Glasscock at Derby	Includes relocated historic boathouse
	Additional dev/infill	1		108	108	CE		200			
O	International Blvd. + 54th Ave.	1	N	119	119	CE				5406-5424 International Blvd. + 1416-1420 54th Ave.	In predevelopment 2004; mixed-use project; removes small auto use; assumes renovation adds 46 employees
O	New retail / office	1	N	119	119	CE	4,283	12	350		
O	Renovated grocery / retail	1	N	119	119	CE	34,161	68	500		
	Amtrak Intercity Rail Station	1		125	125	CE		10		73rd & San Leandro	Amtrak
U	Loss of industrial uses for new development	1		125	125	CE		(53)		East side of San Leandro St.	Enables development of Coliseum Gardens
x	Eastmont Town Center - new police fac.; expanded retail	1		625	625	CE		400		73rd & Bancroft/MacArthur	New police facility replaces existing with some expansion; existing bldgs. at Bancroft end demolished and replaced with around 180,000 sq. ft. new retail development
	Durant Square - grocery and other retail	1		139	139	EH	48,000	107	450	International & Durant	45,000 marketplace to remain; completed
C	Additional infill / intensification	1		140	140	EH		60			
	Best Western	1		596	596	EH	76 rms	40	0.53 emp/rm	170 Hegenberger Loop	Completed
x	Courtyard by Marriott	1		596	596	EH	156 rms	101	0.65 emp/rm	350 Hegenberger	Completed
	Just Desserts	1		599	599	EH	64,525	145	450	550 85th Avenue	Completed
x	Airport expansion	1		127/633	127/633	AP		845			
x	Arrowhead Marsh (Site D)	1		128	128	AP	4,000 pkg spaces	20		End of Pardee Road	Use for interim airport parking
x	Hegenberger Annex (Site F) - office	1		128	128	AP	48,000	160	300	Hegenberger & Pardee (NW)	2.4-acre site; Port selling property
x	Hegenberger/Pardee (Site E) - R&D/office	1		128	128	AP	235,000	588	400	Hegenberger & Pardee (NE)	14-acre site; Port selling property (Lincoln)
x	7711 Oakport Road (Site A) - Key Source International	1		597	597	AP	9,000	20	450	7711 Oakport	1.3-acre site
	Edgewater Distribution Center - warehouse/industrial	1		597	597	AP	406,700	339	1,200	7200 Edgewater	Property sold to AMB/former Grand Auto; completed
	Edgewater/Pardee (Site C) - R&D	1		597	597	AP	30,000	67	450	Edgewater & Pardee Lane	Port sale of vacant site
O	Lexus Auto dealership	1	C	597	597	AP	25,000	56	450	Oakport Rd. @ Hassler Way	4-acre site; completed
C	Rainin Instrument Company	1		597	597	AP	180,000	250	720	7500 Edgewater Dr. @ Hassler	7.8-acre site; completed
	Zhone Technologies	1		597	597	AP	300,000	750	400	66th & Oakport	Partially completed 2002

/a/	Project	Time Period	Change /b/	Oakland TAZ	CMA TAZ	Planning District	Sq. Ft.	Empls	SF/Emp	Location	Comments
O	Hegenberger Gateway - retail (Wal-Mart, In-N-Out Burger, etc.)	1	N	597	597	AP	175,000	282	avg. 620	Hegenberger + I-880	17-acre site for 245,000 sq. ft. of total retail; formerly Metroport project
O	Infinity Auto Dealership	1	N	597	597	AP	20,000	44	450	Oakport Rd. @ Hassler Way	Approved 2003; under construction 2004
	PROJECTS TO BE COMPLETED 2005 - 2010										
O	Oak to 9th Project - Phases 1, 2, 3	2	N	95	95	SA					Predevelopment 11/05
O	Retail/commercial: neighborhood streets	2	N	95	95	SA	27,000	77	350	Oak to 9th Parcels A, F, B, C	Predevelopment 11/05
O	Central area neighborhood retail	2	N	95	95	SA	42,000	112	375	Oak to 9th Parcel G	Predevelopment 11/05
O	Project management and maintenance	2	N	95	95	SA		19		Oak to 9th Parcels A, F, G, B, C	Predevelopment 11/05
O	Removal of existing uses	2	N	95	95	SA		(95)		Oak to 9th Parcels A, F, G, B, C	Predevelopment 11/05
O	Eastlake commercial intensification/infill	2	N	97	97	SA		10			
F	801 International Blvd. mixed-use	2	N	97	97	SA	10,175	29	350	801 International Blvd.	Predevelopment 12/05
F	2681 Fruitvale Ave.	2		103	103	SA	2,791	8	350	Fruitvale @ E. 27th St. (SW corner)	Predevelopment 11/05
O	Eastlake commercial intensification	2	N	763	538	SA		10			
O	Commercial intensification/infill - E. 18th area + Eastlake	2	N	539	539	SA		33			Intensificiation of commercial district
O	Additional waterfront commercial	2	N	544	544	SA	40,000	117	350	Embarcadero Cove	Crowley site or other location
O	Additional development / infill / intensification	2	N	545	545	SA		30			Along International and/or near freeway
F	Fruitvale Gateway, Phases 1 and 2 - project management	2	N	105	105	FV		3		East 12th St. / 25th Ave. to Derby	Predevelopment 3/06 (TAZs 105 + 555); also removes existing employment
O	Seven Directions, clinic	2	N	554	554	FV	25,600	64	400	2946 International Blvd.	Approved 10/03; part of mixed-use housing project
F	Fruitvale Village, Phase 2 - community space + on-site proj. mgmt.	2	C	556	556	FV	7,000	5		BART parking lot	Second phase of transit village project; predevelopment 3/06
F	4021 International Blvd. mixed-use	2	N	557	557	FV	28,500	81	350	4021 International Blvd.	Predevelopment 2/06
x	International & 42nd/High Sts. - retail infill/development	2		566/557/579	566/557/579	FV/CE		150		International & 42nd/High & vicinity	Infill, intensification, and/or new development for larger retail uses; ~100,000 sq. ft.
C	Additional dev/infill	2		108	108	CE		80			
U	Coliseum Gardens Project	2		125	125	CE		35		6722 Olmstead	Approved 2004; includes social services, maint. + mgmt., and related
x	Eastmont Town Center - intensification	2		625	625	CE		76		73rd @ Bancroft/MacArthur	Some intensification of use; grd. floor commercial in new resid'l dev. as well
x	East Oakland Sports Center	2		130	130	EH	140,000	56	2,500		At Brookfield Park
x	Federal Express - expansion	2		130	130	EH	100,000	133	750	Edes & 85th	
O	Foothill Square - renovation and retail expansion	2	C	136	136	EH	180,000	395		MacArthur @ 106th + I-580	Retail space increased from 70,000 sq. ft. to 180,000 sq. ft., including new Albertson's. Major health care facilities remain. Employment increases by 268.
C	Additional development/infill	2		140	140	EH		60			
O	Spring Hill Hotel or similar hotel	2	T	596	596	EH	132 rms	92	0.7 emp/rm	Hegenberger Loop	
	Additional development/infill	2		599	599	EH		55			
O	Home Base Site - Phase 1 - retail	2	T	599	599	EH	200,000	267	750		25-acre site; about 17 acres Phase 1
x	Airport expansion	2		127/633	127/633	AP		653			
F	185 98th Ave. Commercial	2	N	595	595	AP	88,645	110	800	185 98th Ave.	Gas station, snack shop, restaurant, and dine-in fast food
x	7711 Oakport Road (Site A) - Key Source International	2		597	597	AP	2,000	5	450	7711 Oakport	Addition to existing building
C	Rainin Instrument Company	2		597	597	AP		60		66th + Oakport	Growth to capacity of new facility
O	Hegenberger Gateway - retail (rest of mall project)	2	N	597	597	AP	70,000	156	Avg. 450	Hegenberger + I-880	Rest of 245,000 s.f. retail on 17-acre site; formerly Metroport project
O	Hegenberger Gateway - commercial	2	N	597	597	AP	86,250	173	500	Hegenberger + I-880	6-acre commercial site; larger retail, auto dealerships, or hotel; formerly Metroport project
	PROJECTS TO BE COMPLETED 2010 - 2020/2025										
O	Oak to 9th Project - Phases 4, 5, 6, 7	3	N	95	95	SA					Predevelopment 11/05; also see Downtown Projects List for additional commercial space in Oak to 9th Project.
O	Retail/commercial: neighborhood streets	3	N	95	95	SA	14,000	40	350	Oak to 9th Parcels D, E	Predevelopment 11/05
O	Community, cultural, recreation uses	3	N	95	95	SA	18,000	30	600	9th Ave. Terminal	Predevelopment 11/05
O	Waterfront retail/restaurant	3	N	95	95	SA	79,000	264	300	Oak to 9th Parcels H, J, K, L	Predevelopment 11/05
O	Retail/commercial: park-oriented	3	N	95	95	SA	5,000	13	400	Oak to 9th Parcel M	Predevelopment 11/05

/a/	Project	Time Period	Change /b/	Oakland TAZ	CMA TAZ	Planning District	Sq. Ft.	Empls	SF/Emp	Location	Comments
O	Project management and maintenance	3	N	95	95	SA		26		Oak to 9th Parcels D, E, H, J, K, L, M	Predevelopment 11/05
O	Removal of existing uses	3	N	95	95	SA		(85)		Oak to 9th Parcels K, L, M	Predevelopment 11/05
F	Commercial intensification/infill - E. 18th area	3	N	96	96	SA		22			
O	Eastlake commercial intensification/infill	3	N	97	97	SA		20			
O	Con Agra site or nearby - mixed use development	3	N	100	100	SA	40,000	114	350		Opportunity site; development also replaces existing employment
F	OUSD Administration Building	3	N	536	536	SA		280		10th St. near channel	OUSD admin. shifts to nearby TAZ from TAZ 737 to allow for residential development of admin. Building site along channel.
O	Ground floor commercial in residential development	3	N	538	538	SA	10,000	29	350	E. 12th St.	Additional infill
O	Commercial infill and intensification	3	N	538	538	SA		50			Along International and/or near freeway
O	Eastlake commercial intensification/infill	3	N	763	538	SA		26			
O	Commercial intensification/infill - E. 18th area + Eastlake	3	N	539	539	SA		40			
F	Embarcadero Cove mixed use project	3	T	544	544	SA	39,000	111	350	1820-1830 Embarcadero + 924 22nd Ave.	Predevelopment 2/06; also replaces some existing employment
O	Additional development/infill	3	N	544	544	SA	40,000	117	350	Along Embarcadero and vicinity	Infill/intensification
x	Additional development/infill/intensification	3		545	545	SA		40		East 12th to 880 in vicinity of 14th Ave. and 17th Ave.	Older industrial areas near freeway transition to auto/service and other uses
O	Ground floor commercial in residential development	3	N	547	547	SA	3,000	9	350	Vicinity of 14th Ave.	
F	Fruitvale Gateway Phases 3 + 4 - commercial space + project mgmt.	3	N	105	105	FV	7,500	24		East 12th St. / 25th Ave. to Derby	Predevelopment 3/06 (TAZs 105 + 555)
O	Light Industrial / R+D and Retail infill	3	N	345	345	FV		200			Upgrading and infill
F	Fruitvale Gateway Phases 5 + 6 - commercial space + project mgmt.	3	N	555	555	FV	15,500	47		East 12th St. / 25th Ave. to Derby	Predevelopment 3/06 (TAZs 105 + 555); also removes existing employment
C	Additional development/infill/intensification	3		108	108	CE		250			
x	Loss of industrial uses for new development	3		125	125	CE		(165)		West side of San Leandro St.	Enables development of Coliseum Area Concept Plan
x	Coliseum Gateway Commercial District	3		125	125	CE				Vicinity of BART station and Coliseum, east of San Leandro St.	Part of Coliseum Station Area Concept Plan
x	Office / R&D	3		125	125	CE	640,000	1,600	400	Vicinity of BART station and Coliseum, east of San Leandro St.	Part of Coliseum Station Area Concept Plan
x	Retail	3		125	125	CE	140,000	215	650	Vicinity of BART station and Coliseum, east of San Leandro St.	Part of Coliseum Station Area Concept Plan
x	Airport Connector terminal and operations	3		125	125	CE		10		At BART station	
x	Coliseum Transit Village neighborhood commercial	3		125	125	CE	20,000	44	450	BART parking lot, west of San Leandro St.	Part of new residential development
F	Eastmont Town Center Intensification	3	N	625	625	CE		70		73rd + MacArthur/Bancroft	
x	73rd & International intensification	3		133/346	133/346	CE/EH		30		73rd & International & vicinity	Infill/intensification
C	Additional development/infill/intensification	3		130	130	EH		60			
O	Extended Stay America or similar hotel	3	T	131	131	EH	100 rms	50	0.5 emp/rm	Near Coliseum & BART connector	1.7-acre site
C	Additional development/infill/intensification	3		132	132	EH		80			
O	Foothill Square - office/commercial development	3	N	136	136	EH	60,000	171	350	MacArthur @ 106th and I-580	Longer term development behind retail, near I-580
x	MacArthur & 90th - community center	3		759	137	EH		25		MacArthur @ 89th/91st	Proposed community center with health clinic and day care
x	New public school	3		139	139	EH		50		Int'l. near 104th/105th	Replaces former auto dealership and church
C	Additional development/infill/intensification	3		140	140	EH		200			
	Additional development/infill/intensification	3		599	599	EH		195			
O	Home Base Site - Phase 2 - retail	3	T	599	599	EH	100,000	133	750		25-acre site; about 8 acres Phase 2
x	Airport expansion	3		127/633	127/633	AP		1,958			
x	Arrowhead Marsh (Site D) - R&D/distribution	3		128	128	AP	500,000	890	560	End of Pardee Road	34.4-acre site; eventual development
F	444 Hegenberger Road mixed-use	3	N	596	596	AP	25,000	71	350	444 Hegenberger Road	Retail/commercial component
x	Zhone Technologies	3		597	597	AP		107			More intensive use of facilities
O	Commercial / Light Industrial infill	3	N	622	622	AP		55			Infill and intensification
F	Tidewater Area mixed-use	3	N	622	622	AP	40,000	114	350	Locations in TAZ	Potential mixed-use opportunity sites; could replace some existing employment

/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'U' indicates updated assumptions for Uptown Project EIR, May 2003. 'C' indicates updated assumptions for Central Station Project, December 2003. 'O' indicates updated assumptions for Oak to 9th EIR, November 2004. 'K' indicates updated assumptions for Kaiser EIR, April 2005. 'F' indicates updated assumptions for Fruitvale EIRs, February 2006.
/b/ Codes indicate change made. C = change in number of units and/or number of households; N = new project added to list; T = change in time period assumed for development and occupancy.
T = change in time period assumed for development and occupancy.

Source: City of Oakland; Hausrath Economics Group



EAST OAKLAND AREAS SURROUNDING
THE FRUITVALE GATEWAY PROJECT

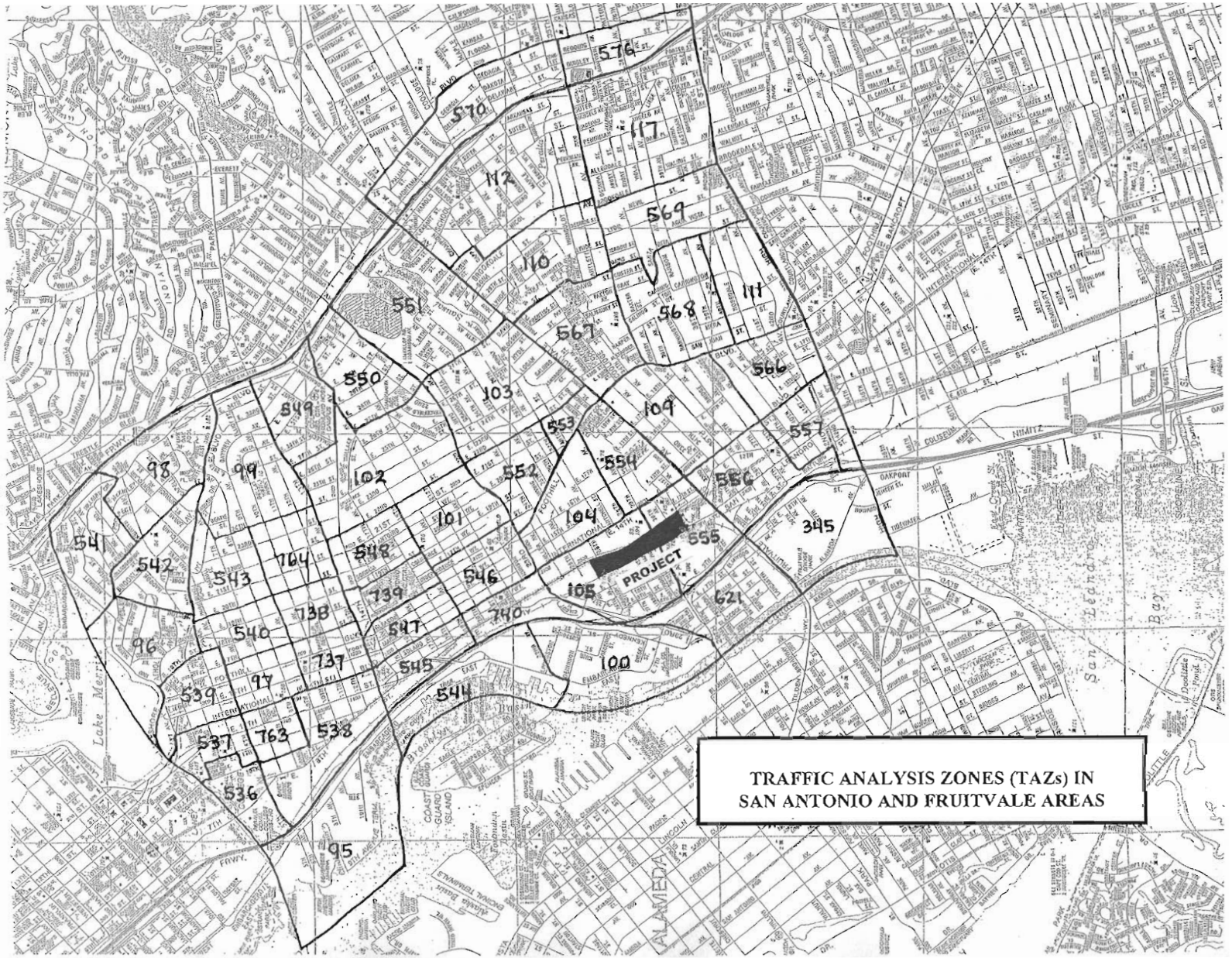

PROJECT
TRAFFIC ANALYSIS ZONES (TAZs) IN
SAN ANTONIO AND FRUITVALE AREAS

Figure D-2

APPENDIX E

Alternatives Background Data: Relative Trip Generation

APPENDIX E

RELATIVE TRIP GENERATION FOR ALTERNATIVES ANALYZED IN THE GATEWAY COMMUNITY DEVELOPMENT PROJECT EIR

Project Alternative	Land Use	Size	Daily Total	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Relative Trip Generation Percentage to EIR Daily	AM	PM
Proposed Project	Condominiums/Townhouses (units) [a]	810	3,107	38	187	225	183	90	273	----	----	----
	Commercial (1,000 sq. ft.)[b]	30	1,330	16	10	26	41	52	93			
	Total (Vehicle Trips)	----	4,437	54	197	251	224	142	366			
Alternative 1B: Redevelopment Consistent with General Plan	Condominiums/Townhouses (units) [a]	390	1,699	21	104	125	101	50	150	73%	69	70%
	Commercial (1,000 sq. ft.)[b]	28	1,244	16	9	25	42	52	94			
	Industrial (1,000 sq. ft.)[c]	45	304	22	3	25	2	11	13			
	Total (Vehicle Trips)	----	3,247	59	116	175	145	113	257			
Alternative 2: Partial Site / Development on Portion of the Site Controlled by Project Sponsor	Condominiums/Townhouses (units) [a]	538	2,194	28	134	162	131	65	195	83%	76%	81%
	Commercial (1,000 sq. ft.)[b]	34	1,510	17	11	28	45	58	103			
	Total (Vehicle Trips)	----	3,704	45	145	190	176	123	298			
Alternative 3: Light Industrial / Live Work	Condominiums/Townhouses (units) [a]	18	122	2	9	11	8	4	12	25%	37%	15%
	Industrial (1,000 sq. ft.)[c]	145	981	72	10	82	5	39	44			
	Total (Vehicle Trips)	----	1,103	74	19	93	13	43	56			

NOTE: Alternative 1A : No Project / Continuation of Recent/Existing Uses and Buildings is not included for this comparison of Project Alternatives to the Proposed Project.

a For the Residential Condominium/Townhouse Land Use (230), the fitted curve equation was used to determine the trip generation. An 18 percent modal split reduction to account for transit usage has been taken based on an average of 2000 Census Journey to Work data for census tracts in the vicinity of the project site.

b Commercial trip generation was determined using the fitted curve equation for the Specialty Retail Land Use (814). It should be noted that AM peak hour trip generation rates are not available for the Specialty Retail Center land use. Consequently, AM peak hour rates for Specialty Retail were derived by adjusting Shopping Center Land Use (820) AM peak hour rates to fit the Specialty Retail Center use.

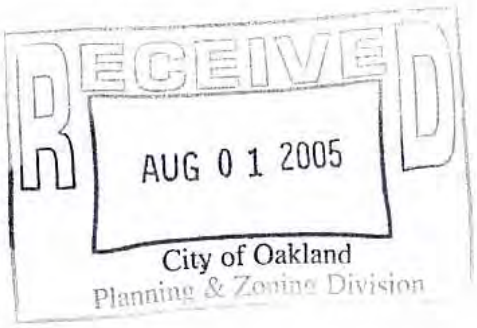
c For the General Light Industrial Land Use (110), the fitted curve equation was used to determine the trip generation.

SOURCE: Korve Engineering (2007), ITE (2003), ESA (2007)

APPENDIX F

Water Supply Assessment

EAST BAY
MUNICIPAL UTILITY DISTRICT



July 26, 2005

Darin Ranelletti, Planner III
Community and Economic Development Agency
Planning & Zoning Services Division
City of Oakland
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612-2031

Dear Mr. Ranelletti:

Re: Water Supply Assessment – Fruitvale Gateway Project

This letter responds to your request of May 25, 2005 for water agency consultation concerning the Fruitvale Gateway Project (Enclosure 1). The East Bay Municipal Utility District (EBMUD) appreciates the opportunity to provide this response.

Pursuant to Sections 10910-10915 (SB-610) of the California Water Code, the project meets the threshold requirement for an assessment of water supply availability based on the amount of water this project would require, which would be greater than the amount required by a residential subdivision with 500 dwelling units.

Please note that this assessment addresses the issue of water supply only and is not a guarantee of service, and future water service is subject to rates and regulations in effect at the time.

Project Demand

The water demands for the Fruitvale Gateway Project area are accounted for in EBMUD's water demand projections as published in EBMUD's 2000 Urban Water Management Plan (UWMP/Enclosure 2). EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns. The current water demand for the existing land uses in the Fruitvale Gateway Project area is about 3,800 gallons per day (gpd). The estimated water demand based on the projected water consumption supplied by the applicant for the proposed development is 239,000 gpd and is consistent with EBMUD's demand projections that indicate densification of these types of land uses.

Project Area

The Fruitvale Gateway Project area is located at the corner of 29th Avenue and East 12th Street. The project area consists of approximately 11 acres. At ultimate build-out,

the complex is proposed to contain approximately 881 residential units and 72,000 square feet of commercial space.

EBMUD Water Demand Projections

The water consumption of EBMUD customers has remained relatively level in recent years in spite of population and account growth. Between 1987 and the present, consumption has ranged from a high of approximately 220 million gallons per day (mgd) in 1987 to a low of 170 mgd in 1989. Based on extensive forecasting in EBMUD's Water Supply Management Program (WSMP) and recent land use based demand forecasting, the WSMP forecast for 2020 water demand of 277 mgd can be reduced to 229 mgd with successful water recycling and conservation programs that are in place. The Fruitvale Gateway Project will not change the EBMUD 2020 demand projection.

EBMUD Water Supply and Water Rights

EBMUD has water rights and facilities to divert up to a maximum of 325 mgd from the Mokelumne River, subject to the availability of Mokelumne River runoff and the prior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders, the appropriative water rights permits and licenses that have been issued by the State, pre-1914 rights and riparian rights. Conditions that restrict EBMUD's ability to use its 325 mgd entitlement include:

- Upstream water use by prior right holders.
- Downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources.
- Drought, or less than normal rainfall for more than a year.
- Emergency outage.

During periods of drought, runoff from the Mokelumne River is insufficient to supply the 325 mgd entitlement. EBMUD studies indicate that, with its current water supply and the water demands expected in 2020, deficiencies in supply of up to 67 percent could occur during a multi-year drought period.

EBMUD UWMP

The UWMP, adopted by the Board of Directors in Resolution No. 33242-01, includes planning level analyses at the County- and EBMUD-wide levels for existing and projected water demand. A summary of EBMUD's demand and supply projections in five-year increments is provided in a table (Enclosure 3) from the UWMP. The data reflects the latest actual and forecast values.

EBMUD's evaluation of water supply availability accounts for the diversions of both upstream and downstream water right holders and fishery releases on the Mokelumne River. Fishery releases are based on the requirements of a 1998 Joint Settlement Agreement (JSA) between EBMUD and State and Federal wildlife agencies. The JSA requires EBMUD to make minimum flow releases from its reservoirs to the lower Mokelumne River to benefit the fishery. As this water is released downriver, it is, therefore, not available for use by EBMUD's customers.

The available supply shown in the table (Enclosure 3) in years 1, 2 and 3 of a multiple-year drought was determined by EBMUD's hydrologic model with the following assumptions:

- EBMUD Drought Planning Sequence is used for 1976, 1977 and 1978.
- Total system storage is depleted by the end of the third year of the drought.
- The diversions by Amador and Calaveras Counties upstream of Pardee Reservoir increase over time.
- Releases are made to meet the requirements of senior downstream water right holders and fishery releases are made according to the JSA.

As discussed under the Drought Management Program section in Chapter 3 of the UWMP, EBMUD's system storage generally allows it to continue serving its customers during dry-year events. EBMUD imposes rationing based on the projected storage at the end of September. By imposing rationing in the first dry year of potential drought, EBMUD attempts to minimize rationing in subsequent years if a drought persists while continuing to meet its current and subsequent-year fishery flow release requirements and obligations to downstream agencies. Table 3-1 in the UWMP summarizes the guidelines for consumer water reduction goals based on system storage.

In the table (Enclosure 3), "Single Dry" year (or Year 1 of "Multiple Dry Years") is determined to be a year that EBMUD would implement Drought Management Program elements at the "moderate" stage with the goal of achieving between 0 to 15 percent reduction in customer demand. Year 2 of Multiple Dry Years is determined to be a year that EBMUD would implement Drought Management Program elements at the "severe" stage with the goal of achieving between 15 to 25 percent reduction in customer demand. In Year 3 of the multiple-year drought, deficiencies from about 48 percent in year 2005 to about 67 percent in year 2020 are forecast to occur. Therefore, a supplemental supply is needed, which is defined by EBMUD as the additional amount of water necessary to limit customer deficiency to 25 percent in a multiple-year drought while continuing to meet the requirements of senior downstream water right holders and the provisions of the 1998 JSA.

Supplemental Water Supply and Demand Management

The goals of meeting projected water needs and increased water reliability rely on three components: supplemental supply, water conservation and recycled water.

Chapter 2 of the UWMP describes EBMUD's supplemental water supply project alternatives to meet its long-term water demand. To address the need for a supplemental water supply during droughts, EBMUD signed a contract in 1970 with the Federal government for a supplemental supply from the Central Valley Project (CVP). In 2001, EBMUD certified the environmental documentation amending its CVP contract 14-06-200-5183A, reducing EBMUD's contract from 150,000 acre-feet (AF)/year to an entitlement not to exceed 133,000 AF in any one year or 165,000 AF over any three consecutive years. In 2001, EBMUD signed a Memorandum of Agreement with the City of Sacramento, the County of Sacramento and the U.S. Bureau of Reclamation to study a joint regional water project on the Sacramento River near Freeport. The Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) of the Freeport Regional Water Project identifies several regulatory permits and approvals required for the implementation of the project alternatives. These are listed in Table 2-6 of the Freeport Regional Water Project Draft EIR/EIS, July 2003, and incorporated in the Final EIR/EIS for the project, which was certified in April 2004.

Chapter 2 of the UWMP also describes other supplemental water projects, including the development of groundwater storage within EBMUD's service area. EBMUD is studying the environmental impacts of these proposed projects. Specific capital outlay and financing information for these projects are included in EBMUD's FY04-05 Capital Improvement Program and Five-Year Plan. The Freeport project would also allow for a future groundwater conjunctive use component and, along with the proposed local groundwater projects, emergency interties and planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area. Without a supplemental water supply source, continued conservation efforts and further use of recycled water, deficiencies in supply are projected as noted above.

The Fruitvale Gateway Project presents an opportunity to incorporate many water conservation measures. Conditions of approval for the implementation of the Fruitvale Gateway Project should require that the project comply with the Landscape Water Conservation Section of the City's Municipal Code, Article 9-4.54 of Chapter 4 of Title 9. EBMUD staff would appreciate the opportunity to meet with the project sponsor to discuss water conservation programs and best management practices applicable to the proposed project. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the project.

The project sponsor should contact David J. Rehnstrom, Senior Civil Engineer, at (510) 287-1365 for further information.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning Division

WRK:NJR:sb
sb05_187a.doc

Enclosures: 1. Letter of Request for Water Supply Assessment dated May 25, 2005
2. EBMUD's 2000 Urban Water Management Plan
3. EBMUD's Projected Demand and Available Supply Table

cc: Board of Directors w/o Enclosure 2

bcc: M. Miller
R. Kanouse
J. Callahan
E. McCormick
R. Harris
D. Wallace
J. Freid
F. Etheridge
D. Rehnstrom
N. Rapp
J. Rios
Records Management
Chron
File: WSA 05-004

Enclosure 1

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, SUITE 2114 • OAKLAND, CALIFORNIA 94612-2037

Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3911
FAX (510) 238-4730
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MAY 26 2005
WATER SERVICE PLANNING

May 25, 2005

William Kirkpatrick
Manager of Water Distribution Planning Division
East Bay Municipal Utility District
P.O. Box 24055, MS 701
Oakland, CA 94607

RE: Request for Confirmation of Water Supply Assessment for the Proposed Fruitvale Gateway Project

Dear Mr. Kirkpatrick:

Pursuant to Section 10910 of the California Water Code, the City of Oakland is submitting this request to the East Bay Municipal Utility District (EBMUD) for a water supply assessment. The City is requesting EBMUD to determine whether the projected water demand associated with the proposed Fruitvale Gateway Project was included in the adopted Urban Water Management Plan and, if it was not included, to prepare a water supply assessment as outlined in Section 10910(c)(3) of the Water Code. The assessment is required in order to determine whether adequate water supply is available to meet the projected water demand of the project.

The project site consists of approximately 11 acres located at the corner of 29th Avenue and East 12th Street in Oakland. Currently the site is occupied by a variety of commercial and light industrial uses including a 130,219 square-foot self-storage facility, 36,796 square feet of retail space, and 103,750 square feet of light industrial space. The proposed project involves removing all of the existing uses from the site and constructing up to 881 residential units and approximately 72,000 square feet of commercial space.

The City respectfully requests that EBMUD prepare a water supply assessment for the proposed project. An Initial Study of the project's potential environmental impacts is currently being prepared. The City acknowledges that this request for an assessment is a required part of the environmental document for the project. We appreciate your prompt response to this request.

Please contact me at (510) 238-3663 or by e-mail at dranelletti@oaklandnet.com if you need additional information.

Sincerely,

Darin Ranelletti
Planner III

Enclosure 3

PROJECTED DEMAND AND AVAILABLE SUPPLY
EAST BAY MUNICIPAL UTILITY DISTRICT

(million gallons per day - mgd)

	2000	2005	2010	2015	2020
Customer Demand[1]	230	242	257	267	277
Adjusted for Conservation[2]	(8)	(14)	(20)	(27)	(34)
Adjusted for Recycled Water[3]	(6)	(9)	(11)	(12)	(14)
Planning Level of Demand	216	219	226	228	229
Available Supply & Need for Supplemental Supply					
Normal Year	>216	>219	>226	>228	>229
Supplemental Supply Need	*0*	*0*	*0*	*0*	*0*
Single Dry Year (Multiple Dry Years - Year 1) Moderate Stage (approximately 7% deficiency)[4]	200	203	210	212	213
Supplemental Supply Need	*0*	*0*	*0*	*0*	*0*
Multiple Dry Years - Year 2 Severe Stage (approximately 25% deficiency)[4]	162	164	169	171	172
Supplemental Supply Need	*0*	*0*	*0*	*0*	*0*
Multiple Dry Years - Year 3					
Available Supply	125	114	95	84	77
Deficiency	42%	48%	58%	64%	67%
Supplemental Supply Need[5] (to limit deficiency to 25%)	*87*	*102*	*128*	*142*	*154*

1. *Demand taken from the 2000 Demand Study.*
2. *Conservation water savings goals from the WCMP 1999 Annual Report, 2 mgd in 1999 and 34 mgd for year 2020, linearly interpolated into five-year increments.*
3. *Chapter 5 of UWMP.*
   Note: Conservation and Reclamation savings reported are those attributed to programs which are a part of the 1993 WSMP. Reference Chapter 6 of UWMP.
4. *Drought conditions per Table 3-1, UWMP.*
5. *The supplemental supply need is calculated from modeling studies and is the amount of water needed to limit customer deficiency to 25 percent and to implement all provisions of the 1998 Joint Settlement Agreement.*