HIGH & MACARTHUR MIXED-USE PROJECT

DRAFT EIR

City of Oakland

October 2012

URBAN PLANNING PARTNERS INC.

HIGH & MACARTHUR MIXED-USE PROJECT

Draft EIR
SCH 2011052049

Prepared for the City of Oakland

By:

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October 2012

CITY OF OAKLAND

Department of Planning, Building and Neighborhood Preservation
250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California, 94612-2032

COMBINED NOTICE OF RELEASE AND AVAILABILITY OF THE DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC HEARINGS ON THE HIGH AND MACARTHUR MIXED USE PROJECT

PROJECT TITLE: **HIGH AND MACARTHUR MIXED USE PROJECT EIR**
CASE NOS. **CMDV10-312; ER10-0001**
PROJECT SPONSOR: **AMG AND ASSOCIATES, LLC**

PROJECT LOCATION: The project site is approximately 0.93 acres and is comprised of 3 parcels located at the southwest corner of the High Street and MacArthur Boulevard intersection. Addresses for the project site are 4311 and 4317 MacArthur Boulevard; APNs for the site parcels are 030-1982-121, 030-1982-122, and 030-1982-123. The site is on the Cortese List of hazardous waste sites.

DESCRIPTION OF PROJECT: The proposed project consists of a five-story mixed use senior housing development with 115 one-bedroom senior apartments, approximately 3,446 square feet of ground floor commercial space, and 65 parking spaces. The commercial space would be in two separate areas with the main commercial area located at the corner of High Street and MacArthur Boulevard. A separate retail area labeled as a "kiosk" on the floor plans would front onto High Street. A residential lobby fronting High Street is proposed between the two commercial spaces. Parking is proposed to be behind the commercial spaces on the ground level, which would also include a loading zone, various mechanical/equipment rooms, and an art feature located at the corner of High Street and MacArthur Boulevard. Above the ground floor uses, the building would include four stories of residential use with approximately 28-29 units per floor. The residential component of the building would be designed around an interior central courtyard. All the units are proposed to be one-bedroom and would average approximately 540 square feet. The maximum building height is 60 feet, with the tallest portion along the High Street elevation.

ENVIRONMENTAL REVIEW: The City has prepared an Initial Study that identified areas of probable environmental effects and screened out environmental factors that will not be further studied in the Draft Environmental Impact Report (DEIR). The factors not further studied in the DEIR include: agricultural resources, biological resources, cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation and utilities and service systems. The Initial Study was circulated for a thirty (30) day review period along with a Notice of Preparation and is available on CD in the back cover of the DEIR.

A DEIR has now been prepared for the project, under the requirements of the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Section 21000 et. seq., which addresses environmental topics not screened out in the Initial Study. Specifically, the DEIR analyzes potentially significant environmental impacts in the following environmental categories: Air Quality and Greenhouse Gas Emissions; Noise and Vibration; Hazards and Hazardous Materials; Transportation and Circulation; and Aesthetic Resources. Copies of the DEIR are available for review or distribution to interested parties at no charge at the City of Oakland, Department of Planning, Building and Neighborhood Preservation, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m. The Draft EIR may also be reviewed at the following website:
http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/DOWD009157

PUBLIC HEARINGS: The City Planning Commission will conduct a public hearing on the Draft EIR and the project on **December 5, 2012 at 6:00 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 EIR 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 Lynn Warner, Planner III, City of Oakland, Department of Planning, Building, and Neighborhood Preservation, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; 510-238-6538 (fax); or e-mail to lwarner@oaklandnet.com. Comments should be received no later than 4:00 p.m. on December 10, 2012. Please reference case numbers CMDV10-312; ER10-0001 in all correspondence. 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 City of Oakland, Department of Planning, Building and Neighborhood Preservation on or prior to 4:00 p.m. on December 10, 2012. 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 Lynn Warner at 510-238-6983 or lwarner@oaklandnet.com.

October 26, 2012
Case File Numbers CMDV10-312; ER10-0001

(for) Scott Miller
Interim Planning and Zoning Director, Environmental Review Officer

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2011052049

Project Title: High & MacArthur Mixed Use Project

Lead Agency: City of Oakland | Contact Person: Lynn Warner
Mailing Address: 250 Frank H. Ogawa Plaza, Suite 3315 | Phone: 510-238-6983
City: Oakland | Zip: 94612 | County: Alameda

Project Location: County: Alameda | City/Nearest Community: Oakland
Cross Streets: High Street and MacArthur Boulevard | Zip Code: 94612
Longitude/Latitude (degrees, minutes and seconds): 37 ° 47 ′ 13.0 ″ N / 122 ° 11 ′ 41.5 ″ W | Total Acres: 0.93
Assessor's Parcel No.: 030-1982-121, 122, and 123 | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: I-580 | Waterways: N/A
Airports: | Railways: N/A | Schools:

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☑ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other:

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☑ Site Plan
☐ Rezone ☐ Prezone ☑ Use Permit ☑ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☑ Other: Design Review/ Variance

Development Type:

☑ Residential: Units 115 Acres
☐ Office: Sq.ft. Acres Employees
☑ Commercial: Sq.ft. 3,446 Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document:

☑ Aesthetic/Visual ☐ Agricultural Land ☑ Air Quality ☐ Archeological/Historical ☐ Biological Resources ☐ Coastal Zone ☐ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☐ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☐ Geologic/Seismic ☐ Minerals ☑ Noise ☐ Population/Housing Balance ☐ Public Services/Facilities
☐ Recreation/Parks ☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☐ Solid Waste ☑ Toxic/Hazardous ☑ Traffic/Circulation
☐ Vegetation ☐ Water Quality ☐ Water Supply/Groundwater ☐ Wetland/Riparian ☐ Growth Inducement ☐ Land Use ☑ Cumulative Effects ☐ Other:

Present Land Use/Zoning/General Plan Designation:

C-30 District Thoroughfare Comm.; S-4 Design Review Combining; C-31 Special Retail Comm./Neighborhood Center Mixed Use

Project Description: *(please use a separate page if necessary)*

Construct a new mixed use development containing 115 senior apartments, approximately 3,446 square feet of ground floor commercial space, and 65 parking spaces.

The City prepared and circulated an Initial Study that identified areas of probable environmental effects and screened out environmental factors that will not be further studied in the Draft Environmental Impact Report (DEIR). The factors not further studied in the DEIR include: agricultural resources, biological resources, cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation and utilities and service systems.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

____	Air Resources Board	____	Office of Emergency Services
____	Boating & Waterways, Department of	____	Office of Historic Preservation
____	California Highway Patrol	____	Office of Public School Construction
X	Caltrans District # 4	____	Parks & Recreation, Department of
____	Caltrans Division of Aeronautics	____	Pesticide Regulation, Department of
____	Caltrans Planning	____	Public Utilities Commission
____	Central Valley Flood Protection Board	X	Regional WQCB # 2
____	Coachella Valley Mtns. Conservancy	____	Resources Agency
____	Coastal Commission	____	S.F. Bay Conservation & Development Comm.
____	Colorado River Board	____	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
____	Conservation, Department of	____	San Joaquin River Conservancy
____	Corrections, Department of	____	Santa Monica Mtns. Conservancy
____	Delta Protection Commission	____	State Lands Commission
____	Education, Department of	____	SWRCB: Clean Water Grants
____	Energy Commission	____	SWRCB: Water Quality
____	Fish & Game Region # ____	____	SWRCB: Water Rights
____	Food & Agriculture, Department of	____	Tahoe Regional Planning Agency
____	Forestry and Fire Protection, Department of	X	Toxic Substances Control, Department of
____	General Services, Department of	____	Water Resources, Department of
____	Health Services, Department of		
____	Housing & Community Development	____	Other: ____
____	Integrated Waste Management Board	____	Other: ____
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date October 26, 2012 Ending Date December 10. 2012

Lead Agency (Complete if applicable):

Consulting Firm: Urban Planning Partners
Address: 505 17th Street, 2nd Floor
City/State/Zip: Oakland, CA 94612
Contact: Lynette Dias, Principal
Phone: 510-251-8210

Applicant: AMG & Associates, c/o Alexis Gevorgian
Address: 16633 Ventura Boulevard, Suite 1014
City/State/Zip: Encino, CA 91436
Phone: 818- 380-2600

Signature of Lead Agency Representative: _____ **Date:** 10/26/12

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

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APPENDICES

Figures

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I. INTRODUCTION

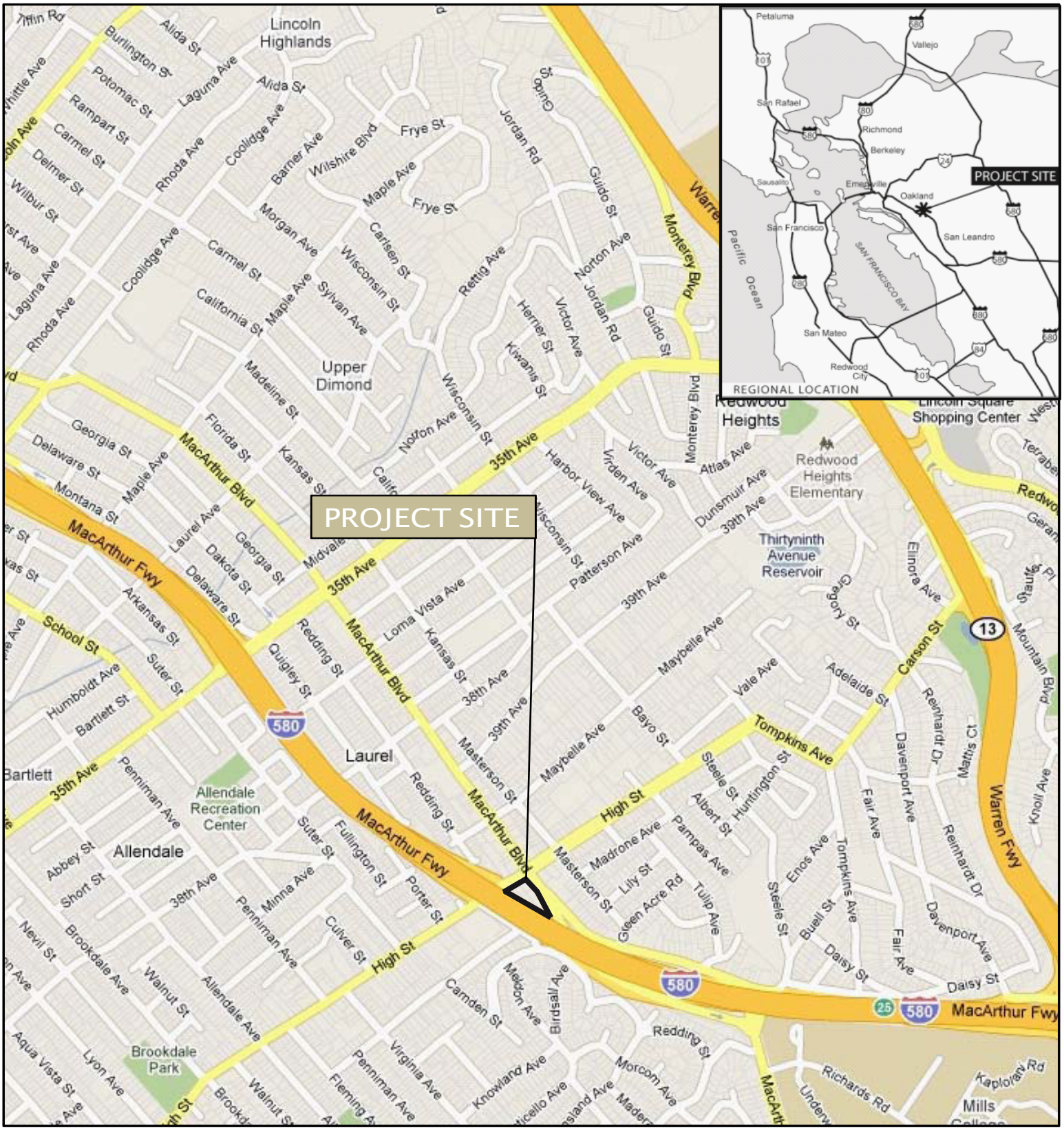
A. PURPOSE OF EIR

In compliance with the California Environmental Quality Act (CEQA), this Draft Environmental Impact Report (EIR) describes the environmental consequences of the proposed High and MacArthur Mixed-Use Project (project). This EIR is designed to inform City staff, the Planning Commission, City Council, other responsible and interested agencies, and the general public of: (1) the proposed project and the potential environmental consequences of the project; (2) Standard Conditions of Approval and mitigation measures necessary to lessen or avoid significant adverse impacts; and (3) a reasonable range of feasible alternatives to the project. The information contained in the EIR will be reviewed and considered by public agencies prior to making a decision to approve, reject, or modify the proposed project.

The City of Oakland (City) is the lead agency for environmental review of the proposed project and as such has made the Draft EIR available for public review for the period identified in the Notice of Availability published with this document. During this time, written comments may be submitted to the City Planning Division at the address indicated on the Notice of Availability. Responses to all comments received on the environmental analysis in the Draft EIR during the specified review period will be included in the Response to Comments/Final EIR document.

B. PROPOSED PROJECT

The High & MacArthur Mixed-Use Project seeks to redevelop and revitalize an underutilized site in Oakland to provide a mixed-use senior housing development (residential and commercial). The project would include construction of a five-story building containing 115 market-rate and affordable, one-bedroom, senior apartments; 3,446 square feet of ground-floor commercial space; and 65 parking spaces. The 0.93-acre project site is located in Central Oakland on the edge of the Laurel District at the southwest corner of the High and MacArthur Boulevard intersection. The triangular shaped site is bound by MacArthur Boulevard to the north and east, MacArthur Freeway to the south, and High Street to the west, as shown in Figure I-1. The project site includes three privately owned parcels. The parcels are vacant except for a billboard (to be removed as part of the project) and were at one time occupied by a PG&E service yard, an auto repair shop, and a market.



Project Site

0 500 1000
feet

FIGURE I-1
High & MacArthur Mixed-Use Senior Housing Project EIR
Project Location and Regional Vicinity Map

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION 2000 & GOOGLE EARTH 2010

C:\UPP\P\10-005 OAK\Products\EIR\Admin 1\Figures\Figure I-1 (06/14/10, revised 04/22/2011)

The residential component of the building would be designed around an interior central courtyard. All the units are proposed to be one-bedroom and would average approximately 540 square feet in size. The maximum building height is 60 feet, with the tallest portion along the High Street elevation as the terrain slopes down from the corner to the freeway.

C. EIR SCOPE

The City of Oakland circulated a Notice of Preparation (NOP) and an Initial Study. The following topics were excluded from discussion in the EIR because it was determined in the Initial Study and during the scoping period that these impacts would be less than significant: Agricultural/Timber Resources; Biological Resources; Cultural Resources; Geology, Soils and Seismicity; Land Use and Planning; Hydrology and Water Quality; Population and Housing; Mineral Resources; Public Services; Recreation; and Utilities and Service Systems. A detailed description of the project's impacts related to each of these topics is provided in the Initial Study (see Appendix A incorporated herein by reference).

The following environmental topics are addressed in this EIR:

A. Aesthetic Resources
B. Air Quality and Greenhouse Gases
C. Hazards and Hazardous Materials
D. Transportation and Circulation
E. Noise and Vibration

The NOP was published on May 18, 2011, and the public comment period for the scope of the EIR lasted from May 18, 2011 to June 16, 2011. The NOP was sent to property owners within 300 feet of the project site as well as to responsible and trustee agencies, organizations, and interested individuals. Additionally, the NOP was sent to the State Clearinghouse.

A scoping session was held for the project on June 15, 2011. Comments received by the City on the NOP at the scoping meeting were taken into account during the preparation of the EIR. NOP comments were received from public agencies, area property owners and concerned citizens regarding a wide range of issues to be addressed in this EIR. Topic areas that were most widely referenced in the NOP comment letters include transportation and circulation, hazards and hazardous materials, air quality, and aesthetics. Additionally, several comments related to non-CEQA topics (i.e., housing, parking, in support of the project). The NOP and written comments received

are included in Appendix A. Responses to non-CEQA topics and areas already covered in the Initial Study are included in Chapter 2, Summary.

On December 21, 2010, the Oakland City Council adopted the 2007-2014 Housing Element[1] and certified the Housing Element EIR. The California Department of Housing and Community Development also has certified the Housing Element as being in compliance with the requirements of State law. The project site is identified as an opportunity site in the Housing Element. Development of the project site, at a level consistent with the proposed project of 115 senior housing units, was considered in the Housing Element EIR. This EIR, and the previously prepared Initial Study, tier off of the Housing Element EIR pursuant to the CEQA Statutes §21093, §21094 §21083.3 and CEQA Guidelines §15152, §15385, and §15183. Each topic section includes a discussion of the relevant Housing Element EIR findings and their relationship to the proposed project. The Housing Element EIR is available for review at the Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m. The Housing Element EIR may also be reviewed on the City's website at: http://www2.oaklandnet.com/-Government/o/CEDA/o/hcd/o/HPP/DOWD008428.

D. REPORT ORGANIZATION

This EIR is organized into the following chapters:

- *Chapter I – Introduction:* Discusses the overall EIR purpose; provides a summary of the proposed project; describes the EIR scope; and summarizes the organization of the EIR.
- *Chapter II – Summary:* Provides a summary of the impacts that would result from implementation of the proposed project, and describes Standard Conditions of Approval and mitigation measures recommended to avoid or reduce significant impacts.
- *Chapter III – Project Description*: Provides a description of the project objectives, project site, site development history, the proposed development, and required approval process.
- *Chapter IV – Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures*: Describes the following for each environmental technical topic: existing conditions (setting); Standard Conditions of

[1] City of Oakland, 2010. *Housing Element 2007-2014,* Appendix C: Detailed Site Inventory. December.

Approval; significance criteria; potential environmental impacts and their level of significance; Standard Conditions of Approval relied upon to ensure significant impacts would not occur; and mitigation measures recommended when necessary to mitigate identified impacts. Cumulative impacts are also discussed in each technical topic section. Potential adverse impacts are identified by levels of significance, as follows: less-than-significant impact (LTS), significant impact (S), and significant and unavoidable impact (SU). The significance level is identified for each impact before and after implementation of the recommended mitigation measure(s).

CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project are legally **not** required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the project in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City Standard Conditions of Approval and/or project-specific non-CEQA recommendations to address these issues.

- *Chapter V – Alternatives*: Provides an evaluation of three alternatives to the proposed project. The alternatives are included to meet the CEQA requirement that require an EIR to describe a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project. The CEQA alternatives include the: No Project/No Build Alternative; Reduced Development/Mitigated Alternative; and Commercial Alternative.
- *Chapter VI – CEQA-Required Assessment Conclusions:* Provides the required analysis of growth-inducing impacts; significant irreversible changes; effects found not to be significant; and significant unavoidable and cumulative impacts.
- *Chapter VII – Report Preparation*: Identifies preparers of the EIR, references used, and the persons and organizations contacted.
- *Appendices:* The appendices contain the Initial Study, NOP, written comments submitted on the NOP; comments made at the scoping session; air quality data; traffic data; and noise data.

All supporting technical documents and the reference documents are available for public review at the City of Oakland Community and Economic Development Agency, Planning Division, under case file CMDV10-312; ER10-0001.

The Draft EIR is available for public review for the period identified in the Notice of Availability attached to the front of this document. During this time, written comments on the Draft EIR may be submitted to the City of Oakland Community & Economic Development Agency, Planning Division at the address indicated on the Notice of Availability. Responses to all comments received on the environmental analysis in the Draft EIR during the specified review period will be included in the Response to Comments/Final EIR.

II. SUMMARY

A. OVERVIEW OF PROPOSED PROJECT

This EIR has been prepared to evaluate the potential environmental effects of the High and MacArthur Mixed-Use project. The 0.93-acre project site is located in Central Oakland, at the edge of the Laurel District, where the Laurel District transitions to the Mills College area. The triangular shaped site is bound by MacArthur Boulevard to the north and east, MacArthur Freeway to the south, and High Street to the west, as shown in Figure III-1. The site is mostly level and includes intermittent patches of weedy vegetation and bare earth.

The project seeks to create a mixed-use development (senior housing, neighborhood retail and services) on a vacant site in Oakland. The project would include one new five-story building with a maximum height of 60 feet. Key elements of the project include:

- 115 market-rate and affordable, one-bedroom apartments for seniors approximately 540 square feet in size;
- An interior courtyard that would provide easily accessible, private open space for residents;
- 3,446 square feet of ground floor commercial space split into two separate areas; a news or flower kiosk and a second general retail/consumer service commercial space; and
- Approximately 65 ground floor parking spaces.

B. SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in Chapter IV, Setting, Impacts, Standard Conditions of Approval (SCA) and Mitigation Measures. CEQA requires a summary to include discussion of: (1) potential areas of controversy; (2) significant impacts, Standard Conditions of Approval, and proposed mitigation measures; (3) cumulative impacts; (4) significant irreversible and unavoidable impacts; and (5) alternatives to the proposed project. Each of these topics is summarized below.

1. Potential Areas of Controversy

Letters and verbal comments received in response to the Notice of Preparation (NOP) dated May 18, 2011 raised a number of topics that the commenters wanted addressed in the EIR, including:

- Effects of increased traffic at and around the project site;
- Impacts on air quality;
- Effects of hazards and hazardous materials;
- Visual impacts related to building mass and height; and
- Compatibility of senior housing with the surrounding neighborhood.

The issues raised by these comments are addressed in Chapter IV, Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures. In addition, some of the comments offered in the NOP comment letters and during the scoping session addressed the merits of the project itself and not the potential adverse environmental impacts that are the subject of this EIR. The City staff and Planning Commission will consider these comments as part of its review of the requested project approvals, independent of the CEQA analysis. Additionally, several comments requested that the EIR include information that was analyzed in the Initial Study. Verbal comments offered by those in attendance at the CEQA scoping session, held on June 15, 2011, included many of the comments offered in writing as comments on the NOP. Copies of the NOP and written comment letters are included in Appendix A. A summary of the non-CEQA comments and topics already addressed in the Initial Study is provided below.

- **Sustainability.** The commenter has requested that the EIR quantify the carbon footprint from all construction activity planned for the proposed project including tree removal activities. As the project is not proposing to remove any trees as part of the construction activity, tree removal activities will not be addressed in either the Initial Study or EIR for this project. Impacts related to construction activities will be addressed as part of the analysis completed in the EIR.
- **Relationship of Building to Fault Lines.** Analysis related to Seismicity was completed as part of the Initial Study for the project and can be found on pages 26-33 of the High & MacArthur Mixed-Use Project Initial Study document published on May 18, 2011; as a result this topic will not be addressed in the EIR.
- **Open Space/Parks.** Analysis related to Open Space/Parks was completed as part of the Initial Study for the project and can be found on pages 13 and 59 of the High & MacArthur Mixed-Use Project Initial Study document

published on May 18, 2011; as a result this topic will not be addressed in the EIR.

- **Population/Jobs/Housing.** Analysis related to Population and Housing was completed as part of the Initial Study for the project and can be found on page 56 of the High & MacArthur Mixed-Use Project Initial Study document published on May 18, 2011; as a result this topic will not be addressed in the EIR.
- **Economics**. Economic impacts including cost benefit analysis, impacts to jobs, and/or impacts to existing retail/commercial uses in the area as a result of the proposed project are not required to be analyzed in an EIR and therefore are not addressed directly in either an Initial Study or EIR document; indirect impacts could be considered under sections that address blight such as an aesthetics, land use, and/or population section.
- **Stormwater.** Analysis related to stormwater was completed as part of the Initial Study for the project and can be found on pages 26-33, 37-43, and 63-65 of the High & MacArthur Mixed-Use Project Initial Study document published on May 18, 2011; as a result this topic will not be addressed in the EIR.
- **Parking.** Analysis of adequacy of parking is not required under CEQA and the proposed project must meet the City requirements related to number of on-site parking spaces required. However, this EIR provides an analysis of parking as a non-CEQA impact. The analysis evaluates if the project's estimated parking demand would be met by the project's proposed parking supply and compares the proposed parking supply with both the estimated demand and the City of Oakland Municipal Code Requirements.

2. Significant and Significant Unavoidable Impacts

Under CEQA, a significant impact on the environment is defined as "…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."[1]

As discussed in Chapter IV, Setting, Impacts, Standard Conditions of Approval, and Mitigation Measures, and shown in Table II-1 below, the project would result in several potentially significant impacts. However, all of the impacts identified could be mitigated to a less-than-significant level with implementation of the identified Standard Conditions of Approval (SCOA) and/or recommended mitigation measures (MM).

[1] 14 California Code Regs. 15382; Public Resources Code 21068.

No impacts that could not be mitigated to a less-than-significant level would result from implementation of the proposed project.

The potentially significant impacts that could be mitigated to a less-than-significant level with the implementation of City of Oakland Standard Conditions of Approval or recommended mitigation measures, are identified for the following topics in either the Initial Study or this EIR:

Evaluated in Initial Study
- Cultural Resources
- Geology, Soils and Seismicity
- Hydrology and Water Quality
- Utilities and Service Systems

Evaluated in this EIR
- Aesthetics Resources
- Air Quality and Greenhouse Gases
- Hazards and Hazardous Materials
- Transportation and Circulation
- Noise and Vibration

Impacts are anticipated to be less than significant for all other environmental topics.

Cumulative impacts are discussed in each of the topic sections included in Chapter VI, Setting, Impact, and Mitigation Measures. The proposed project would not significantly contribute to or be affected by any significant cumulative impacts.

3. Alternatives to the Proposed Project

Chapter V includes analysis of three alternatives to the proposed project to meet the CEQA requirements for analysis of a reasonable range of project alternatives. The three project alternatives analyzed in Chapter V include:

- The **No Project/No Build Alternative**, which assumes the continuation of existing conditions within the project site;
- The **Reduced Development/Mitigated Alternative**, which assumes development of 29 less residential units and one less building floor for a total of 86 units within a 4-story building; and
- The **Commercial Alternative**, which assumes development of a 20,000 square foot commercial retail building.

C. SUMMARY TABLE

Information in Table II-1, Summary of Findings and Standard Conditions of Approval, has been organized to correspond with environmental issues discussed in Chapter IV of this EIR and the Initial Study (Appendix A). The table is arranged in three columns: (1) findings; (2) necessary Standard Conditions of Approval (SCA); and (3) level of significance after implementation of the SCA, which for each topic area is less than significant (LTS). The Initial Study and EIR found that all potentially significant impacts would be reduced to a less-than-significant level with implementation of SCAs. The Initial Study and EIR did not identify any significant impacts; therefore, no mitigation measures are warranted. All SCAs necessary to ensure that no significant impacts would occur are included in Table II-1 for reference. For a complete description of environmental findings and required SCAs, please refer to the specific discussions in Chapter IV and the Initial Study (Appendix A).

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
AESTHETIC RESOURCES		
The Initial Study found that all aesthetic resource impacts would be reduced to LTS level with implementation of SCAs.	IS SCA AES-1*: Prior to issuance of an electrical or building permit.* 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. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.	LTS
	EIR SCA AES-1: Required Landscape Plan for New Construction and Certain Additions to Residential Facilities. *Prior to issuance of a building permit*. Submittal and approval of a landscape plan for the entire site is required for the establishment of a new residential unit (excluding secondary units of five hundred (500) square feet or less), and for additions to Residential Facilities of over five hundred (500) square feet. The landscape plan and the plant materials installed pursuant to the approved plan shall conform with all provisions of Chapter 17.124 of the Oakland Planning Code, including the following: a) Landscape plan shall include a detailed planting schedule showing the proposed location, sizes, quantities, and specific common botanical names of plant species. b) Landscape plans for projects involving grading, rear walls on down slope lots requiring conformity with the screening requirements in Section 17.124.040, or vegetation management prescriptions in the S-11 zone, shall show proposed landscape treatments for all graded areas, rear wall treatments, and vegetation management prescriptions.	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	c) Landscape plan shall incorporate pest-resistant and drought-tolerant landscaping practices. Within the portions of Oakland northeast of the line formed by State Highway 13 and continued southerly by Interstate 580, south of its intersection with State Highway 13, all plant materials on submitted landscape plans shall be fire-resistant The City Planning and Zoning Division shall maintain lists of plant materials and landscaping practices considered pest-resistant, fire-resistant, and drought-tolerant. d) All landscape plans shall show proposed methods of irrigation. The methods shall ensure adequate irrigation of all plant materials for at least one growing season.	
	EIR SCA AES-2: Landscape Requirements for Street Frontages. *Prior to issuance of a final inspection of the building permit.* a) All areas between a primary Residential Facility and abutting street lines shall be fully landscaped, plus any unpaved areas of abutting rights-of-way of improved streets or alleys, provided, however, on streets without sidewalks, an unplanted strip of land five (5) feet in width shall be provided within the right-of-way along the edge of the pavement or face of curb, whichever is applicable. Existing plant materials may be incorporated into the proposed landscaping if approved by the Director of City Planning. b) In addition to the general landscaping requirements set forth in Chapter 17.124, a minimum of one (1) fifteen-gallon tree, or substantially equivalent landscaping consistent with city policy and as approved by the Director of City Planning, shall be provided for every twenty-five (25) feet of street frontage. On streets with sidewalks where the distance from the face of the curb to the outer edge of the	

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	sidewalk is at least six and one-half (6 ½) feet, the trees to be provided shall include street trees to the satisfaction of the Director of Parks and Recreation.	
	EIR SCA AES-3: Assurance of Landscaping Completion. *Prior to issuance of a final inspection of the building permit.* The trees, shrubs and landscape materials required by the conditions of approval attached to this project shall be planted before the certificate of occupancy will be issued; or a bond, cash, deposit, or letter of credit, acceptable to the City, shall be provided for the planting of the required landscaping. The amount of such or a bond, cash, deposit, or letter of credit shall equal the greater of two thousand five hundred dollars ($2,500.00) or the estimated cost of the required landscaping, based on a licensed contractor's bid.	
	EIR SCA AES-4: Landscape Requirements for Street Frontages. *Prior to issuance of a final inspection of the building permit.* On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6½) feet and does not interfere with access requirements, a minimum of one (1) twenty-four (24) inch box tree shall be provided for every twenty-five (25) feet of street frontage, unless a smaller size is recommended by the City arborist. The trees to be provided shall include species acceptable to the Tree Services Division.	
	EIR SCA AES-5: Landscape Maintenance. *Ongoing.* All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. All required irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	EIR SCA AES-6: Improvements in the Public Right-of-Way (General). *Approved prior to the issuance of a P-job or building permit.* a) The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements- located within the public ROW. b) Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition. c) The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit. d) The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.	
	EIR SCA AES-7: Underground Utilities. *Prior to issuance of a building permit.* The project applicant shall submit plans for review and approval by the Building Services Division and the Public Works Agency, and other rele-	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	vant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other wiring, conduits, and similar facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.	
	EIR SCA AES-8: Tree Protection During Construction. *Prior to issuance of a demolition, grading, or building permit.* 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	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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	

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	of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.	
AIR QUALITY AND GREENHOUSE GAS EMISSIONS		
All air quality and greenhouse gas emissions impacts would be reduced to LTS level with implementation of SCAs.	EIR SCA AIR-1. Construction-Related Air Pollution Controls (Dust and Equipment Emissions): *Ongoing throughout demolition, grading, and/or construction.* During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the Bay Area Air Quality Management District (BAAQMD): **BASIC: (Applies to all construction sites)** a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). 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 2 feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d) 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.	LTS

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	e) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). f) Limit vehicle speeds on unpaved roads to 15 miles per hour. g) Idling times shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points. h) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. i) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage. **ENHANCED: All "Basic" controls listed above plus the following controls if the project involves:** i) 114 or more single-family dwelling units; ii) 240 or more multi-family units; iii) Nonresidential uses that exceed the applicable screening size listed in the Bay Area Air Quality Management District's CEQA	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	Guidelines; iv) Demolition permit; v) Simultaneous occurrence of more than two construction phases (e.g., grading and building construction occurring simultaneously); vi) Extensive site preparation (i.e., the construction site is four acres or more in size); or vii) Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export). j) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. k) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph. l) Install sandbags or other erosion control measures to prevent silt runoff to public roadways. m) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). n) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. Their duties shall include holidays and weekend periods when work may not be in progress. o) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind-blown dust. Wind breaks must have a maximum 50 per-	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	cent air porosity. p) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. q) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. r) All trucks and equipment, including tires, shall be washed off prior to leaving the site. s) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. t) Minimize the idling time of diesel-powered construction equipment to two minutes. u) The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available. v) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e.,	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	BAAQMD Regulation 8, Rule 3: Architectural Coatings). w) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM. x) Off-road heavy diesel engines shall meet the CARB's most recent certification standard.	
	EIR SCA AIR-2 – Exposure of Air Pollution (Toxic Air Contaminants: Particulate Matter). *Prior to issuance of a demolition, grading, or building permit.* A. Indoor Air Quality: In accordance with the recommendations of the California Air Resources Board (CARB) and the Bay Area Air Quality Management District, appropriate measures shall be incorporated into the project design in order to reduce the potential health risk due to exposure to diesel particulate matter to achieve an acceptable interior air quality level for sensitive receptors. The appropriate measures shall include **one** of the following methods: 1) The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the CARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to air polluters prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Planning and Zoning Division for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required.	

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	2) The applicant shall implement all of the following features that have been found to reduce the air quality risk to sensitive receptors and shall be included in the project construction plans. These features shall be submitted to the Planning and Zoning Division and the Building Services Division for review and approval prior to the issuance of a demolition, grading, or building permit and shall be maintained on an ongoing basis during operation of the project. a) Redesign the site layout to locate sensitive receptors as far as possible from any freeways, major roadways, or other sources of air pollution (e.g., loading docks, parking lots). b) Do not locate sensitive receptors near distribution center's entry and exit points. c) Incorporate tiered plantings of trees (redwood, deodar cedar, live oak, and/or oleander) to the maximum extent feasible between the sources of pollution and the sensitive receptors. d) Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets or exceeds an efficiency standard of MERV 13. The HV system shall include the following features: Installation of a high efficiency filter and/or carbon filter to filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters shall be used. e) Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on	

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	exposure modeling from the pollutant sources. f) Install indoor air quality monitoring units in buildings. g) Project applicant shall maintain, repair and/or replace HV system on an ongoing and as needed basis or shall prepare an operation and maintenance manual for the HV system and the filter. The manual shall include the operating instructions and the maintenance and replacement schedule. This manual shall be included in the CC&Rs for residential projects and distributed to the building maintenance staff. In addition, the applicant shall prepare a separate homeowners manual. The manual shall contain the operating instructions and the maintenance and replacement schedule for the HV system and the filters. B. Outdoor Air Quality: To the maximum extent practicable, individual and common exterior open space, including playgrounds, patios, and decks, shall either be shielded from the source of air pollution by buildings or otherwise buffered to further reduce air pollution for project occupants.	

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	EIR SCA AIR-3 – Exposure to Air Pollution (Toxic Air Contaminants: Gaseous Emissions). *Prior to issuance of a demolition, grading, or building permit.* A. Indoor Air Quality: In accordance with the recommendations of the California Air Resources Board (CARB) and the Bay Area Air Quality Management District, appropriate measures shall be incorporated into the project design in order to reduce the potential risk due to exposure to toxic air contaminants to achieve an acceptable interior air quality level for sensitive receptors. The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the CARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to air polluters prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Planning and Zoning Division for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required. B. Exterior Air Quality: To the maximum extent practicable, individual and common exterior open space, including playgrounds, patios, and decks, shall either be shielded from the source of air pollution by buildings or otherwise buffered to further reduce air pollution for project occupants.	

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AGRICULTURE AND FOREST RESOURCES		
No significant impacts related to agriculture and forest resources were identified in the Initial Study or EIR.		
BIOLOGICAL RESOURCES		
No significant impacts related to biological resources were identified in the Initial Study or EIR.		
CULTURAL RESOURCES		
The Initial Study found that all cultural resource impacts would be reduced to LTS level with implementation of SCAs.	IS SCA CULT-1: *Ongoing throughout demolition, grading and/or construction.* 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 historical 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 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	LTS

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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 shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center.	
	IS SCA CULT-2: Ongoing throughout demolition, grading and/or construction. 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. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction	LTS

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	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.	
	IS SCA CULT-3: *Ongoing throughout demolition, grading and/or construction.* 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.	LTS
GEOLOGY AND SOILS		
The Initial Study found that all geology and soils impacts would be reduced to LTS level with implementation of SCAs.	IS SCA GEO-1: *Required as part of the submittal of a tentative tract or tentative parcel map.* A preliminary soils report for the project site shall be required as part of this project and submitted for review and approval by the Building Ser-	LTS

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Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	vices Division. The applicant shall implement the approved report. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically the minimum contents of the report should include: A. Logs of borings and/or profiles of test pits and trenches: a) The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures. b) The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures. c) All boring logs shall be included in the soils report. B. Test pits and trenches: a) Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures. b) Soils profiles of all test pits and trenches shall be included in the soils report. C. A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled. D. Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, sheer strength, active and	

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	passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other structures to be erected subsequent to or concurrent with work done under the grading permit. E. Soils Report. A written report shall be submitted which shall include, but is not limited to, the following: a) Site description; b) Local and site geology; c) Review of previous field and laboratory investigations for the site; d) Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building; e) Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist; f) Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required; g) Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report; h) All other items which a Soils Engineer deems necessary; i) The signature and registration number of the Civil Engineer preparing the report.	

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	F. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.	
	IS SCA GEO-2: *Prior to any grading activities.* The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.660 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee.	LTS
	IS SCA GEO-3: Required as part of the submittal of a tentative tract or tentative parcel map.	LTS

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	a) A site-specific, design level, Landslide or Liquefaction geotechnical investigation for each construction site within the project area shall be required as part of this project and submitted for review and approval by the Building Services Division. Specifically: i. Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be 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 identified faults. ii. The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks). iii. The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland. iv. The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge. v. Recommendations that are applicable to foundation design, earth-	

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	work, and site preparation that were prepared prior to or during the project's design phase, shall be incorporated in the project. vi. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to commencement of the project. vii. A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces. b) Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.	
HAZARDS AND HAZARDOUS MATERIALS		
The Initial Study found that all hazards and hazardous materials impacts would be reduced to LTS level with implementation of SCAs.	IS SCA HAZ-1: *Prior to issuance of a business license.* The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Prevention Bureau, Hazardous Materials Unit. 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.	LTS

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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.	
	EIR SCA HAZ-1: Hazards Best Management Practices. *Prior to commencement of demolition, grading, or construction.* The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. 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. f) If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction ac-	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	tivities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.	
	EIR SCA HAZ-2: Site Review by the Fire Services Division. *Prior to the issuance of demolition, grading or building permit.* The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau, Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.	
	EIR SCA HAZ-3: Phase I and/or Phase II Reports. *Prior to issuance of a demolition, grading, or building permit.* 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.	
	EIR SCA HAZ-4: Environmental Site Assessment Reports Remediation. *Prior to issuance of a demolition, grading, or building permit.*	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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.	
	EIR SCA HAZ-5: Best Management Practices for Soil and Groundwater Hazards. *Ongoing throughout demolition, grading, and construction activities.* The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards. a) Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland. b) Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources. c) Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.	
	EIR SCA HAZ-6: Radon or Vapor Intrusion from Soil or Groundwater Sources. *Ongoing.* The project applicant shall submit documentation to determine whether	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with 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. Applicant shall implement the approved recommendations.	
HYDROLOGY AND WATER QUALITY		
The Initial Study found that all hydrology and water quality impacts would be reduced to LTS level with implementation of SCAs.	IS SCA HWQ-1: Prior to issuance of a demolition, grading, or construction-related permit. The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following: a) On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the street, gutters, storm drains. b) In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric	LTS

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected. c) Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. d) Install filter materials acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary ensure effectiveness and prevent street flooding. e) Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains. f) Direct and locate tool and equipment cleaning so that wash water does not discharge into the street, gutters, or storm drains. g) Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on-site.	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	h) Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. i) Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work. j) Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the street, gutter, storm drains. k) All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB). l) All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.	
	IS SCA HWQ-2: Prior to the issuance of building permit (or other construction related permit).	LTS

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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. a) The post-construction stormwater pollution management plan shall include and identify the following: i. All proposed impervious surface on the site; ii. Anticipated directional flows of on-site stormwater runoff; and iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and iv. Source control measures to limit the potential for stormwater pollution; and v. Stormwater treatment measures to remove pollutants from stormwater runoff. b) The following additional information shall be submitted with the post-construction stormwater pollution management plan. i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and. ii. Pollutant removal information demonstrating that any proposed	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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 onsite 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.	
	IS SCA HWQ-3: Prior to final zoning inspection. For projects incorporating stormwater treatment measures, 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. a) 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	LTS

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	b) 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.	
LAND USE AND PLANNING		
No significant impacts related to land use and planning were identified in the Initial Study or EIR.		
MINERAL RESOURCES		
No significant impacts related to mineral resources were identified in the Initial Study or EIR.		
NOISE		
All noise impacts would be reduced to LTS level with implementation of SCAs.	EIR SCA NOISE-1: Days/Hours of Construction Operation. *Ongoing throughout demolition, grading, and/or construction.* The project applicant shall require construction contractors to limit standard construction activities as follows: a) Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that 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 a.m. to 7:00 p.m. 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	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	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.	
	EIR SCA NOISE-2: Noise Control. *Ongoing throughout demolition, grading, and/or construction.* To reduce noise impacts due to construction, the project applicant shall	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	require construction contractors to implement a site-specific noise reduction program, subject to city review and approval, which includes the following measures: 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) Except as provided herein, 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 if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. 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 use other measures as determined by the City to provide equivalent noise reduction. d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	EIR SCA NOISE-3: Noise Complaint Procedures. *Ongoing throughout demolition, grading, and/or construction.* 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. These measures shall include: 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; 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.	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	EIR SCA NOISE-4: Interior Noise. *Prior to issuance of a building permit.* 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.	
	EIR SCA NOISE-5: Pile Driving and Other Extreme Noise Generators. *Ongoing throughout demolition, grading, and/or construction.* 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. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. 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 implementing the following measures. These attenua-	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	tion measures shall include as many of the following control strategies as applicable to the site and construction activity: 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 implement such measure if such measures are feasible and would noticeably reduce noise impacts; and e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.	
	EIR SCA NOISE-6: Operation Noise-General. *Ongoing.* 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.	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
POPULATION AND HOUSING		
No significant impacts related to population and housing were identified in the Initial Study or EIR.		
PUBLIC SERVICES		
No significant impacts related to public services were identified in the Initial Study or EIR.		
RECREATION		
No significant impacts related to recreation were identified in the Initial Study or EIR.		
TRANSPORTATION AND CIRCULATION		
All transportation and circulation impacts would be reduced to LTS level with implementation of SCAs.	EIR SCA TRANS-1: Parking and Transportation Demand Management. *Prior to issuance of a final inspection of the building permit.* The applicant shall submit for review and approval by the Planning and Zoning Division a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The applicant shall implement the approved TDM plan. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel shall be considered. Strategies to consider include the following: a) Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement. b) Construction of bike lanes per the Bicycle Master Plan; Priority Bikeway Projects. c) Signage and striping onsite to encourage bike safety. d) Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient crossing at arterials. e) Installation of amenities such as lighting, street trees, trash recepta-	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	cles per the Pedestrian Master Plan and any applicable streetscape plan. f) Direct transit sales or subsidized transit passes. g) Guaranteed ride home program. h) Pre-tax commuter benefits (checks). i) On-site car-sharing program (such as City Car Share, Zip Car, etc.). j) On-site carpooling program. k) Distribution of information concerning alternative transportation options. l) Parking spaces sold/leased separately. m) Parking management strategies; including attendant/valet parking and shared parking spaces.	
	SCA TRANS-2: Construction Traffic and Parking. *Prior to the issuance of a demolition, grading or building permit.* The project applicant and construction contractor shall meet with 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 also be submitted to AC Transit for review and comment. The plan shall include at least the following items and requirements: a) A set of comprehensive traffic control measures, including scheduling	

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	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. Traffic analysis will be necessary to determine the hours of operation for construction traffic control as part of the construction management plan. b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. c) Location of construction staging areas for materials, equipment, and vehicles at an approved location. d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services. e) Provision for accommodation of pedestrian flow. f) Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces. g) Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the applicant's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be re-	

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	paired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and/or photo documentation, at the applicant's expense, before the issuance of a Certificate of Occupancy. h) Any heavy equipment brought to the construction site shall be transported by truck, where feasible. i) No materials or equipment shall be stored on the traveled roadway at any time. j) Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion. k) All equipment shall be equipped with mufflers. l) Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.	
UTILITIES AND SERVICE SYSTEMS		
The Initial Study found that all utilities and service systems impacts would be reduced to LTS level with implementation of SCAs.	IS SCA UTIL-1: 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 Sewer and Stormwater Division. Improvements to the existing sanitary sewer collec-	LTS

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	tion 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.	
	IS SCA UTIL-2: 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. Ongoing. 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 ac-	LTS

TABLE II-1 SUMMARY OF FINDINGS, STANDARD CONDITIONS OF APPROVAL (SCA) INCLUDING FINDINGS FROM INITIAL STUDY AND EIR

Finding	Standard Condition of Approval and/or Mitigation Measure	Level of Significance With Implementation of SCA
	cordance with current City requirements. The proposed program shall be implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be resubmitted 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.	

III. PROJECT DESCRIPTION

This chapter describes the proposed High & MacArthur Mixed-Use Project, which is evaluated in this EIR. The chapter begins with a description of the project site and surrounding land uses, planning context, project background, objectives and a discussion of relevant project background, followed by a detailed description of the proposed project and a discussion of the intended uses of the EIR and required project approvals and entitlements.

A. PROJECT SITE

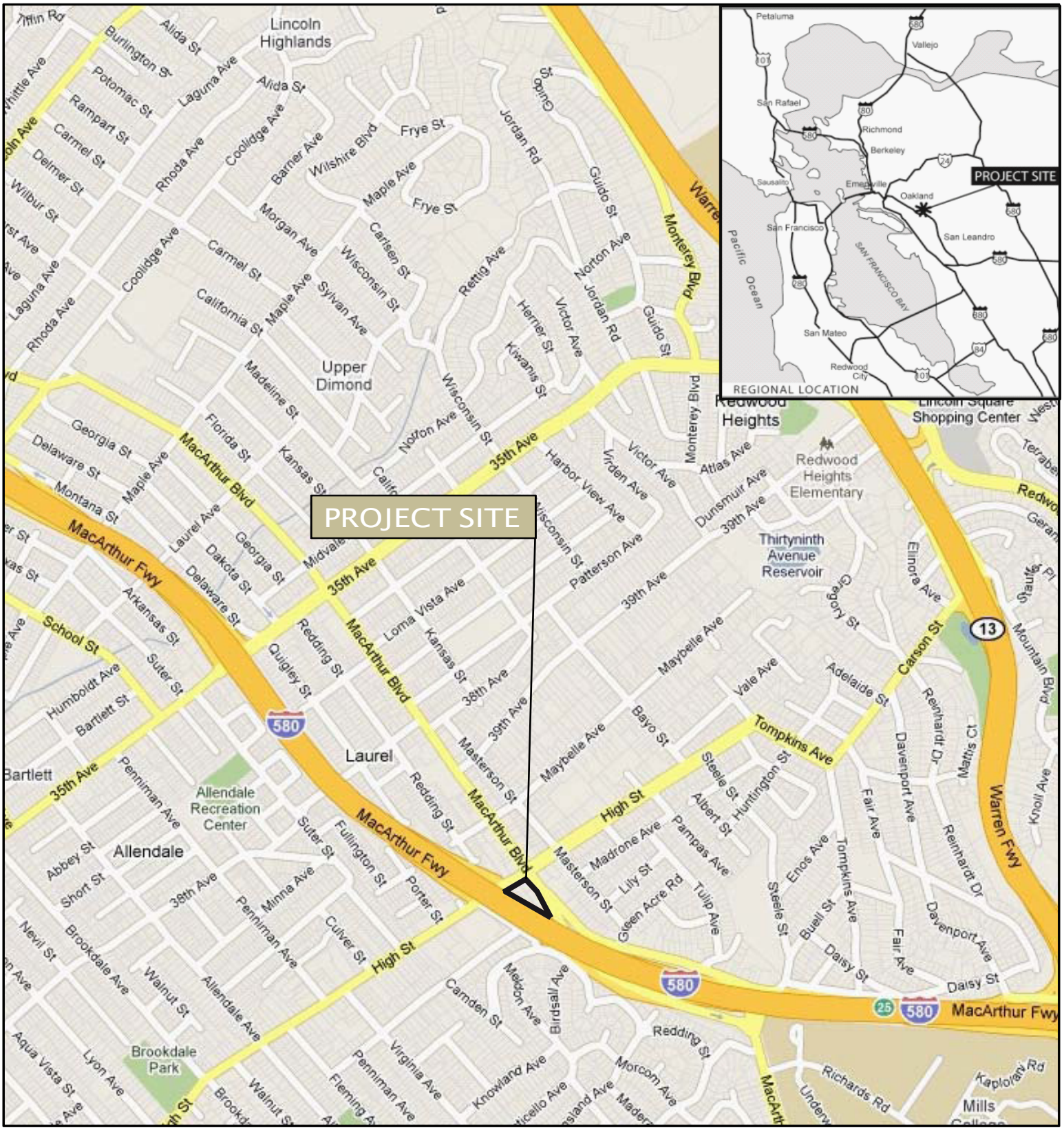
1. Location and Site Characteristics

Generally flat, the project site comprises approximately 0.93 acres located in Central Oakland. Oakland is located in Alameda County and is bordered by San Francisco Bay to the west and northwest, the cities of Emeryville and Berkeley to the north, the City of San Leandro to the south, and the Berkeley Hills foothills and open space to the east. Figure III-1, Project Location and Regional Vicinity Map, shows the project site's regional and local context.

The triangular shaped project site is located at 4311 and 4317 MacArthur Boulevard at the southwest corner of the High Street and MacArthur Boulevard intersection as shown in Figure III-1, Project Location and Regional Vicinity Map. The triangular shaped site is comprised of three parcels and is bound by MacArthur Boulevard to the north and east, MacArthur Freeway to the south, and High Street to the west. The project site is located at the southern edge of the Laurel Business District, where the Laurel Business District transitions to the Mills College area and is vacant except for a billboard, which would be removed as part of this project.

2. Surrounding Land Uses

Currently the surrounding neighborhood is a mix of commercial and residential uses, as well as vacant lots. On the northwest corner of the High Street and MacArthur Boulevard intersection there is a vacant lot and an unused structure; a mobile home park is situated in between these properties and the MacArthur Freeway, which borders the property along its western edge. A gas station/auto repair shop is located on the northeast corner of the intersection and a small commercial building on the southeast corner currently houses a sandwich shop, a pizza place, dry cleaners, and tax preparation business. Across MacArthur Boulevard east of the site, there is a two-story



Project Site

0 500 1000
feet

FIGURE III-1
High & MacArthur Mixed-Use Senior Housing Project EIR
Project Location and Regional Vicinity Map

SOURCE: CALIFORNIA STATE AUTOMOBILE ASSOCIATION 2000 & GOOGLE EARTH 2010

C:\UPP\P\10-005 OAK\Products\EIR\Admin 1\Figures\Figure I-1 (06/14/10, revised 04/22/2011)

post office building and a small used car lot. Moving away from the site itself, the commercial structures in the immediate vicinity include one- to two-story utilitarian commercial buildings, two- to three-story office buildings and small-scale retail/storage buildings. To the north along MacArthur Boulevard is the Laurel Business District; there are a variety of commercial activities including a Lucky grocery store, an ACE hardware, and a variety of local restaurants and retail shops. To the south of the project site along MacArthur Boulevard there is a mix of small motels, some commercial uses, and residences.

Past the commercial uses that line the High Street and MacArthur Boulevard corridors on the east side of the MacArthur Freeway, the uses are primarily residential and educational in nature with commercial uses interspersed sporadically throughout the residential area. The St. Lawrence O'Toole/St. Cyril Roman Catholic Church and school are located just to the east of the project site on High Street. To the immediate west of the project site is the MacArthur Freeway followed by a mix of both commercial and residential land uses. A Walgreens drugstore and a small commercial center containing a dry cleaner, check cashing business, donut shop, taqueria, a beauty salon, laundromat, and a tax preparation business are located on the sites immediately west of the MacArthur Freeway, and a Boys and Girls Club is located adjacent to the Walgreens property. Beyond the commercial area along High Street to the west of the MacArthur Freeway the land use is primarily residential with commercial uses interspersed throughout the residential area as is seen on the eastern side of the freeway.

3. Existing General Plan and Zoning

The General Plan designation for the project site and surrounding parcels is Neighborhood Center Mixed Use (NCC). The General Plan states that the intent of the Neighborhood Center Mixed Use designation is to “identify, create, maintain, and enhance mixed use neighborhood commercial centers.” “Vertical integration of uses, including residential units above the street-level commercial space is encouraged.”

The project is located immediately south of the Laurel Business District of Central Oakland in a section of MacArthur Boulevard identified by the General Plan Land Use Element as a "grow and change" area. "Grow and change" areas are portions of the City of Oakland that the general plan identified as places able to grow beyond the existing density. This site has good access to transportation, connections to city services, and connections to the region, which meets the criteria for this designation.

The two parcels adjacent to High Street are zoned CN-2 (Neighborhood Commercial Zone-2). The southwest parcel that is adjacent to MacArthur Boulevard is zoned CN-3 (Neighborhood Commercial Zone-3). The areas located further to the north along MacArthur Boulevard are also zoned CN-2. The areas located south along MacArthur Boulevard are zoned CN-3. The areas located across MacArthur Freeway are zoned CN-3, and RD-1 (Detached Unit Residential Zone).

The City updated its Zoning Regulations on April 14, 2011. The updated Zoning Regulations do not apply to project applications that have been deemed complete prior to that date, which includes the proposed project. Therefore, the previous zoning regulations will be applicable to the project instead of the current zoning regulations.

Using the previous zoning regulations, the site is split into two different zoning districts and includes a combining zone. The northwestern portion of the site is located in the C-31 Special Retail Commercial Zone (the C-31 zoning changed to CN-2 Neighborhood Commercial Zone 2). The southeastern portion of the site is located in the C-30 District Thoroughfare Commercial Zone with an S-4 Design Review Combining Zone (the C-30 zoning changed to CN-3 Neighborhood Commercial Zone 3).

The proposed residential and commercial uses are allowed under the C-30 and C-31 zoning classifications for the site. The maximum residential density for these zoning classifications is set forth in the R-70 High Density Residential Zone regulations, which allow one unit per 450-square-foot of lot area. That equates to a maximum allowable density for the site of 90 units. However, Section 17.106.060 of the Planning Code allows the density for senior housing to exceed the zoning density by up to 75% with a Conditional Use Permit (CUP). Therefore, the proposed 115-unit project would exceed the maximum allowable zoning density by 28 percent, which is well within the possible range allowed with a CUP.

The C-30 zone is intended to “create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in convenient locations, and is typically appropriate along major thoroughfares.” The C-31 zone is intended to “create, preserve, and enhance areas with a wide range of retail establishments serving both short and long term needs in attractive settings oriented to pedestrian comparison shopping, and is typically appropriate along important shopping streets having a special or particularly pleasant character.” The C-31 zoning is generally located on the front of the property (the zoning code defines the High Street frontage as the front and the MacArthur frontage as a “corner side”) while the C-30 and an S-

4 zoned portion is to the rear of the triangular shaped project site. Both zoning districts allow permanent residential uses and commercial uses.
The S-4 Design Review Combining Zone is an additional zoning designation overlaid on the C-30 portion of the site. The S-4 is intended to create, preserve, and enhance the visual harmony and attractiveness of areas which require special treatment and the consideration of relationships between facilities. In the S-4 zone no building, other than a new Secondary Unit shall be constructed unless plans for such proposal have been approved pursuant to the design review procedure. As this is a residential project, it is already subject to design review.

There are two commercial spaces planned as part of the proposed project (see Figure III-3 in Section D, Proposed Project, below). The small kiosk space fronting High Street is anticipated to be occupied as newsstand or flower stand. The commercial space located at the corner of High Street and MacArthur Boulevard is anticipated to be used for any number of general retail uses and/or consumer services allowed as permitted in the C-30 and C-31 zone. No food service uses are proposed. The four floors above the ground level would contain senior housing consisting of 115 one-bedroom apartments. Both zoning districts allow permanent residential uses.

B. PROJECT BACKGROUND

The project was originally approved by the City Planning Commission in February 2008. This approval included Major/Minor Conditional Use Permits and Variances; Design Review and a Categorical Exemption (Class 32) from CEQA to construct a new mixed-use senior housing development containing 115 apartments and approximately 3,446 square feet of ground floor commercial space. The neighborhood group Commercial Retail Attraction for Laurel (CRAL) appealed the project approval to the City Council on multiple grounds. The project appeal was scheduled for consideration by the City Council on May 20, 2008. At this meeting, the appeal was continued to an unspecified date. The applicant subsequently withdrew their applications, which invalidated all land use approvals rendering the appeal moot.

In 2010, the applicant submitted a new application for Design Review, Conditional Use Permit, Variance, and Environmental Review of the proposed project. Upon review of the new application, the City determined that a Focused EIR was the appropriate CEQA document for this project.

The project site is identified as a planned development site in the Housing Element and the Housing Element EIR.[1] Development of the project site, at a level consistent with the proposed project, was considered in the Housing Element EIR. The Housing Element EIR included analysis of the following environmental topics: Transportation and Circulation, Air Quality, Noise and Climate Change. The Housing Element EIR focused out all other environmental topic areas via the Initial Study including hazards and hazardous materials and aesthetics. Pursuant to the CEQA Statutes §21093, §21094, and §21083.3 and CEQA Guidelines §15152, §15385, and §15183 this EIR tiers off the analysis included in the Housing Element EIR. It is noted that although the Housing Element EIR provided CEQA clearance for new residential projects that are consistent with the Housing Element and EIR, such as the proposed project.

The potential significant environmental effects of the proposed project related to air quality and climate change/greenhouse gas emissions are "adequately addressed" in the Housing Element EIR in that:

A. They have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

B. They have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of Standard Conditions of Approval or mitigation measures, or by other means in connection with the approval of the project.

As a result, further analysis under CEQA is not necessary or legally required. Nonetheless, given that this project was initiated prior to completion and certification of the Housing Element EIR, a project-specific analysis has been completed. The findings of this analysis are consistent with the findings of the Housing Element EIR. The project-specific analysis confirms that the proposed project would not result in any new significant or substantially more severe environmental effects, require new or different Standard Conditions of Approval and/or mitigation measures or project alternatives that would be feasible or more effective in mitigating an impact related to air quality or greenhouse gas emissions. This EIR also evaluated impacts peculiar to the project and/or project site as well as off-site and cumulative impacts.

[1] City of Oakland, 2010. *2007-2014 Housing Element,* Table C-8, page 324. December.

Please refer to the environmental topic sections in Chapter VI for a discussion of how this EIR relies on the Housing Element EIR.

C. PROJECT OBJECTIVES

The High & MacArthur Mixed-Use Project seeks to redevelop and revitalize an underutilized site in Central Oakland by creating a residential and commercial project that provides pedestrian-oriented, mixed-use development (housing and commercial). Specifically, the project seeks to:

- Facilitate housing construction consistent with development anticipated in the City's Housing Element that meets the demand of a growing population.
- Provide a substantial number of market-rate and affordable housing units meeting a critical need for the City of Oakland as well as for the region to serve a growing population of seniors.
- Develop urban infill housing with convenient transportation access that would serve to reduce traffic-related pollution.
- Orient residential development near existing amenities.
- Facilitate City of Oakland goal for the Laurel Business District to "grow and change" in terms of density, activity, or use.
- Enhance City and local community redevelopment efforts and strengthen existing neighborhood-serving businesses.
- Provide a transition from the Laurel Business District to the Mills College area.
- Construct financially feasible developments with sufficient flexibility to adjust to market needs and to provide reasonable returns on investment so as to secure construction and long-term financing.
- Provide community residents with additional opportunities to purchase goods and services.
- Provide employment opportunities from development and operation of commercial businesses.
- Ensure that hazardous materials contamination on the site is remediated.

D. PROPOSED PROJECT

1. Building and Uses

The proposed project would involve site preparation, grading, and removal of the existing billboard to allow construction of a new mixed-use market-rate and affordable senior housing project. The key elements of the project are detailed below. Site plans are shown in Figure III-2, Ground Floor Plan, and Figure III-3, Site Plan, and project elevations are shown in Figure III-4, Elevations.

The proposed buildout consists of a five-story mixed-use structure containing four stories of residential use, ground floor parking, and commercial space. The maximum building height is 60 feet, with the tallest portion along the High Street elevation shown in Figure III-4, Elevations, as the property terrain slopes down from the corner of High Street and MacArthur Boulevard to the freeway at the western edge of the property.

a. Commercial Spaces

The 3,446 square feet of ground floor commercial space would be split into two separate areas with the main commercial area located at the corner of High Street and MacArthur Boulevard. The ground level would also include a loading zone on High Street, adjacent to the freeway and various mechanical/equipment rooms. A stand-alone retail space labeled as "kiosk" on the ground floor plan (see Figure III-2) would front onto High Street; this small kiosk space is anticipated to be occupied as a newsstand or flower stand or similar retail space. The commercial space located at the corner of High Street and MacArthur Boulevard is anticipated to be used for any number of general retail uses and/or consumer services allowed as permitted in the C-30 and C-31 zone. No food service uses are proposed at this time. A residential lobby fronting High Street is proposed between the two commercial spaces (see ground level plan).

b. Housing

The senior housing component of the project consists of 115 market-rate and affordable, one-bedroom, apartments on the four stories above the ground level with approximately 28-29 units per floor. The units are all proposed to be one-bedroom, would average approximately 540 square feet in size, and would be designed around an interior central courtyard intended to be used by residents as group open space as shown in Figure III-3, Site Plan. A residential lobby is proposed to front High Street as seen in Figure III-2, Ground Floor Plan.

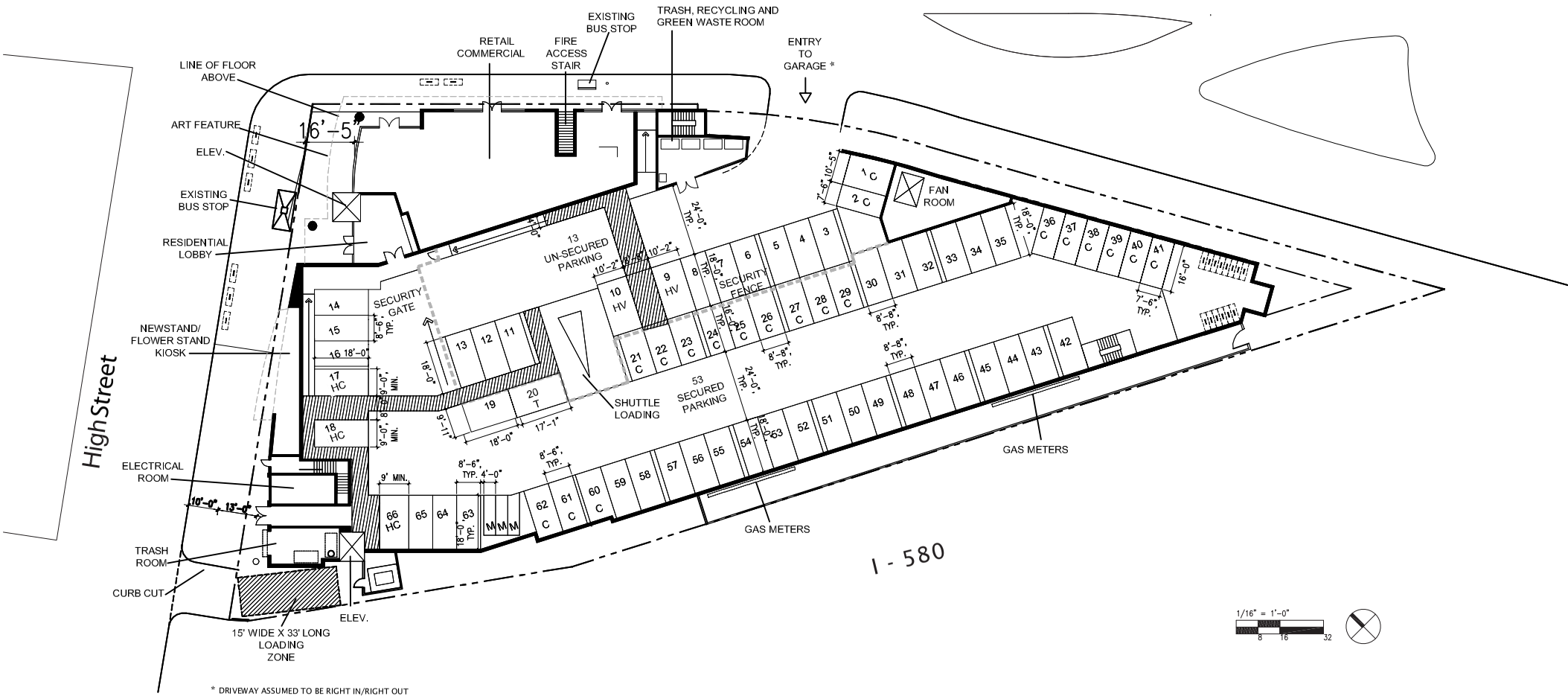


FIGURE III-2
High & MacArthur Mixed- Use Senior Housing Project EIR
Ground Floor Plan

SOURCE: KTGY GROUP, INC.
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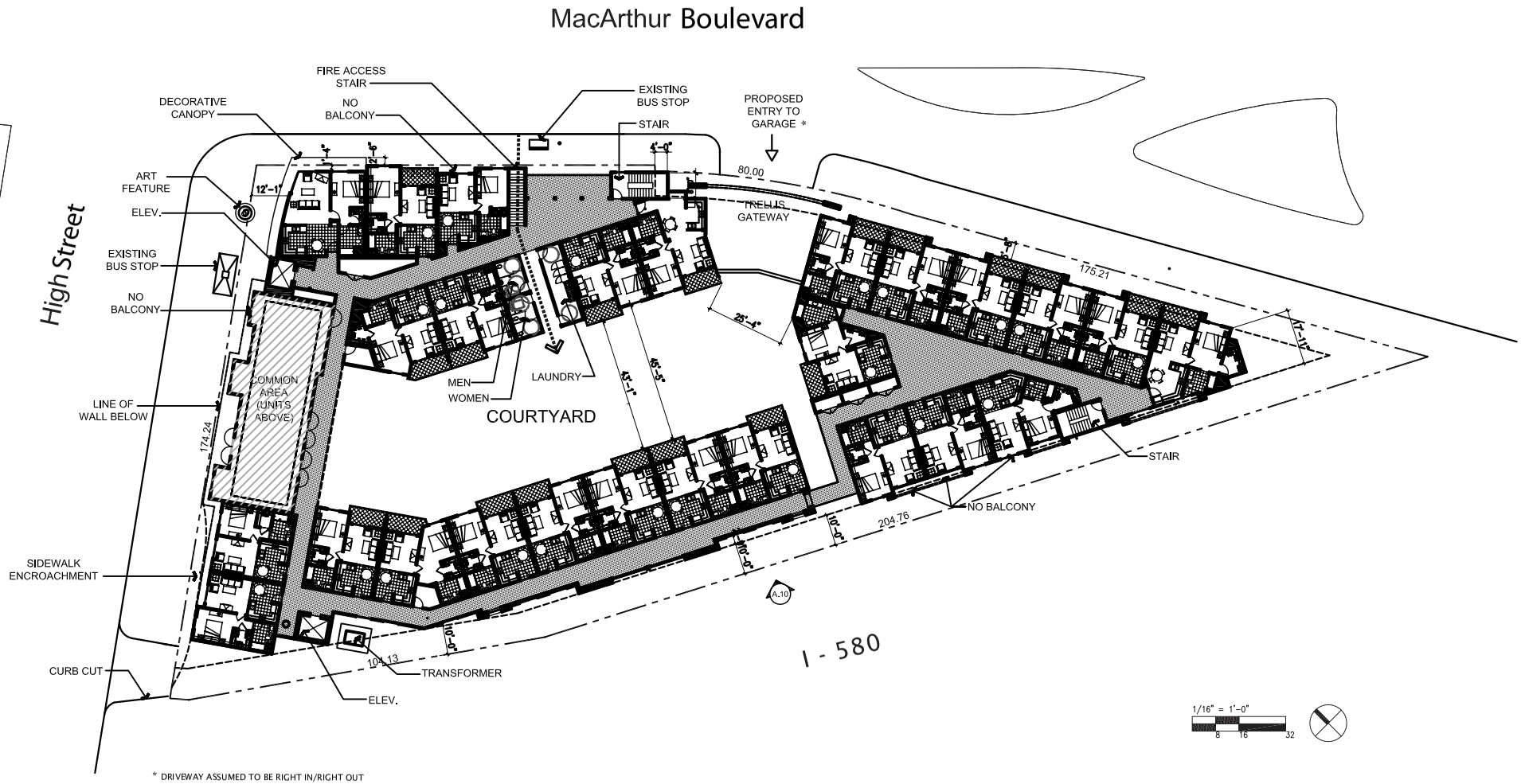

FIGURE III-3
High & MacArthur Mixed- Use Senior Housing Project EIR
Site Plan

SOURCE: KTGY GROUP, INC.
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FIGURE III-4
High & MacArthur Mixed-Use Senior Housing Project EIR
Elevations

SOURCE: KTGY GROUP, INC.

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c. Site Improvements and Parking

The site layout provides access for various modes including vehicles, pedestrians, and bicycle access. Vehicles and bicycles would access the parking areas via a driveway located on MacArthur Boulevard that is restricted to right in and right out only; pedestrians would access the building via the residential lobby entrance located on High Street or through the security gate in the parking level of the building. As seen in Figure III-2, Ground Floor Plan, the parking for the project is proposed for the ground floor level behind the commercial spaces with access off MacArthur Boulevard. The 65-space parking area would be divided by a security gate into two separate areas: one accessible only to residents and the other accessible to residents, visitors, and patrons of the commercial area. The ground level would also include an on-site loading zone on High Street adjacent to the freeway, various mechanical/equipment rooms, and a public art feature located at the corner of High Street and MacArthur Boulevard.

2. Landscaping and Streetscape

Landscaping would be incorporated along all roadways bordering the site, and would also include street trees installed along the project boundaries of High Street and MacArthur Boulevard. Streetscape elements, illustrated in Figure III-4, Elevations, including items that would connect the site with the Laurel Business District, to include flowering pots, custom tree grates and bike racks, benches, and trash receptacles will be installed along the project streets and open space. In addition, Laurel leaves will be inscribed on the High Street side of the building (at the corner with MacArthur Boulevard) to tie the building into the Laurel Business District, and a public art feature will be located at this same corner to provide visual interest to both visitors and passers-by.

3. Construction Schedule

A construction start date has not yet been determined; once work has commenced the applicant anticipates completion of the work within 12-months. The intent is to have the building, landscape, and streetscape completed within this 12-month time frame.

4. Site Grading

Development of the proposed project would include site grading to level the surface of the project site. The grading would result in a balanced cut/fill of approximately 15,000 cubic yards. No soil would be imported or exported from the project site.

5. Utilities

Water supply and treatment, and wastewater treatment are provided to Oakland by EBMUD. The project site is currently served by sanitary sewer and water lines. Minor connections to these existing lines would be required to serve new structures on the project site. The project applicant, the project design, and occupants of the project site would be required to comply with the waste reduction and recycling regulations outlined in Oakland Municipal Code Chapter 15.34.

E. DISCRETIONARY ACTIONS

It is anticipated that this EIR will provide environmental review for all discretionary approvals and actions necessary for the project. A number of permits and approvals would be required before the development of the project could proceed. As Lead Agency for the proposed project, the City of Oakland would be responsible for the majority of approvals required for development. Other agencies also have some authority related to the project and its approvals. A list of required permits and approvals that may be required by the City and other agencies includes, without limitation, those provided in Table III-1.

1. City of Oakland

Key discretionary actions required by the City of Oakland are outlined below.

TABLE III-1 PERMITS AND APPROVALS

Lead Agency	Key Discretionary Permits/Approvals
City of Oakland	• Conditional Use Permit to allow increase in density for senior housing • Conditional Use Permit to allow ground level parking and loading and to reduce required parking spaces • Variance for building height • Design Review • Parcel Map Waiver

Source: City of Oakland Planning, Building, and Neighborhood Preservation, 2012.

The following agencies may require miscellaneous permits and/or approvals: 1) East Bay Municipal Utility District (EBMUD); 2) California Regional Water Quality Control Board (RWQCB); 3) Alameda County Department of Environmental Health; 4) Regional Water Quality Control Board; and 5) Department of Toxics and Substances Control (DTSC).

IV. SETTING, IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES

This chapter contains an analysis of the environmental topics determined to be potentially significant in the Initial Study (see Appendix A) relevant to the proposed High and MacArthur Mixed-Use Project (project). Sections IV.A through IV.E of this chapter describe the existing setting, the potential impacts that could result from implementation and buildout of the project, Standard Conditions of Approval, and mitigation measures designed to reduce significant impacts of the project to a less-than-significant level.

The following provides an overview of the scope of the analysis included in this chapter, organization of the sections, and the methods for determining what impacts are significant.

ENVIRONMENTAL TOPICS

The following environmental topics are analyzed in this chapter:

A. Aesthetic Resources
B. Air Quality and Greenhouse Gases
C. Hazards and Hazardous Materials
D. Transportation and Circulation
E. Noise and Vibration

A brief discussion of the environmental topics addressed in the Initial Study (Appendix A) for the project is included in Chapter VI, CEQA Required Assessment Conclusions, under the sub-heading VI.A, Effects Found Not to Be Significant. These topics include: agricultural and timber resources, biological resources, cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, and utilities and service systems.

FORMAT OF TOPIC SECTIONS

Each environmental topic section generally includes two main subsections: (1) Setting; and (2) Impacts (construction, project and cumulative), Standard Conditions of Approval, and Mitigation Measures. Identified significant impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Significant impacts and

mitigation measures are numbered consecutively within each topic and begin with a shorthand abbreviation for the impact section (e.g., AIR for Air Quality). The following abbreviations are used for individual topics:

AES: Aesthetic Resources
AIR: Air Quality
GHG: Greenhouse Gases
HAZ: Hazards and Hazardous Materials
NOISE: Noise and Vibration
TRANS: Transportation and Circulation

The following notations are provided after each identified significant impact and mitigation measure:

SU = Significant and Unavoidable
S = Significant
LTS = Less than Significant

These notations indicate the significance of the impact with and without mitigation.

DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment.[1] Each impact evaluation in this chapter is prefaced by criteria of significance, which are the thresholds for determining whether an impact is significant.

This criteria of significance utilized in this EIR are from the City of Oakland's Thresholds/Criteria of Significance Guidelines. To help clarify and standardize analysis and decision making in the environmental review process in the City of Oakland, the City has established the Thresholds/Criteria of Significance Guidelines (which have been in general use since at least 2002). The Thresholds are offered as guidance in preparing environmental review documents. The City requires use of its thresholds unless the location of the project or other unique factors warrants the use of different thresholds. 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 form the basis of the City's Initial Study and Environmental Review Checklist.

[1] Public Resources Code Section 21068.

The Thresholds are intended to be used in conjunction with the City's Uniformly Applied Development Standards and Conditions of Approval (see discussion below), which are incorporated into projects as Conditions of Approval regardless of the determination regarding a project's environmental impacts.

CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project are legally not required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the project in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City Standard Conditions of Approval and/or project-specific non-CEQA recommendations to address these issues.

CUMULATIVE ANALYSIS CONTEXT

CEQA defines cumulative as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts. "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects."

The methodology used for assessing cumulative impacts typically varies depending on the specific topic being analyzed. For example, the geographic and temporal (time-related) parameters related to a cumulative analysis of air quality impacts are not necessarily the same as those for a cumulative analysis of noise or aesthetic impacts. This is because the geographic area that relates to air quality is much larger and regional in character than the geographic area that could be impacted by potential noise or aesthetic impacts from a proposed project and other cumulative projects/growth. The noise and aesthetic cumulative impacts are more localized than air quality and transportation impacts, which are more regional in nature. Accordingly, the parameters of the respective cumulative analyses in this document are

determined by the degree to which impacts from this project are likely to occur in combination with other development projects.

UNIFORMLY APPLIED DEVELOPMENT STANDARDS AND CONDITIONS OF APPROVAL

The City's Uniformly Applied Development Standards and Conditions of Approval (referred to in the EIR as Standard Conditions of Approval or Conditions of Approval) are incorporated into projects as conditions of approval regardless of a project's environmental determination. As applicable, the Standard Conditions of Approval 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. For the High & MacArthur Mixed-Use Housing project, all of the relevant standard conditions have been incorporated as part of the project.

In reviewing project applications, the City determines which Standard Conditions of Approval 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 Standard Conditions of Approval apply to a specific project; for example, Standard Conditions of Approval related to creek protection permits will only be applied to projects on creekside properties.

Because these Standard Conditions of Approval are mandatory City requirements, the impact analysis assumes that these will be imposed and implemented by the project. If a Standard Condition of Approval would reduce a potentially significant impact to less than significant, the impact will be determined to be less than significant and no mitigation is imposed.

The Standard Conditions of Approval 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 Standard Conditions of Approval, the

City will determine whether there are feasible mitigation measures to reduce the impact to less-than-significant levels.

A. AESTHETIC RESOURCES

This section evaluates the effects of the High & MacArthur Mixed-Use Project on the visual and aesthetic resources in the vicinity of the project site. The analysis also considers the proposed project's consistency with applicable visual resources-related policies. The section is based on: (1) field surveys of the project site that were conducted in the summer and fall of 2010; (2) a review of the data provided by the City and the project applicant, including aerial photographs, site plans, and planning documents; and (3) visual simulations that show "before" and "after" representations of the proposed project. Visual simulations, based on plans provided by the project applicant were prepared for four representative public vantage points in the vicinity of the project site. The visual simulations are intended to convey a realistic impression of the project in terms of building location, scale and massing based on the details included in the project plans. The discussion and analysis in this section tiers off of the Housing Element EIR, which consistent with the proposed project, assumed development of the project site with 115 multi-family residential units for seniors.

The Housing Element EIR assessed impacts associated with aesthetics as part of the Initial Study completed for the Housing Element project. The Initial Study identified that implementation of the Housing Element update would result in less-than-significant impacts to scenic resources, visual character, and nighttime views with implementation of Standard Conditions of Approval and previously identified Mitigation Measures. More specifically, the Housing Element Initial Study found that new development on housing opportunity sites in the flatlands could result in massing and loss of vegetation that may adversely affect scenic views; panoramic views from the City's designated scenic routes could be impacted by construction of housing due to increased massing on currently vacant or underutilized properties; views could potentially be obstructed or altered from the scenic routes; and new development could create new sources of light and glare adversely impacting nighttime views. However, the Housing Element Initial Study determined that compliance with existing General Plan policies, Municipal Code standards, and Standard Conditions of Approval would ensure that potential impacts to aesthetic resources would be less than significant. The Initial Study also concluded that impacts to aesthetic resources would be less than significant because each specific development project would be reviewed individually. No significant aesthetic impacts were identified and no mitigation measures were required.

The proposed project, which includes 115 units, consistent with the development proposal considered in the Housing Element EIR for the project

site, would not result in any significant impacts beyond those identified in the Housing Element EIR as discussed above. The potential significant environmental effects of the proposed project related to aesthetics are "adequately addressed" in the Housing Element EIR in that:

A. They have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

B. They have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of Standard Conditions of Approval or mitigation measures, or by other means in connection with the approval of the project.

A project-specific analysis has never-the-less been completed. The findings of this analysis are consistent with the findings of the Housing Element EIR. The project specific analysis confirms that the proposed project would not result in any new significant or substantially more severe environmental effects, require new or different Standard Conditions of Approval and/or mitigation measures or project alternatives that would be feasible or more effective in mitigating an impact related to aesthetics. This EIR also evaluates impacts peculiar to the proposed project and/or project site, as well as off-site and cumulative impacts.

The analysis of the proposed project is focused on the aspects of aesthetics as defined in the significance criteria, including impacts to the visual character, scenic vistas, and scenic resources within state scenic highways. Impacts related to light and glare, shadows, conformance with policies, and wind generation were screened out of the EIR analysis as part of the Initial Study and were not determined to constitute significant impacts. The proposed project would be required to comply with City of Oakland Municipal Code, the Land Use and Transportation Element EIR, the goals and policies of the City of Oakland's General Plan, and Standard Conditions of Approval in order to reduce the impact of the project to visual character, vistas, and/or scenic resources.

1. Setting

This section describes the visual character of the project site and surrounding area including the Laurel Business District and surrounding residential neighborhood.

a. Visual Character, Overview of the Project Site and Vicinity

The project site is located in the Laurel Business District of Oakland approximately 5 miles east of downtown on the southwest corner of High Street and MacArthur Boulevard. The physical environment surrounding the project site is characterized by a mix of commercial and residential development that varies in terms of age and architectural style. The photos in Figures IV.A-1a through 1d show views of the surrounding area. The site can be generally described as an underutilized lot, occupied by a billboard, covered by uncultivated plant materials (weeds) and surrounded by a chain-link fence woven with privacy inserts. Figure IV.A-2a through 2d shows views of the project site.

A 40- to 60-foot zone of cultivated and uncultivated vegetation slopes up from the site to MacArthur Freeway. This segment of MacArthur Freeway is also referred to as the MacArthur Freeway and the remainder of this discussion refers to the segment as such. The sloped area separates the project site from the MacArthur Freeway right of way along the southwest edge of the property. MacArthur Freeway is designated a State Scenic Highway by Caltrans based on its "lavish landscaping", "route that roughly traces the base of the Oakland hills", unique "siting through a primarily residential corridor", and "satisfying views."[1] These views are intermittently interrupted by foliage and/or development as motorists pass along the roadway.

The streets surrounding the project site are landscaped and vegetation includes street trees and terracotta planters placed throughout the Laurel business district; there is no landscaping or planters immediately adjacent to the project site. The pattern of the landscaping varies and is not consistent along the building frontages. An archway signifying entrance to the Laurel Business District is located on the north side of the High and MacArthur intersection arched over MacArthur Boulevard. Street lights are placed at regular intervals along both High Street and MacArthur Boulevard, illuminating the street during the evening hours. Distant views of the Oakland Hills are available intermittently from roads and walkways in the area dependent on intervening foliage and development. Figure IV.A-1a through 1d shows views of the surrounding area.

Existing structures/uses in the area are varied and include a mix of one- and two- story commercial structures along the major thoroughfares and one- to two-story residential, educational, and religious uses in the areas beyond the

[1] City of Oakland, 1974. *Scenic Highways Element of the Oakland Comprehensive Plan*. September.

Figure IV.A-1a. Small commercial building located on southeast corner of the High Street and MacArthur Boulevard intersection.

Figure IV.A-1b. Gas station/auto repair shop located on the northeast corner of the High Street and MacArthur Boulevard intersection.

Figure IV.A-1c. Vacant lot/unused structure located on northwest corner of the High Street and MacArthur Boulevard intersection.

Figure IV.A-1d. Mobile home park located in between the vacant lot/unused structure and MacArthur Freeway, northwest of the project site across High Street.

Figure IV.A-2a. View of project site from northeast corner of the High Street and MacArthur Boulevard intersection. (Picture taken before the existing slatted fence was installed.)

Figure IV.A-2b. View of project site from southeast corner of the High Street and MacArthur Boulevard intersection.

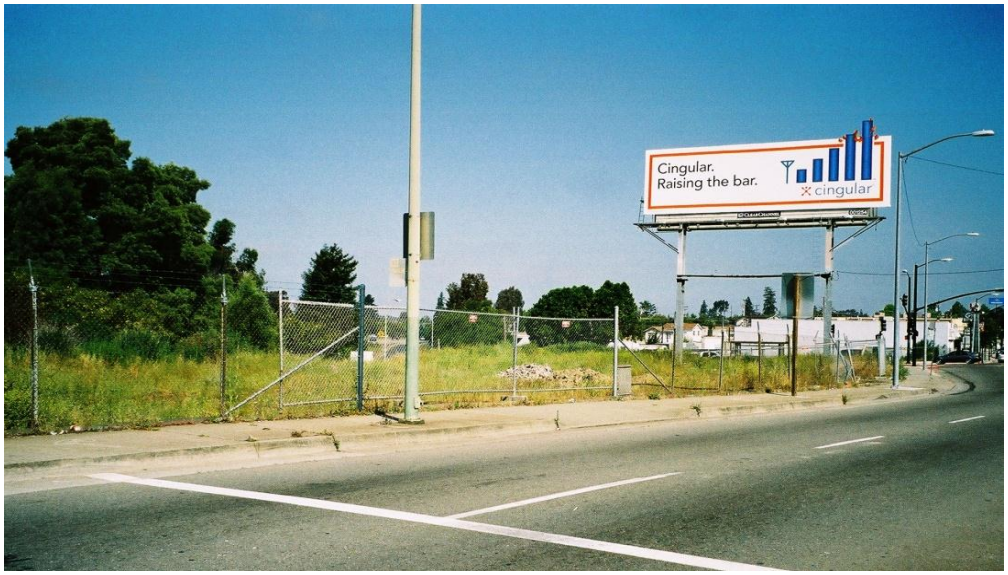

Figure IV.A-2c. View of project site from a location across MacArthur Boulevard, southeast of the project site. (Picture taken before the existing slatted fence was installed.)

Figure IV.A-2d. View of project site from southeastern edge of parcel. (Picture taken before the existing slatted fence was installed.)

commercial development. A steeple on the St. Lawrence O'Toole Catholic Church can be seen by those traveling in the vicinity. To the north along MacArthur Boulevard in the Laurel Business District, there are a variety of commercial uses including a Lucky grocery store, an ACE hardware, and a variety of local restaurants and retail shops. To the south of the project site along MacArthur Boulevard, there is a mix of small one- and two-story motels, one- and two-story commercial structures and residences. Immediately east of the project site across MacArthur Boulevard, is a commercial center that includes a one-story building occupied by a sandwich shop, pizza place, dry cleaners, and tax preparation business; a two-story Post Office; and a used vehicle sales lot with associated surface parking lots. Development across High Street to the north includes a mobile home park, a vacant parcel, and one-story commercial buildings. The parcel located on the northeast corner of High Street and MacArthur Boulevard is vacant. One- to two-story single-family, duplex, and multi-family residential structures predominate the surrounding local streets beyond the predominantly commercial development areas. One- and two-story educational facilities are interspersed throughout the residential areas.

b. Scenic Vistas and Views of and Through the Project Site

A view is defined as the ability to see something from a particular place, buildings and natural elements such as trees or geologic features such as hills or rock outcroppings guide lines of sight and control view directions available to pedestrians and motorists. A view corridor is defined as a line of sight from a specific viewpoint toward an object of significance. A public view corridor is a line of site in an area in which views are available from publicly accessible places, such as city streets, parks, and other public spaces. In the City of Oakland's General Plan Open Space, Conservation, and Recreation Element (OSCAR), Policy OS-10.1 states that projects are to *"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"*. For purposes of this analysis, this policy has been used to define vistas.

The project site is visible from multiple public viewpoints, including by travelers on the MacArthur Freeway (a state- and locally-designated scenic highway) and adjacent streets. In order to understand the impact of the project on views in the vicinity of the project, photographs of existing views have been closely compared with photographic simulations of the proposed project. Existing views in the project area are discussed in the analysis of project impacts below.

The existing visual character of the site is that of an underutilized lot surrounded by a chain-link fence woven with privacy inserts. The fence surrounding the site shows the remnants of past attempts by graffiti artists to tag the location. Located at the intersection of High Street and MacArthur Boulevard in the City of Oakland, the vacant site contrasts with the more active residential and commercial areas surrounding the project site along High Street and MacArthur Boulevard. A billboard rises from the northwest side of the project site, closest to MacArthur Boulevard. The site is currently lacking in character and is not aesthetically appealing.

Two transit stops are visible, one on MacArthur Boulevard and a second on High Street. The transit stop located on High Street has a semi-enclosed canopy area with bench seating for 3-4 people. In addition, this shelter includes a display case with bus information for AC riders and a trash receptacle. The stop located on MacArthur Boulevard is an uncovered bench seat with room for 3-4 people. A waste receptacle sits on the walkway next to each transit stop. Streetlights are placed at regular intervals along both High Street and MacArthur Boulevard; additionally, a utility box is positioned near the intersection of the two streets.

There is no vegetation around the sidewalks surrounding the project site; however, there is vegetation that includes mature trees ranging from 10 feet to 40 feet high on the slope that extends between the project site up to the MacArthur Freeway roadbed on the southwestern edge of the site. Much of the view of the MacArthur Freeway from areas around the project site is screened by this vegetation. Views of downtown, Lake Merritt, or the shoreline are not visible from either the project site or the surrounding areas. There are intermittent views of the hills located to the east of the project site.

Figure IV.A-4a shows the view of a motorist traveling westbound on the MacArthur Freeway. Vegetation is visible along the edge of the highway, as is the billboard located on the northwestern edge of the project site. Motorists have a view up MacArthur Boulevard through the commercial area of the Laurel Business District. The one-story commercial buildings in the vicinity of the project site are briefly visible to a motorist passing through the area.

Reduced Figure IV.A-4a shown above for reference.

Reduced Figure IV.A-5a shown above for reference.

Figure IV.A-5a shows a view of a motorist traveling eastbound on the MacArthur Freeway. The foreground of the view is dominated by views of the highway roadbed, followed by that of vegetation that lines the adjacent areas. In the left center of the view, passing motorists can see the one-story commercial building located near the northwest corner of the intersection of High Street and MacArthur Boulevard. In addition, the signage for the business located on the northeast corner of that intersection is visible. In between the one-story commercial structure and the highway, passing motorists have a view of the mobile home park that is situated in between the commercial structures facing MacArthur Boulevard and the MacArthur Freeway. To the right of the one-story commercial building, a view of the upper portion of the commercial center located across MacArthur Boulevard from the project site is visible, as is the upper story of the Laurel post office located adjacent to the shopping area. In front of the post office motorists can see the billboard that rises from the northwest edge of the project site. Finally, passing motorists have an intermittent view of the Oakland Hills, dependent on intervening foliage and development.

Reduced Figure IV.A-6a shown above for reference.

Figure IV.A-6a shows the view looking northwest up MacArthur Boulevard towards the Laurel Business District. In the center of the view is the project site. The billboard that rises from the northwest edge of the site is clearly visible as is the fence that surrounds the site. In the near distance, a one-story commercial building can be seen. The trailer park located between the one-story commercial structure and the MacArthur Freeway is also visible. In the foreground, on the right several two-story residential structures and adjacent street parking can been seen.

Reduced Figure IV.A-7a shown above for reference.

Figure IV.A-7a shows the view looking southeast down MacArthur Boulevard towards the project site from the Laurel Business District. In the left center of the view, the archway located at the intersection of High Street and MacArthur Boulevard is visible dependent on intervening foliage and position on the street. The billboard that rises from the northwestern edge of the site is also visible in the left center of the view. To the right of center, the vacant lot located across High Street from the project site can be seen. In the distance, through the archway, a walkway that crosses the MacArthur Freeway is visible, as are directional signs placed on/over the highway. In the foreground, one-story commercial buildings, street vegetation, sidewalks, and parking areas considered part of the commercial area of the Laurel Business District are visible.

c. Scenic Highway

The City of Oakland Scenic Highways Element[2] and the California Department of Transportation designate the MacArthur Freeway as a scenic highway for the portion between San Leandro City limits and SR-24. The proposed project is located along the MacArthur Freeway and would be visible to motorists that traverse this scenic highway.

d. Regulatory Setting

The main documents that are applicable to aesthetics and visual quality within and around the project site are the Land Use and Transportation Element of the General Plan, the Open Space, Conservation, and Recreation Element the Oakland Planning Code; and applicable Standard Conditions of Approval.

(1) Land Use and Transportation Element

The Land Use and Transportation Element (LUTE) is intended to guide development within the City of Oakland. Applicable aesthetic resources policies are listed below.

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[2] City of Oakland, 1974. *Scenic Highways, An Element of the Oakland Comprehensive Plan.* September.

- Policy I/C3.1: Enhancing Business Districts. Retain and enhance clusters of similar types of commercial enterprises as the nucleus of distinctive business districts, such as the existing new and used automobile sales and related uses through urban design and business retention efforts.
- Policy I/C3.4: Strengthening Vitality. The vitality of existing neighborhood mixed use and community areas should be strengthened and preserved.
- Policy I/C4.3: Reducing Billboards. Billboards should be reduced or eliminated in commercial and residential areas in Oakland neighborhoods through mechanisms that minimize or do not require the expenditure of city funds.
- Policy T6.2: Improving Streetscapes. The city should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian-oriented and include lighting, directional signs, trees, benches, and other support facilities.
- Policy N1.5: Designing Commercial Development. Commercial development should be designed in a manner that is sensitive to surrounding residential uses.
- Policy N3.8: Required High-Quality Design. 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.
- Policy N3.9: Orienting Residential 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 neighborhood 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.
- Policy N3.10: Guiding the Development of Parking. Off-street parking for residential buildings should be adequate in amount and conveniently located and laid out, but its visual prominence should be minimized.
- Policy N7.1 Ensuring Compatible Development. New residential development in Detached Unit and Mixed Housing Type area should be compatible with the density, scale, design and existing or desired character of the surrounding development.
- Policy N7.2: Defining Compatibility. 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.
- Policy N7.4: Designing Local Streets. Local streets should be designed to create an intimate neighborhood environment and not support high speed nor large volumes of traffic. Providing on-site parking for cars and bicycles, planting and maintaining street trees, and landscaping, minimizing the width of driveway curb

cuts, maintaining streets, bike routes, and sidewalks, and orienting residential buildings toward the street all contribute to the desired environment.

- Policy N9.7 Creating Compatible but Diverse Development. Diversity in Oakland's built environment should be as valued as the diversity in population. Regulations and permit processes should be geared towards creating compatible and attractive development, rather than "cookie cutter" development.
- Policy N12.7: Billboard Reduction. Billboards should be reduced or eliminated in commercial and residential areas in Oakland neighborhoods through mechanisms that minimize or do not require the expenditure of city funds.

(2) Open Space, Conservation, and Recreation Element

This element promotes the preservation and good design of open space, and the protection of natural resources to improve aesthetic quality in Oakland. The following objectives and policies are relevant to visual resources concerns associated with the proposed project:

- Policy OS-9.3: Gateway Improvements. Enhance neighborhood and city identity by maintaining or creating gateways. Maintain view corridors and enhance the sense of arrival at the major entrances to the city, including freeways, BART lines, and the airport entry. Use public art, landscaping, and signage to create stronger City and neighborhood gateways.
- Policy OS-10.1: View Protection. 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-10.2: Minimizing Adverse Visual Impacts. Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.
- Policy OS-10.3: Underutilized Visual Resources. Enhance Oakland's underutilized visual resources, including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares.
- Policy 0S-11.3: Public Art Requirements. Continue to require public art as a part of new public buildings or facilities. Consider expanding the requirement or creating voluntary incentives to private buildings with substantial public spaces.
- Policy OS-12.1: Street Tree Selection. 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.

(3) Scenic Highways Element

The Scenic Highways Element is intended to preserve and enhance the distinctive roadways that traverse the City and the visual corridors that surround them. Applicable aesthetic resources policies are listed below.

- General Policy 3: Urban Development should be related sensitively to the natural setting.
- General Policy 4: High Standards for preserving and enhancing natural landforms and vegetation should be established and maintained to regulate all activities related to earthwork and the removal of trees, shrubs, or ground cover.
- Specific Policy related to MacArthur Freeway 1: The signs within the scenic corridor that are visible from the freeway should be for identification purposes only; no advertising should be permitted.
- Specific Policy related to MacArthur Freeway 2: Visual intrusions within the scenic corridor should be removed, converted, buffered or screened from the motorists' view.
- Specific Policy related to MacArthur Freeway 3: Panoramic vistas and interesting views now available to the motorist should not be obliterated by new structures.
- Specific Policy related to MacArthur Freeway 4: New construction within the scenic corridor should demonstrate architectural merit and a harmonious relationship with the surrounding landscape.

(4) Oakland Planning Code

The designs of new projects in Oakland are subject to the following performance criteria that are utilized as part of the City's design review process.

A. For Residential Facilities.

1. That the proposed design will create a building or set of buildings that are well related to the surrounding area in their setting, scale, bulk, height, materials, and textures;
2. That the proposed design will protect, preserve, or enhance desirable neighborhood characteristics;
3. That the proposed design will be sensitive to the topography and landscape.
4. That, if situated on a hill, the design and massing of the proposed building relates to the grade of the hill;
5. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

B. For Nonresidential Facilities and Signs.

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk,

height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.136.060;

2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area; and
3. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

(5) City of Oakland Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to aesthetic resources are listed below for reference. The Standard Conditions of Approval would be adopted as requirements of the proposed project if the project is approved by the City to help ensure no significant impacts for aesthetic resources occur; as a result, they are not listed as mitigation measures. Additionally, the Standard Conditions of Approval related to light shielding and glare prevention listed as part of the Initial Study would be adopted if the proposed project is approved by the City.

SCA AES-1: Required Landscape Plan for New Construction and Certain Additions to Residential Facilities. *Prior to issuance of a building permit.*
Submittal and approval of a landscape plan for the entire site is required for the establishment of a new residential unit (excluding secondary units of five hundred (500) square feet or less), and for additions to Residential Facilities of over five hundred (500) square feet. The landscape plan and the plant materials installed pursuant to the approved plan shall conform with all provisions of Chapter 17.124 of the Oakland Planning Code, including the following:

a) Landscape plan shall include a detailed planting schedule showing the proposed location, sizes, quantities, and specific common botanical names of plant species.

b) Landscape plans for projects involving grading, rear walls on down slope lots requiring conformity with the screening requirements in Section 17.124.040, or vegetation management prescriptions in the S-11 zone, shall show proposed landscape treatments for all graded areas, rear wall treatments, and vegetation management prescriptions.

c) Landscape plan shall incorporate pest-resistant and drought-tolerant landscaping practices. Within the portions of Oakland northeast of the line formed by State Highway 13 and continued southerly by Interstate 580, south of its intersection with State Highway 13, all plant materials on submitted landscape plans shall be fire-resistant The City Planning and Zoning Division shall maintain lists of plant

materials and landscaping practices considered pest-resistant, fire-resistant, and drought-tolerant.

d) All landscape plans shall show proposed methods of irrigation. The methods shall ensure adequate irrigation of all plant materials for at least one growing season.

SCA AES-2: Landscape Requirements for Street Frontages. *Prior to issuance of a final inspection of the building permit.*

a) All areas between a primary Residential Facility and abutting street lines shall be fully landscaped, plus any unpaved areas of abutting rights-of-way of improved streets or alleys, provided, however, on streets without sidewalks, an unplanted strip of land five (5) feet in width shall be provided within the right-of-way along the edge of the pavement or face of curb, whichever is applicable. Existing plant materials may be incorporated into the proposed landscaping if approved by the Director of City Planning.

b) In addition to the general landscaping requirements set forth in Chapter 17.124, a minimum of one (1) fifteen-gallon tree, or substantially equivalent landscaping consistent with city policy and as approved by the Director of City Planning, shall be provided for every twenty-five (25) feet of street frontage. On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet, the trees to be provided shall include street trees to the satisfaction of the Director of Parks and Recreation.

SCA AES-3: Assurance of Landscaping Completion. *Prior to issuance of a final inspection of the building permit.*
The trees, shrubs and landscape materials required by the conditions of approval attached to this project shall be planted before the certificate of occupancy will be issued; or a bond, cash, deposit, or letter of credit, acceptable to the City, shall be provided for the planting of the required landscaping. The amount of such or a bond, cash, deposit, or letter of credit shall equal the greater of two thousand five hundred dollars ($2,500.00) or the estimated cost of the required landscaping, based on a licensed contractor's bid.

SCA AES-4: Landscape Requirements for Street Frontages. *Prior to issuance of a final inspection of the building permit.*
On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6½) feet and does not interfere with access requirements, a minimum of one (1) twenty-four (24) inch box tree shall be provided for every twenty-five (25) feet of street frontage, unless a smaller size is recommended by the City arborist. The trees to be provided shall include species acceptable to the Tree Services Division.

SCA AES-5: Landscape Maintenance. *Ongoing.*
All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. All required irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.

SCA AES-6: Improvements in the Public Right-of-Way (General). *Approved prior to the issuance of a P-job or building permit.*

a) The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements- located within the public ROW.

b) Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition.

c) The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit.

d) The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.

SCA AES-7: Underground Utilities. *Prior to issuance of a building permit.*
The project applicant shall submit plans for review and approval by the Building Services Division and the Public Works Agency, and other relevant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other wiring, conduits, and similar facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.

SCA AES-8: Tree Protection During Construction. *Prior to issuance of a demolition, grading, or building permit.*
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.

2. Impacts, Standard Conditions of Approval, and Mitigation Measures

This section discusses potential impacts on aesthetic resources that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact is significant.

The City's significance criteria includes a total of 10 thresholds; however, only the first three are included in this analysis because the Initial Study prepared for this project (see Appendix A) concluded that criteria 4-10 would be less than significant and no further analysis is required. [3] The latter part of

[3] Additional criteria (criteria 4 – 10) includes: an analysis of substantial shadows on existing solar collectors; analysis of shadows cast that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, open space, or historic

this section presents the impacts associated with the proposed project and identifies mitigation measures, if appropriate. To guide the assessment of whether the change would reasonably constitute a demonstrable negative effect, the analysis includes computer-generated photo simulations illustrating "before" and "after" views and vistas across the project site.

a. Criteria of Significance

Implementation of the proposed project would have a significant effect on aesthetic resources if it would:

1. Have a substantial adverse effect on a public scenic vista;
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway;
3. Substantially degrade the existing visual character or quality of the site and its surroundings;

b. Less-than-Significant Aesthetic Resources Impacts

The following discussion describes the less-than-significant impacts to aesthetic resources that would result from implementation of the proposed project.

(1) Scenic Vistas (Criterion 1)

Given the urban nature and the relatively flat topography of the project area, scenic vistas that could be impacted by the proposed project are from the MacArthur Freeway where travelers on the MacArthur Freeway would have

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resource as defined by CEQA Guidelines section 15064.5(a); an analysis of any conflicts with policies and regulations of the General Plan or Uniform Building Code regarding the provision of adequate light related to appropriate uses; and an analysis related to the creation of winds that exceed 36 mph for more than one hour during daylight hours. As there are no solar collectors or buildings designed for passive solar heating or equipped with photovoltaic or solar water collectors in the immediate vicinity of the project site, nor are there any public or quasi-public parks, lawns, gardens, open spaces, or areas of historical significance in the immediate project vicinity it was concluded in the Initial Study that there would be Less-than-Significant to No Impact as a result of the proposed project. Additionally, the variances requested by the proposed project do not conflict with policies and regulations of the General Plan or Uniform Building Codes regarding the provision of adequate light related to appropriate uses. 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. Additional details can be found in Appendix A.

views of the distant Oakland Hills intermittently blocked as vehicles approach and pass the proposed project site. The introduction of the proposed project would not significantly alter these views. The proposed five-story building would incrementally decrease the amount of hillside visible by travelers on the MacArthur Freeway, but only for a few seconds, due to the speed at which vehicles generally travel on this roadway. Additionally at no point would hillside views be entirely blocked by the project. As a result, the project would not have a substantial adverse effect on a public scenic vista. Also, see more detailed discussion in (2), Scenic Highway, below.

(2) Scenic Highway (Criterion 2)

The City of Oakland Scenic Highways Element[4] and the California Department of Transportation designate the MacArthur Freeway as a scenic highway between San Leandro City limits and SR-24. The proposed project is located along the MacArthur Freeway and would be visible to motorists that traverse this scenic highway.

A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.[5] A combination of factors makes the MacArthur Freeway especially attractive and notable. The areas in which it passes through are mostly residential and the variety of color in homes along irregularly platted streets creates an appealing pattern for motorists. In contrast to the built environment, the native hillsides are also visible both adjacent to the freeway and in distant views. Although the MacArthur Freeway is recognized as having relatively consistent scenic qualities, the Scenic Highways Element also recognizes that there are obstructions and areas of degradation along the MacArthur Freeway. These areas include the former Leona Quarry (now developed with multi-family housing) and billboards.[6]

The proposed project site is visible to highway motorists traveling east and west bound on the MacArthur Freeway as they approach the High Street off ramp. Views from the MacArthur Freeway near the project site include a mix

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[4] City of Oakland, 1974. *Scenic Highways, An Element of the Oakland Comprehensive Plan.* September.

[5] Department of Transportation website: http://www.dot.ca.gov/hq/LandArch/scenic/faq.htm accessed November 9, 2011.

[6] City of Oakland, 1974. *Scenic Highways, An Element of the Oakland Comprehensive Plan.* September.

of urban development (homes and commercial development) and distant views to the Oakland hills. More specifically, prominent points of view for freeway motorists passing the project site traveling east bound include the white stucco one-story commercial building south of MacArthur Boulevard and west of High Street; the orange one- and two-story commercial development with a tower element at the northeast corner of the MacArthur Boulevard and High Street intersection; the post office; distant views of the hills with scattered residential development; and trees immediately adjacent to the freeway. Prominent views for freeway motorists traveling west include the existing billboard on the project site; one and two-story commercial development along MacArthur Boulevard west of High Street; and trees immediately adjacent to the freeway. No historic buildings are visible as motorists pass the project site along the freeway. Please refer to Figures IV.A-4a and b; and IV.A-5a and b which depict "before" and "simulated" views of the project site from the MacArthur Freeway.

Figure IV.A-4b illustrates the view of a motorist traveling westbound on the MacArthur Freeway. The simulated project is visible in the lower left center of the view. Motorists passing through the area would have partial views of the upper two floors of the project, including siding materials of sand finish plaster and fiber cement lap siding, and windows and balconies of the residential units. Landscaping and vegetation would still be visible along the edge of the highway; however, the billboard located on the northwestern edge of the project site would be removed and no longer visible. Motorists would still have a view up MacArthur Boulevard through the commercial area of the Laurel Business District. The one-story commercial buildings in the vicinity of the project site would no longer be visible to a motorist passing through the area.

Figure IV.A-5b illustrates a view of a motorist traveling eastbound on the MacArthur Freeway. The foreground of the view is dominated by views of the highway roadbed, followed by that of vegetation that lines the adjacent areas and views of the hills. A simulation of the proposed project is located in the lower center of the view. Motorists would be able to see partial views of the upper four floors of the project including sand finish plaster and fiber cement lap siding materials and windows of the residential units; the finishing materials different colors would also be visible. A passing motorist traveling eastbound on the MacArthur Freeway would also have a partial view of the building's varied roofline and residential balconies. In the left center of the view, passing motorists would still see the one-story commercial building located near the northwest corner of the intersection of High Street and MacArthur Boulevard, and the signage for the business located on the northeast corner of that intersection would still be visible. In between the

one-story commercial structure and the highway, passing motorists would still have a view of the mobile home park that is situated in between the commercial structures facing MacArthur Boulevard and the MacArthur Freeway. To the right of the one story commercial building, a view of the upper portion of the mini-mall located across MacArthur Boulevard from the project site would still be visible, however the upper story of the Laurel post office located adjacent to the shopping area would no longer be visible. The billboard that rose from the northwest edge of the project site would be removed as part of the project, and therefore, no longer visible. Finally passing motorists would continue to have an intermittent view of the Oakland Hills, dependent on intervening foliage and existing development.

As shown in Figures IV.A-4 and IV.A-5, the proposed project would change the views for motorists traveling east and west along the MacArthur Freeway.

Figure IV.A-5b shows that views for eastbound freeway motorists would include the upper floors of the west elevation (facing High Street) and the south elevation (facing the MacArthur Freeway). Views of the west elevation of the proposed building include the three upper floors consisting of fiber cement lap siding and sand finish plaster building material and windows to the residential units. The south building elevation consists of fiber cement lap siding and sand finish plaster building material and windows to the residential units. The views of the hills in the distance and the trees along the freeway would remain visible with implementation of the proposed project. The views of the undeveloped project site, existing billboard, post office, and a portion of the hills in the distance would no longer be visible.

Figure IV.A-4b shows that views for westbound freeway motorists would include the south and east facing elevations of the third and fourth floors of the proposed project and proposed landscaping within the project. The third and fourth floors of the proposed project consist of fiber cement lap siding and sand finish plaster siding material, and windows to the residential units. Views of the trees and commercial development along MacArthur Boulevard would remain visible. The views of the existing undeveloped site, billboard, and commercial development west of MacArthur Boulevard would no longer be visible.

Although the project would alter the views from the MacArthur Freeway, a scenic highway, the qualities that contribute to the scenic character (described above to include landscaping, colorful palette of urban development and the hills) would remain with implementation of the project. Furthermore, it is noted that the interference of views for motorists would be

minimized by the freeway speeds and the fact they would be glancing towards the proposed project for a short period of time.

The proposed project would develop a vacant site with new construction, the design of which has been reviewed and commented on at two Design Review Committee meetings held on September 27, 2006 and January 15, 2008. The project was the subject of multiple community meetings held to solicit feedback on its design in 2007 and 2008 as well as several meetings held with individual commissioners during the same period. Changes made to the design included the removal of a story to reduce the height of the structure as well as the number of units; a revised color scheme in order to soften the appearance, the addition of a graffiti resistant coating to the base of the building; two breaks were introduced in the building wall in order to break up the massing on the MacArthur Freeway and on MacArthur Boulevard; rooflines were revised and elevations broken up in order to give the appearance of two buildings; more landscaping and an art element were added; additional definition and texture were added; the size of the courtyard was increased; and Design Conditions of Approval were applied to the project related to the windows, art feature, and stucco siding[7] in order to meet City of Oakland Design Review criteria.[8] The project was approved by the Planning Commission on February 20, 2008.

The existing trees immediately adjacent to the freeway would be maintained; distant views of the hills for motorists traveling east bound would remain visible; and the existing billboard, which is an acknowledged degrading quality on the scenic highway, would be removed. Furthermore, it is noted that the interference of views for motorists would be minimized by the freeway speeds and the fact they would be glancing towards the proposed project for a short period of time. The proposed project would be an incremental change to an already existing urban landscape found along the miles of this freeway that pass through an already urbanized area of freeway. Caltrans recently completed an inventory and analysis to determine if this part of the freeway would qualify for scenic highway designation today and determined after an analysis of existing conditions, that it would not receive the designation.[9] For these reasons, the proposed project would not substantially damage scenic resources such as trees, designated historic

[7] Lynn Warner, Planner, City of Oakland. Personal communication with Urban Planning Partners, December 6, 2011.

[8] Municipal Code, Chapter 17.80.

[9] Thomas Packard, Landscape Associate, Caltrans Office of Landscape Architecture. Personal communication with Urban Planning Partners, June 1, 2012.

buildings, rock outcrops or other resources from the MacArthur Freeway, a scenic highway, and therefore, this impact is less than significant.

(3) Visual Character (Criterion 3)

Implementation of the proposed project would result in the development of mixed uses on the project site. The proposed building is of a scale and form that are similar to buildings in more vibrant urban neighborhoods within Oakland and nearby Emeryville. The proposed project would develop the underutilized parcels and would introduce a permanent residential population, which will help better connect the people with the urban environment and could improve the vibrancy of the Laurel Business District. The additional resident and employee population would increase activity in the area. The proposed project would improve the visual character of the project site by enhancing the existing archway to create an obvious gateway element to the neighborhood.

In addition, removal of the existing billboard would improve the visual character of the site. The proposed project would involve the construction of one five-story building on the project site, including ground-floor commercial spaces and residential units on upper floors consistent with the location's identification as a housing opportunity site in the 2007-2014 Draft Housing Element of the City's General Plan. In addition, proposed streetscape improvements including trees and other landscape elements, would enhance visual quality in and around the project site, which currently contains few "soft" landscape elements. The project also includes a new public art installation on the southwest corner of the intersection of High Street and MacArthur Boulevard.

Figure IV.A-3 shows the location of each simulation view point. Figures IV.A-4a & b, IV.A-5a & b, IV.A-6a & b, and IV.A-7a & b present "before" and "simulated" views of the project site from positions on the east- and west-bound MacArthur Freeway, as well as from MacArthur Boulevard looking northwest and southeast towards the project site. As shown in the simulations, the buildings would appear prominently in the foreground of all the street frontages. In relationship to surrounding development, the height of the new development would be larger in scale when compared to existing development. However, the urban design fabric surrounding the site supports this scale of development including approximately 53-foot street widths and the presence of a highway immediately adjacent to the project site. As shown in the simulations, the proposed project would not significantly alter these views and in fact would screen views of the highway

Figure IVa-3
High & MacArthur Mixed-Use Senior Housing Project EIR
Visual Simulation Viewpoint Locations

Figure IV.A-4a. Existing view of project site from westbound MacArthur Freeway.

Figure IV.A-4b. Projected view of project site from westbound MacArthur Freeway. (Visual Simulation 1)

Figure IV.A-5a. Existing view of project site from eastbound MacArthur Freeway.

Figure IV.A-5b. Projected view of project site from eastbound MacArthur Freeway. (Visual Simulation 2)

Figure IV.A-6a. Existing view of project site from MacArthur Boulevard, looking northwest.

Figure IV.A-6b. Projected view of project site from MacArthur Boulevard, looking northwest. (Visual Simulation 3)

Figure IV.A-7a. Existing view of project site from MacArthur Boulevard, looking southeast.

Figure IV.A-7b. Projected view of project site from MacArthur Boulevard, looking southeast. (Visual Simulation 4)

from those approaching and passing by the project site on MacArthur Boulevard.

Figure IV.A-6b illustrates the view looking northwest up MacArthur Boulevard towards the Laurel Business District. In the center of the view is a simulation of the proposed project. Travelers looking northwest up MacArthur Boulevard would see the upper floors of the project including fiber cement lap siding and sand finish plaster siding material and windows and balconies of the residential units. Views of the project would be partially obscured by existing and new vegetation that would be planted as part of the proposed project. The billboard that previously rose from the northwest edge of the site would no longer be visible based on its removal as would be the fence that surrounds the project site. In the near distance, a one-story commercial building is still visible. The trailer park located between the one-story commercial structure and the MacArthur Freeway is no longer visible. In the foreground, on the right, several two-story residential structures and adjacent street parking can still be seen.

Figure IV.A-7b illustrates the view looking southeast down MacArthur Boulevard towards the project site from the Laurel Business District. In the center of the view is the simulation of the proposed project behind the archway located at the intersection of High Street and MacArthur Boulevard. Those traveling towards the project from the west through the Laurel Business District would have a view of the commercial areas located on the ground floor of the project as well as of the north and west façades of the structure, including resident's balconies and windows. Laurel leaf artwork planned for the northwest corner of the structure of the proposed project to relate the project to the adjacent Laurel Business District would be clearly visible to those approaching the site from the west. Those looking southeast down MacArthur Boulevard would also see the upper floors of the project including fiber cement lap siding and sand finish plaster siding material and windows of the residential units. Views of the project would be partially obscured by new vegetation that would be planted as part of the project. The billboard that once rose from the northwestern edge of the site would be removed and no longer visible in this view of the project site. To the right of center, the vacant lot located across High Street from the project site can be seen. In the distance, through the archway and behind the simulation of the project, a walkway that crosses the MacArthur Freeway is partially visible. Only highway directional signs located on High Street are still visible. In the foreground, one-story commercial buildings, street vegetation, sidewalks, and parking areas considered part of the commercial area of the Laurel Business District are still visible.

As shown in the simulations, the proposed five-story building would be substantially taller than the majority of existing and older development in the area and would be highly visible from some locations, including along public streets in the project vicinity including High Street, MacArthur Boulevard, and the MacArthur Freeway. However, due to the site's adjacency to the MacArthur Freeway, which is elevated, the additional height, mass, and scale of the development would not substantially degrade the existing visual character or quality of the site and its surroundings. The project was approved by the Planning Commission on February 20, 2008 after two reviews by the Design Review Committee (September of 2006 and January of 2008). The Planning Commission added conditions of approval to the project related to windows, the art feature, and stucco siding in order to give City staff final review and approval over minor elements of the building design.

The project would change the look of the area due to the height and mass of the structure; however, the overall character of the area would not be degraded because the project has been revised to address the issues raised in the aforementioned Design Review meetings related to bulk, height, materials, and textures in order to ensure that it enhances the visual character of the area. Moreover, the project meets the objectives of the following aforementioned policies from the Land Use and Transportation Element: Policy I/C3.1 Enhancing Business Districts, Policy I/C3.4 Strengthening Vitality, Policy I/C4.3 and Policy N12.7 Reducing Billboards, Policy T6.2 Improving Streetscapes, Policy N1.5 Designing Commercial Development, Policy N3.8 Required High-Quality Design, Policy N3.9 Orienting Residential Development, Policy N3.10 Guiding the Development of Parking, Policy N7.1 Ensuring Compatible Development, Policy N7.2 Defining Compatibility, Policy N7.4 Designing Local Streets and Policy N9.7 Creating Compatible but Diverse Development. Additionally, since the proposed project has previously undergone design review and has been refined with recommendations incorporated to ensure compatibility with the design review criteria listed earlier in this section there would be no major conflicts between the proposed design of the project and the design review criteria making the impact less than significant. Furthermore, Design Review approval is still required by the Planning Commission as part of the planning review process.

c. Significant Aesthetic Resources Impacts

The proposed project would not result in any significant aesthetic-related impacts.

d. Cumulative Aesthetic Resources Impacts

As analyzed throughout this section, the proposed project would not result in a significant aesthetic impact by creating a substantial adverse effect on a scenic vista; substantially damaging scenic resources; substantially degrading the existing visual character or quality of the site and its surroundings, nor would it substantially damage a scenic resource, including, but not limited to, trees, rock outcroppings, and historic buildings located within a state or locally designated scenic highway.

As described above, implementation of the proposed project would not damage scenic resources within the MacArthur Freeway scenic highway. The proposed project would alter the views from the scenic highway by constructing a new five-story building on an undeveloped lot and by removing a billboard. The lot and billboard are both currently visible for freeway motorists traveling east and west bound on the MacArthur Freeway. Upper floors of the proposed building would be visible to motorists as described above; however, the character of the existing views would remain relatively unchanged. The landscaping, distant views of the hills, and views of the commercial and residential palette would remain essentially unchanged. Additionally, the existing billboard, a known degrading factor to the scenic highway, would be removed. When considering the proposed project together with past, present, and reasonably foreseeable future projects that may be constructed along this stretch of scenic highway, the amount of change from this project would not be considered significant because the amount of change posed by the project is minimal, and the billboard removal is beneficial to the scenic highway views. Moreover, there are no projects currently proposed in the vicinity of the proposed project.[10] For these reasons, the incremental change to the scenic highway views associated with development of this project would not be significant.

The proposed project is consistent with the City's General Plan Land Use designation for the site and together with reasonably foreseeable future development projects is subject to the City's design review process. The purpose of the design review process is to consider the design treatment and relationship of buildings to the surrounding built environment and ensure no significant adverse aesthetic impacts would result. Thus, the proposed project would not combine with, or add to, any potential adverse aesthetic impacts that may be associated with other cumulative development.

[10] Lynn Warner, Planner, City of Oakland. Personal communication with Urban Planning Partners. December 6, 2011.

Cumulative development in combination with the proposed project would result in new buildings of varying size and scale being developed on infill or vacant sites in the area. A consideration of reasonably foreseeable future development reveals that the project is generally consistent with adopted plans and the overall vision for the area. Based on the information in this aesthetic section and for the reasons summarized above, the project would not contribute to any significant adverse cumulative aesthetic impacts when considered together with past, present, and reasonably foreseeable future development. Therefore, the proposed project would have a less-than-significant cumulative impact on aesthetics.

B. AIR QUALITY AND GREENHOUSE GASES

This section addresses air quality and climate change due to associated greenhouse gas (GHG) emissions. The discussion and analysis tiers off of the Housing Element EIR, which assumed development of the project site with 115 multi-family residential units for seniors, consistent with the proposed project. The Housing Element EIR included a project-level air quality and climate change/GHG analysis, although not legally required, so that future development projects under the Housing Element could tier from the Housing Element EIR, and thus would not be required to undergo project-specific toxic air contaminants (TACs), odor, or carbon monoxide (CO) CEQA-related analysis. The Housing Element EIR identified the following potentially significant impacts that are applicable to the High & MacArthur Mixed-Use Project:

Air Quality

AQ-4a. Residential development at specific project sites proposed under the Housing Element could expose occupants to diesel particulate matter from stationary and mobile sources. However, compliance with the City's Standard Conditions of Approval (SCA) would reduce impacts to a less-than- significant level. (LTS with implementation of City SCA)

AQ-4b. Residential development proposed under the Housing Element could expose occupants at certain sites to substantial health risk from gaseous TACs emitted locally from stationary sources. Although compliance with the City's Standard Conditions of Approval would provide that site- specific health risk assessments would be prepared, there is no assurance that such exposures could be reduced to a safe level at every site. (Potentially Significant and Unavoidable) [1]

AQ-5. Residential development at specific project sites proposed under the Housing Element could expose occupants to substantial/frequent odor nuisance resulting from odors emitted by strong local sources. (SU)

AQ-6. Traffic generated by the proposed project would increase traffic volumes at intersections in the plan area. This traffic would emit CO, but not enough to exceed ambient air quality standards. As such, project impacts on localized CO concentrations would be less than significant, and no project-specific CO analysis would be required. (LTS)

AQ-7. Construction and operational emissions from the proposed project would not have cumulative impacts. (LTS)

AQ-8. Cumulative traffic volumes would not result in cumulative impacts. (LTS)

AQ-9. Individual TAC impacts would make a considerable contribution to the affected residents' exposures to TACs. Impacts related to gaseous TACs cannot be mitigated and would be cumulatively significant and unavoidable. (SU)

AQ-10. Odor impacts are unmitigable and could make a considerable contribution to the affected residents' exposures to odor sources. (SU)

[1] The map associated with this impact does not apply to the project site.

Climate Change/Greenhouse Gas Emissions

CC-1. The future development proposed under the 2007-2014 Housing Element would not emit GHGs in exceedance of BAAQMD's project-level threshold of 1,100 MT CO2e/yr and 4.6 MT CO2e/sp/yr, resulting in a less-than-significant impact. (LTS)

CC-2. The 2007-2014 Housing Element would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, resulting in a less-than-significant impact. (LTS)

CC-3. The 2007-2014 Housing Element would not emit GHGs in exceedance of BAAQMD's plan-level threshold of 6.6 MT CO2e/sp/yr, resulting in a less-than-significant impact. (LTS)

CC-4. The 2007-2014 Housing Element would not result in a cumulatively considerable contribution to a cumulative Greenhouse Gas impact from GHG emissions. (LTS)

The proposed project, which includes 115 units, consistent with the development proposal considered in the Housing Element EIR for the project site, would not result in any impacts beyond those identified in the Housing Element EIR as listed above. The potential significant environmental effects of the proposed project related to air quality and climate change/GHG emissions are "adequately addressed" in the Housing Element EIR in that:

A. They have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

B. They have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of Standard Conditions of Approval or mitigation measures, or by other means in connection with the approval of the project.

As a result, further analysis under CEQA is not necessary or legally required. Nonetheless, given this project was initiated prior to completion and certification of the Housing Element EIR, a project-specific analysis has been completed. The findings of this analysis are consistent with the findings of the Housing Element EIR. The project-specific analysis confirms that the proposed project would not result in any new significant or substantially more severe environmental effects, require new or different Standard Conditions of Approval and/or mitigation measures or project alternatives that would be feasible or more effective in mitigating an impact related to air quality or GHG emissions.

This air quality and GHG section incorporates by reference the general discussions from the Housing Element EIR (the broader EIR) and focuses solely on the issues specific to the proposed project. It has been prepared

using methodologies and assumptions recommended in the Bay Area Air Quality District's (BAAQMD) CEQA Guidelines.[2]

A brief overview of the existing setting for air quality and GHG emissions is provided below; please refer to Section 3.3, Air Quality and Section 3.6, Climate Change of the Housing Element EIR, which are incorporated by reference for a more detailed description. The impact analysis discusses the expected emissions specific to the proposed project, evaluates the proposed project's potential adverse effects on air quality and GHG emissions in the context of what was already evaluated in the Housing Element EIR to the extent feasible. City Standard Conditions of Approval and mitigation measures necessary to reduce both project and cumulative potentially significant effects are identified.

1. Air Quality Setting

The following discussion provides a very brief overview of existing air quality in the region and the Oakland area. Please refer to Section 3.3, Air Quality of the Housing Element EIR (see pages 3.3-2 to 3.3-9) for a more detailed description.

a. Existing Air Quality Conditions and Standards

Both the State and federal governments have established health-based standards related to air quality. An overview of air pollutants and toxic air contaminants (TACs) and the associated Federal and state standards is provided below.

(1) Air Pollutants

The Air Quality Background sub-section of the Housing Element EIR describes air pollutants for which national and State standards have been promulgated. These pollutants are termed "criteria" pollutants and are most relevant to air quality planning and regulation in the Bay Area and include ozone, carbon monoxide (CO), respirable particulate matter (PM10), fine particulate matter (PM2.5), and sulfur dioxide (SO2). Table IV.B-1 shows current State and national ambient air quality standards and the attainment status for the Bay Area for each pollutant.

BAAQMD monitors criteria air pollutant concentrations at a number of monitoring stations throughout the Bay Area. The air quality in the Bay Area, including Oakland, has generally improved over the past 20 years, as motor

[22] Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*. May.

TABLE IV.B-1 AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT

		California Standards[a]		National Standard[b]	
Pollutant	**Averaging Time**	**Concentration**	**Attainment Status**	**Concentration[c]**	**Attainment Status**
Ozone (O3)	8-Hour	0.07 ppm (137 µg/m3)	Nonattainment	0.075 ppm	Nonattainment[d]
	1-Hour	0.09 ppm (180 µg/m3)	Nonattainment	Not Applicable	Not Applicable[c]
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m3)	Attainment	9.0 ppm (10 mg/m3)	Attainment[f]
	1-Hour	20 ppm (23 mg/m3)	Attainment	35 ppm (40 mg/m3)	Attainment
Nitrogen Dioxide (NO2)	Annual Mean	0.030 ppm (56 mg/m3)	Attainment	0.053 ppm (100 µg/m3)	Attainment
	1-Hour	0.18 ppm (338 µg/m3)	Attainment	0.100 ppm	Unclassified
Suspended Particulate Matter (PM10)	Annual Mean	20 µg/m3	Nonattainment[g]		
	24-Hour	50 µg/m3	Nonattainment	150 µg/m3	Unclassified
Suspended Particulate Matter (PM2.5)	Annual Mean	12 µg/m3	Nonattainment[g]	15 µg/m3	Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m3[i]	Nonattainment
Sulfur Dioxide (SO2)	Annual Mean	Not Applicable	Not Applicable	0.03 ppm (80 µg/m3)	Attainment
	24-Hour	0.04 ppm (105 µg/m3)	Attainment	0.14 ppm (365 µg/m3)	Attainment
	1-Hour	0.25 ppm (655 µg/m3)	Attainment	Not Applicable	Not Applicable

Notes:
Lead (Pb) is not listed in the above table because it has been in attainment since the 1980s. ppm = parts per million
mg/m3 = milligrams per cubic meter
µg/m3 = micrograms per cubic meter
[a] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter – PM10, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM10 annual standard), then some measurements may be excluded. In particular, measurements are excluded that ARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.
[b] National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the

most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 ppb) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m3. The 24-hour PM2.5 standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m3. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM10 is met if the 3-year average falls below the standard at every site. The annual PM2.5 standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.
[c] National air quality standards are set by EPA at levels determined to be protective of public health with an adequate margin of safety.
[d] In June 2004, the Bay Area was designated as a marginal nonattainment area of the national 8-hour ozone standard. EPA lowered the national 8-hour ozone standard from 0.80 to 0.75 ppm (i.e., 75 ppb) effective May 27, 2008. EPA will issue final designations based upon the new 0.75 ppm ozone standard by March 2010.
[e] The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
[f] In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
[g] In June 2002, ARB established new annual standards for PM2.5 and PM10.
[h] The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005 and became effective on May 17, 2006.
[i] EPA lowered the 24-hour PM2.5 standard from 65 µg/m3 to 35 µg/m3 in 2006. EPA issued attainment status designations for the 35 µg/m3 standard on December 22, 2008. EPA has designated the Bay Area as nonattainment for the 35 µg/m3 PM2.5 standard. The EPA designation will be effective 90 days after publication of the regulation in the Federal Register. President Obama has ordered a freeze on all pending federal rules; therefore, the effective date of the designation is unknown at this time.
Source: Bay Area Air Quality Management District, 2010. Bay Area Attainment Status.

vehicles have become cleaner, agricultural and residential burning has been curtailed, and consumer products containing Reactive Organic Gases (ROG) have been reformulated or replaced.

Table 3.3-2 in the Housing Element EIR (see page 3.3-6) identifies the federal and State ambient air quality standards for the major criteria air pollutants along with the ambient pollutant concentrations. Table IV.B-2 provides additional data for 2009 and 2010.

(2) Toxic Air Contaminants

In addition to the criteria air pollutants listed above, another group of pollutants, commonly referred to as TACs or hazardous air pollutants can result in health effects that can be quite severe. Many TACs are confirmed or suspected carcinogens, or are known or suspected to cause birth defects or neurological damage. Secondly, many TACs can be toxic at very low concentrations. For some chemicals, such as carcinogens, there are no thresholds below which exposure can be considered risk-free.

Industrial facilities and mobile sources are significant sources of TACs. The electronics industry, including semiconductor manufacturing, has the potential to contaminate both air and water due to the highly toxic

TABLE IV.B-2 SUMMARY OF AMBIENT AIR QUALITY IN OAKLAND

Air Pollutants	2006[a]	2007[a]	2008[a]	2009[b]	2010[b]
Ozone					
Maximum 1-hour concentration measured	0.088 ppm[c]	0.04 ppm	0.086 ppm	0.092 ppm	0.097 ppm
Days exceeding State 0.09 ppm 1-hour standard	0	0	0	0	1
Maximum 8-hour concentration measured	0.06 ppm	0.04 ppm	0.06 ppm	.063	.058
Days exceeding national 0.08 ppm 8-hour standard	0	0	0	0	0
Days exceeding State 0.07 ppm 8-hour standard[d]	0	0	0	0	0
Respirable Particulate Matter (PM10)					
Maximum 24-hour concentration measured	54.0 µg/m3[e]	57.6 µg/m3	37.6 µg/m3	ND	ND
Days exceeding national 150 µg/m3 24-hour standard	0	0	0	ND	ND
Days exceeding State 50 µg/m3 24-hour standard	1	1	0	ND	ND
Fine Particulate Matter (PM2.5)					
Maximum 24-hour concentration measured	43.9 µg/m3	51.2 µg/m3	30.1 µg/m3	36.3 µg/m3	25.2 µg/m3
No. of days exceeding national 35 µg/m3 24-hour standard[f]	6	6	0	3	0
Annual Arithmetic Mean (AAM)	10.3 µg/m3	8.7 µg/m3	9.5 µg/m3	9.2 µg/m3	7.8 µg/m3
Does measured AAM exceed national 15.0 µg/m3 AAM standard?	No	No	No	No	No
Does measured AAM exceed State 12.0 µg/m3 AAM standard?	No	No	No	No	No
Carbon Monoxide (CO)					
Maximum 8-hour concentration measured	1.81 ppm	1.57 ppm	1.43 ppm	1.99 ppm	1.63 ppm
Number of days exceeding national and State 9.0 ppm 8-hour standard	0	0	0	0	0
Nitrogen Dioxide (NO2)					
Maximum 1-hour concentration measured	0.063 ppm	0.058 ppm	0.062 ppm	.062 ppm	.064 ppm
Days exceeding State 0.25 ppm 1-hour standard	0	0	0	0	0

Note: ND = No Data

[a] Data for ozone was obtained from the Oakland – 9925 International Boulevard and San Leandro County Hospital monitoring stations while data for all other criteria pollutants were taken from the Fremont – Chapel Way monitoring station.
[b] Data for all pollutants were obtained from the Oakland–9925 International Boulevard monitoring station, except for PM10, which was taken from the Fremont–Chapel Way monitoring station.
[c] ppm = parts by volume per million of air.
[d] The California 8-hour ozone standard was implemented on May 17, 2005.
[e] µg/m3 = micrograms per cubic meter.
[f] On December 17, 2006, the U.S. EPA implemented a more stringent national 24-hour PM2.5 standard revising it from 65 g/m3 to 35 g/m3.
Source: California Air Resources Board, Air Quality Data Statistics website, http://www.arb.ca.gov/adam/welcome.html, accessed November 7, 2011.

chlorinated solvents commonly used in semiconductor production processes. Sources of TACs go beyond industry. Various common urban facilities also produce TAC emissions, such as gasoline stations (benzene), hospitals (ethylene oxide), and dry cleaners (perchloroethylene). Automobile exhaust also contains TACs such as benzene and 1,3-butadiene. Most recently, diesel particulate matter was identified as a TAC by the ARB. Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. BAAQMD research indicates that mobile-source emissions of diesel PM, benzene, and 1,3-butadiene represent a substantial portion of the ambient background risk from TACs in the San Francisco Bay Area Air Basin (SFBAAB).

(3) Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress, generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. CEQA Guidelines recommend that odor impacts be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Generally, increasing the distance between the receptor and the source will mitigate odor impacts.

b. Sensitive Land Uses

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions source, or duration of exposure to air pollutants. Land uses such as schools, children's day care centers, hospitals, and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress and other air quality-related health problems. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions than commercial and industrial areas, because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational uses are also considered sensitive, due to the greater exposure to ambient air quality conditions, and because the presence of pollution detracts from the recreational experience. The project consists of residential and retail uses. As stated within the *Significance Criteria for Air Quality,* below, residential uses, schools, parks, daycare centers, nursing homes, and medical centers are considered sensitive receptors for the evaluation of TACs; each of these uses, except parks, is considered a

sensitive receptor for the evaluation of odor impacts. The nearest existing sensitive receptor to the proposed project site is a residential community located approximately 165 feet northeast of the project site.

As noted previously in Chapter I, Introduction and earlier in this Chapter IV, Settings, Impacts, SCAs and Mitigation Measures, CEQA requires analysis of potential adverse effects of the proposed project on the environment, and analysis of potential effects of the environment on the proposed project are not legally required. However, this EIR nevertheless includes analysis of the potential impacts of environmental conditions (odors emissions, air pollutants and contaminants on sensitive receptors) in order to provide information to the public and decision makers.

c. Applicable Plans and Regulations

- Air quality within the Bay Area is addressed through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. Please refer to Section 3.3, Air Quality of the Housing Element EIR, pages 3.3-9 to 3.3-13, for a detailed description of the agencies responsible for improving the air quality within the Bay Area including: the EPA, the California Air Resources Board, the California Energy Commission, and BAAQMD.

A description of the local policies that relate to air quality is provided below.

(1) City of Oakland General Plan

The Open Space Conservation and Recreation (OSCAR) element of the City of Oakland's General Plan includes the following policies related to air quality:

1. Policy CO-12.1: 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.
2. Policy CO-12.4: Require that development projects be designed in a manner which reduces potential adverse air quality impacts.
3. Policy CO-12.6: Control of Dust Emissions. Require construction, demolition, and grading practices which minimize dust emissions.

   These practices are currently required by the City and include the following:

   - Avoiding earth moving and other major dust generating activities on windy days.
   - Sprinkling unpaved construction areas with water during excavation, using reclaimed water where feasible. (Watering can reduce construction-related dust by 50 percent.)

- Covering stockpiled sand, soil, and other particulates with a tarp to avoid blowing dust.
- Covering trucks hauling dirt and debris to reduce spills. If spills do occur, they should be swept up promptly before materials become airborne.
- Preparing a comprehensive dust control program for major construction in populated areas or adjacent to sensitive uses like hospitals and schools.
- Operating construction and earth-moving equipment, including trucks, to minimize exhaust emissions.

(2) City of Oakland Municipal Code

Per the City of Oakland Municipal Code, Title 15 Buildings and Construction, Chapter 15.36 Demolition Permits, 15.36.100 Dust Control Measures,

> "Best Management Practices" shall be used throughout all phases of work, including suspension of work, to alleviate or prevent fugitive dust nuisance and the discharge of smoke or any other air contaminants into the atmosphere in such quantity as will violate any city or regional air pollution control rules, regulations, ordinances, or statutes. Water or dust palliatives or combinations of both shall be applied continuously and in sufficient quantity during the performance of work and at other times as required. Dust nuisance shall also be abated by cleaning and sweeping or other means as necessary. A dust control plan may be required as a condition of permit issuance or at other times as may be deemed necessary to assure compliance with this section. Failure to control effectively or abate fugitive dust nuisance or the discharge of smoke or any other air contaminants into the atmosphere may result in suspension or revocation of the permit, in addition to any other applicable enforcement actions or remedies.[3]

(3) City of Oakland Standard Conditions of Approval

The City's Standard Conditions of Approval are incorporated into projects as conditions of approval regardless of a project's environmental determination. As applicable, the Standard Conditions of Approval 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. For the proposed project, the relevant Standard Conditions of Approval regarding air quality will be incorporated as part of the project. If a Standard Condition of Approval would reduce a potentially significant impact to less than significant, the impact will be determined to be less than significant and no mitigation is imposed. Where there are significant impacts associated with the proposed project despite implementation of a Standard Condition of Approval, additional mitigation measures are recommended.

The City's Standard Conditions of Approval relevant to air quality and GHGs are listed below for reference. The Standard Conditions of Approval would be adopted as requirements of the proposed project if the project is approved

[3] Oakland Municipal Code Ordinance 12152, § 1, 1999.

by the City to help ensure no significant impacts for air quality and GHGs occur; as a result, they are not listed as mitigation measures.

SCA AIR-1. Construction-Related Air Pollution Controls (Dust and Equipment Emissions): *Ongoing throughout demolition, grading, and/or construction.* During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the Bay Area Air Quality Management District (BAAQMD):

BASIC: (Applies to all construction sites)

a) Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). 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 2 feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d) 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.

e) Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f) Limit vehicle speeds on unpaved roads to 15 miles per hour.

g) Idling times shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points.

h) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

i) Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

ENHANCED: All "Basic" controls listed above plus the following controls if the project involves:[4]

i) 114 or more single-family dwelling units;

ii) 240 or more multi-family units;

iii) Nonresidential uses that exceed the applicable screening size listed in the Bay Area Air Quality Management District's CEQA Guidelines;

iv) Demolition permit;

v) Simultaneous occurrence of more than two construction phases (e.g., grading and building construction occurring simultaneously);

vi) Extensive site preparation (i.e., the construction site is four acres or more in size); or

vii) Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).

j) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

k) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

l) Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

m) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

n) 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.

o) Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind-blown dust. Wind breaks must have a maximum 50 percent air porosity.

p) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

q) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

[4] Although the Project does not trigger the enhanced measures per i through vii above, the enhanced measures are required to ensure that construction impacts will remain at less-than-significant levels. More specifically, enhanced measure “u” is required to ensure a less-than-significant impact with respect to diesel exhaust and cancer impacts during construction activity.

r) All trucks and equipment, including tires, shall be washed off prior to leaving the site.

s) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.

t) Minimize the idling time of diesel-powered construction equipment to two minutes.

u) The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

v) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

w) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM.

x) Off-road heavy diesel engines shall meet the CARB's most recent certification standard.

SCA AIR-2 – Exposure of Air Pollution (Toxic Air Contaminants: Particulate Matter). *Prior to issuance of a demolition, grading, or building permit.*

A. Indoor Air Quality: In accordance with the recommendations of the California Air Resources Board (CARB) and the Bay Area Air Quality Management District, appropriate measures shall be incorporated into the project design in order to reduce the potential health risk due to exposure to diesel particulate matter to achieve an acceptable interior air quality level for sensitive receptors. The appropriate measures shall include **one** of the following methods:

   1) The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the CARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to air polluters prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Planning and Zoning Division for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required.

   2) The applicant shall implement all of the following features that have been found to reduce the air quality risk to sensitive receptors and shall be included in the project construction plans. These features shall be submitted to the Planning and Zoning Division and the Building Services Division for review and approval prior to the issuance of a demolition, grading, or

building permit and shall be maintained on an ongoing basis during operation of the project.

a) Redesign the site layout to locate sensitive receptors as far as possible from any freeways, major roadways, or other sources of air pollution (e.g., loading docks, parking lots).

b) Do not locate sensitive receptors near distribution center's entry and exit points.

c) Incorporate tiered plantings of trees (redwood, deodar cedar, live oak, and/or oleander) to the maximum extent feasible between the sources of pollution and the sensitive receptors.

d) Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets or exceeds an efficiency standard of MERV 13. The HV system shall include the following features: Installation of a high efficiency filter and/or carbon filter to filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters shall be used.

e) Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on exposure modeling from the pollutant sources.

f) Install indoor air quality monitoring units in buildings.

g) Project applicant shall maintain, repair and/or replace HV system on an ongoing and as needed basis or shall prepare an operation and maintenance manual for the HV system and the filter. The manual shall include the operating instructions and the maintenance and replacement schedule. This manual shall be included in the CC&Rs for residential projects and distributed to the building maintenance staff. In addition, the applicant shall prepare a separate homeowners manual. The manual shall contain the operating instructions and the maintenance and replacement schedule for the HV system and the filters.

B. Outdoor Air Quality: To the maximum extent practicable, individual and common exterior open space, including playgrounds, patios, and decks, shall either be shielded from the source of air pollution by buildings or otherwise buffered to further reduce air pollution for project occupants.

SCA AIR-3 – Exposure to Air Pollution (Toxic Air Contaminants: Gaseous Emissions). *Prior to issuance of a demolition, grading, or building permit.*

A. Indoor Air Quality: In accordance with the recommendations of the California Air Resources Board (CARB) and the Bay Area Air Quality Management District, appropriate measures shall be incorporated into the project design in order to reduce the potential risk due to exposure to toxic air contaminants to achieve an acceptable interior air quality level for sensitive receptors. The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the CARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project

residents/occupants/users to air polluters prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Planning and Zoning Division for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required.

B. Exterior Air Quality: To the maximum extent practicable, individual and common exterior open space, including playgrounds, patios, and decks, shall either be shielded from the source of air pollution by buildings or otherwise buffered to further reduce air pollution for project occupants.

2. Physical Setting for Air Quality

The BAAQMD is the regional air quality agency for the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are detailed in Section 3.3, Air Quality of the Housing Element EIR (see pages 3.3-11 to 3.3-13).

3. Air Quality Impacts, Standard Conditions of Approval, and Mitigation Measures

This section discusses potential impacts to air quality that could result from implementation of the project. The section begins with the significance criteria, which establish the thresholds used to determine whether an impact is significant. The latter part of this section presents the impacts associated with the project and identifies necessary Standard Conditions of Approval and mitigation measures, as appropriate.

a. Significance Criteria for Air Quality

The proposed project would result in a significant impact to air quality if it would:[5]

1. During project construction result in average daily emissions of 54 pounds per day of ROG, NOx, or PM2.5 or 82 pounds per day of PM10.

[5] On March 5, 2012, the Alameda County Superior Court issued a judgment invalidating the May 2011 BAAQMD CEQA Thresholds. Nevertheless, in the absence of further technical guidance, the City is generally continuing to use the BAAQMD 2011 CEQA Thresholds and Guidelines.

2. During project operation result in average daily emissions of 54 pounds per day of ROG, NOx, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NOx, or PM2.5 or 15 tons per year of PM10.
3. Contribute to CO concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour.
4. During either project operation or project construction expose persons by siting a new source or a new receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of greater than 0.3 micrograms per cubic meter of annual average PM2.5.
5. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

A cumulative impact would occur if conditions would:

6. During either project operation or project construction expose persons by siting a new source or a new receptor to substantial levels of TACs resulting in (a) a cancer risk level greater than 100 in a million; (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0; or (c) an increase of greater than 0.8 micrograms per cubic meter of annual average PM2.5.

Thresholds regarding impacts to climate change are presented in the GHG emissions and climate change analysis part of this section, following the cumulative air quality analysis.

b. Less-than-Significant Air Quality Impacts

The less-than-significant air quality impacts that would result from implementation of the proposed project are described below.

(1) Construction Emissions (Criterion 1)

The City of Oakland's threshold of significance is based on the BAAQMD threshold. Based on the BAAQMD threshold of significance, mid-rise apartment projects that contain fewer than 240 dwelling units would not result in the generation of construction-related criteria air pollutants and/or precursors that exceed the screening criterion. As this project will include 115 dwelling units, construction-related emissions are not expected to be significant and quantification of potential construction-related impacts is not

required. Nonetheless, an analysis was completed for informational purposes. The Housing Element did not include a specific discussion of construction-period impacts.

Construction activities would result in the emission of ROG, NOx, CO, SOx, and particulates (PM10 and PM2.5) 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 NOx from these emissions sources would incrementally add to the regional atmospheric loading of ozone precursors during construction.

The URBEMIS2007 model of the California Air Resources Board was used to quantify construction emissions, which are presented in Table IV.B-3. Construction activities are expected to last the duration of approximately 12 months. The estimated emissions assume the following construction phases: mass grading (2 months), trenching (2 months), building construction and application of architectural coatings (6 months), and asphalt paving (2 months). The estimation of construction emissions is based on URBEMIS2007 model defaults for the number and type of equipment utilized in each phase of construction activity. Table IV.B-3 illustrates the number and type of equipment utilized in each phase of construction activity. As shown in Table IV.B-4, project construction would not result in average daily emission of 54 pounds or more per day of ROG, NOx, or PM2.5 or 82 pounds or more per day of PM10, and as a result would not exceed the BAAQMD Construction Threshold for daily emissions. The project would be subject to SCA AIR-1, listed above, which would further minimize this already less-than-significant impact.

(2) Operation Emissions (Criterion 2)

The proposed 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, which uses EMFAC2007 (CARB's vehicle emissions model for cars and trucks). URBEMIS2007 calculates area source emissions based on the size of the project.

TABLE IV.B-3 CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Water Trucks	Other/Miscellaneous	Grader	Rubber Tired Dozer	Tractor / Loader / Backhoe	Excavator	Pavers	Cement Mixer	Rollers	Forklift	Cranes
Mass Grading – 2 Months	1		1	1	1						
Trenching – 2 Months		1			1	2					
Building Construction – 6 Months					1					2	1
Paving – 2 Months					1		1	4	1		

Source: Urban Crossroads, Inc., 2012.

TABLE IV.B-4 AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (POUNDS PER DAY)

	Emissions (pounds per day)					
Activity	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Mass Grading	2.86	**23.50**	13.03	0.0	1.18	1.08
Trenching	2.51	18.83	11.42	0.0	1.13	1.04
Building Construction & Architectural Coatings	41.42	11.52	24.67	0.02	0.76	0.64
Building Construction & Architectural Coatings & Asphalt Paving	**43.32**	22.90	**33.46**	**0.02**	**1.75**	**1.55**
Maximum Daily Emissions	**43.32**	**23.50**	**33.46**	**0.02**	**1.75**	**1.55**
BAAQMD Construction Threshold	54	54	None	None	82	54
Significant Impact?	No	No	No	No	No	No

Source: Urban Crossroads, Inc., 2012.

Table IV.B-5 summarizes mobile and area emissions for operation of the proposed project and show that project operation would not result in average daily emission of 54 pounds or more per day of ROG, NOx, or PM2.5, or 82 pounds or more per day of PM10. As a result and consistent with the findings of the Housing Element EIR, no significant impact would occur.

(3) CO Concentrations (Criterion 3)

The Housing Element EIR found that traffic generated by the anticipated housing development would increase traffic and associated CO emissions, but not enough to exceed ambient air quality standards. The Housing Element analysis concluded that project impacts on localized CO concentrations would be less than significant, and no project-specific CO analysis would be required. Consistent with this finding, the proposed project would not significantly contribute to CO concentrations exceeding the State Ambient Air Quality Standards (AAQS) of 9 ppm averaged over 8 hours and 20 ppm for 1 hour.

Pursuant to BAAQMD CEQA Guidelines, localized CO concentrations should be estimated for projects in which (1) project-generated traffic would conflict with an applicable congestion management program established by the county congestion management agency, or (2) project-generated traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, such as tunnels, parking garages, bridge underpasses, natural or urban street canyons, and below-grade roadways).

The proposed project is not expected to conflict with an applicable congestion management program. Traffic volumes at affected intersections total 4,067 for the AM Peak hour and 4,826 for the PM Peak hour for Cumulative Year 2035 conditions. As such, the project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour and would have a less-than-significant impact.

(4) Toxic Air Contaminants – Project Construction (Criterion 4)

Screening tables published by BAAQMD for evaluation of air toxic risks from construction activities indicate that for a less than 1-acre residential land use construction site (such as the proposed project), a distance of at least 311 feet (95 meters) from sensitive receptors would be reasonably assured to result in less-than-significant levels of risk.[6] Sensitive receptors near the

[6] Bay Area Air Quality Management District (BAAQMD), 2010. *Tables for Air Toxics Evaluation During Construction.* May.

TABLE IV.B-5 ESTIMATED DAILY OPERATIONAL EMISSIONS FOR THE PROPOSED PROJECT

	Emissions (pounds per day)					
Source	**ROG**	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area Source Emissions	8.56	1.57	8.86	0.00	0.02	0.02
Operational (Vehicle) Emissions	3.96	3.42	36.11	0.04	6.12	1.17
Total	**12.52**	**4.99**	**44.97**	**0.04**	**6.14**	**1.19**
BAAQMD Operational Threshold	54	54	None	None	82	54
Significant Impact?	No	No	No	No	No	No

Source: Urban Crossroads, Inc., 2012.

project site include residences along High Street that are within 311 feet (95 meters) of the project site. Therefore, the BAAQMD's screening tables cannot be used to "screen out" the potential that construction-period health risks would not be significant. As such, a screening-level health risk analysis was performed.

According to the BAAQMD CEQA Guidelines and City of Oakland significance criteria, any proposed project that would expose persons to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of greater than 0.3 micrograms per cubic meter of annual average PM2.5 through the siting of new source or a new receptor would be considered to have a significant cumulative air quality impact. The use of construction equipment on the project site, such as front-end loaders, backhoes, cranes, forklifts and trucks results in diesel emission exhaust, or diesel particulate emissions. The project site is located in an urban area in close proximity to existing residential uses. The nearest existing sensitive receptor to the proposed project site is a residential community located approximately 165 feet northeast of the project site.

Health Risk to Adjacent Residences

Consistent with BAAQMD's recommended methodology, OHHEA's inhalation cancer risk and inhalation chronic hazard equations were used to calculate the potential risks to sensitive receptors due to these construction-period concentrations of diesel particulate matter (DPM). The Health Risk

Assessment (HRA) found that the maximum exposed individual could be exposed to the following health risk levels:

- **Carcinogenic Impacts (Criterion a):** The results of the HRA indicated that the maximum exposed inhalation cancer risk over a 70-year averaging time would be an inhalation cancer risk of 0.95 in 1 million, which does not exceed the threshold of 10 in 1 million. OEHHA age sensitivity factors (ASF) are used to add age-specific weighting factors in calculating cancer risks from exposures of infants, children, and adolescents to reflect their special sensitivity to carcinogens. OEHHA recommends weighting cancer risk by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, by a factor of 3 for exposures that occur from 2 years through 15 years of age, and by a factor of 1 for exposures that occur from 16 through the full 70-year exposure.[7] The recommended ASF for lifetime exposure is 1.7. Applying these age sensitivity factors results in an averaged age sensitive inhalation cancer risk of 1.6 in 1 million. This risk level also does not exceed the threshold of 10 in a million and therefore the potential for increased cancer risk would be less than significant.
- **Chronic Impacts (Criterion b):** The results of the HRA indicate that the maximum chronic hazard index would be a chronic non-cancer inhalation index of 0.06, which is less than the threshold of an index of 1.0. Therefore, the potential for chronic exposure would be less than significant.
- **Acute Impacts (Criterion b):** The only TAC expected to be emitted in any substantial quantity is diesel exhaust particulate. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel Fueled Engines as a Toxic Air Contaminant* (ARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute noncancer health risk guidance value. While the lungs are a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure

[7] Bay Area Air Quality Management District (BAAQMD), 2010. *Tables for Air Toxics Evaluation During Construction.* May.

information to establish a short-term noncancer health risk guidance value for respiratory effects. Therefore, the potential for short-term acute exposure from project construction-related toxic emissions would be less than significant.

- **PM2.5 Impacts (Criterion c):** Total PM2.5 emissions from URBEMIS equals 0.048 short tons per year. This was converted to grams/second/square meter (using a conversion factor of 1 short ton per year = 0.0287475637 g/s) then dividing the project area (0.93 acres = 3,763.58 m2), resulting in an emission rate of 4.425E-07 g/s/m2.[8]

  This emission rate was entered into SCREEN3 with the same parameters as discussed above, resulting in a maximum 1-hour output of 2.481 µg/m3. The maximum 1-hour concentration from the SCREEN3 output was converted to an annual average concentration as discussed above; the resulting annual average concentration is 0.28 µg/m3 which is less than the threshold of 0.3 µg/m3.

As previously noted, the analysis assumes implementation of the City's SCA AIR-1 (Basic and Enhanced measures as previously discussed).

Construction activity that uses traditional diesel-powered equipment such as bulldozers, generators and cranes all contribute to both cancer and non-cancer health risks. Long-term exposure to DPM poses the highest cancer risk, but even short term exposure (such as during a construction period) at high concentrations can pose a risk for cancer or non-cancer health concerns. Due to the variable nature of construction activity, the generation of TAC emissions would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations.

Methodology

BAAQMD recommends that the same community risk and hazard thresholds of significance for project operations be applied to construction. However, BAAQMD suggests associated impacts should be addressed on a case-by-case basis, taking into consideration the specific construction related characteristics of each project and proximity to off-site receptors, as applicable.

The methods used in the following analysis of health risks associated with DPM from project-related construction activities are consistent with CEQA Guidelines and BAAQMD health risk guidance, which includes by reference *Air Toxics Hot Spots Program Risk Assessment Guidelines* published by the

[8] 4.425E-07 g/s/m2 = 0.0000004425 g/s/m2.

OEHHA.[9] The health risk assessment includes three primary calculations, each of which are based on conservative (i.e., worst case) assumptions; (1) an estimate of construction-period DPM emission; (2) a calculation of DPM concentrations at the maximum exposed individual; and (3) an estimate of excess cancer risk and chronic health risks.

DPM Emissions
Consistent with BAAQMD recommended methodology, PM10 from exhaust has been used as a surrogate for DPM. The total DPM emissions resulting from project construction activity has been calculated using the Urban Land Use Emissions Model (URBEMIS). Input and assumptions used in the URBEMIS model for the project's construction period effects have been calculated based on the following construction period assumptions:

- The assumed construction schedule is as proposed based on information from the project applicant which assumes construction activity would last the duration of approximately one year (twelve months).
- Assumptions regarding the types of diesel equipment to be used during the construction period are based on URBEMIS defaults (see Table IV.B-X for more information).
- Emission rates from all off-road diesel engines are assumed to comply with City of Oakland Standard Conditions of Approval which require that the off-road equipment (more than 50 horsepower) achieve a project wide fleet-average 20 percent NOx reduction and a 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average.

The estimated average annual emissions generated by this equipment (assuming daily operating load factors and construction periods) are approximately 0.05 metric tons of DPM per year, averaged across the construction period. This was converted to grams/second/square meter (using a conversion factor of 1 short ton per year = 0.0287475637 g/s) then dividing the project area (0.93 acres = 3,763.58 m2), resulting in an emission rate of 3.94063E-07 g/s/m2.[10]

This emission rate was entered into SCREEN3 with the same parameters as discussed above, resulting in a maximum 1-hour output of 2.672 µg/m3. The maximum 1-hour concentration from the SCREEN3 output was converted to an annual average concentration as discussed below.

[9] Office of Health & Environmental Assessment (OEHHA), 2003.
[10] 3.94063E-07 g/s/m2 = 0.000000394063 g/s/m2.

The following methodology was used to calculate cancer risk and chronic health effects, as outlined in the BAAQMD's *Screening Tables for Air Toxics Evaluation During Construction Version 1.0, May 2010:*

Cancer risks were calculated following the OEHHA's *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA 2003). For the purposes of this analysis, cancer risk was assumed to occur exclusively through the inhalation pathway. To estimate cancer risk, the inhalation dose was calculated using this equation and recommended OEHHA default values:

$$Dose = \frac{(Cair)(DBR)(A)(EF)(ED)(1X\ 10\text{-}6)}{AT}$$

where
Dose = Dose through inhalation (mg/kg/d).
Cair = Concentration in air (µg/m3), annual average from air dispersion model.
DBR = Daily breathing rate (L/kg body weight-day), 302.
A = Inhalation absorption factor, 1.
EF = Exposure frequency (250 days), from URBEMIS modeling.
ED = Exposure duration (1 year), from URBEMIS modeling.
$1X\ 10^{-6}$ = Micrograms to milligrams conversion.
AT = Averaging time, 25,550 days.

Using the inhalation dose, the cancer risk was estimated according to the following equation:

$$Cancer\ Risk = (Dose)(Cancer\ Potency)(1 \times 10^{6})$$

where
Cancer Risk = Excess cancers per million people exposed
Dose = Dose through inhalation (mg/kg/d)
Cancer Potency = Cancer potency factor for substance (kg-day/mg) (1.1)
1×10^{6} = Conversion factor

For cancer risk, the District has adopted OEHHA updated guidance for calculating cancer risk that accounts for the possible differences in risk associated with early-in-life exposures (OEHHA 2009). The OEHHA recommends using ASFs to weight exposures that occur early in life for prenatal, postnatal, and juvenile exposures such that a factor of 10 is used for the third trimester to age 2 years, and a factor of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood. For analysis purposes, the ASF applied to this project is 1.7.

The calculation of non-cancer risks was done following the OEHHA's *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA 2003). Non-cancer risks were determined following the OHHEA methodology shown here:

Calculate the inhalation chronic hazard quotient for DPM.

$$\textit{[Chronic Hazard Quotient]} = \frac{\textit{[Annual Avg. Concentration]}}{\textit{[Chronic REL (5 for DPM)]}}$$

Therefore:

$$\textit{[Chronic Hazard Quotient]} = \frac{0.30523}{5}$$

Airborne DPM Concentrations

The SCREEN3 air dispersion model was used to calculate the anticipated maximum 1-hour concentration of DPM at off-site sensitive receptor locations. This model conservatively assumes the worst case meteorology for assessing emission concentrations over time, and provides estimated concentrations at varying distances. The result of the SCREEN3 model for a 1-hour concentration was then scaled to derive an annual average ground-level concentration for the maximum exposed individual (MEI) calculated to occur at a distance of 70 meters (~230 feet) from the site, it should be noted that SCREEN3 automated distances were utilized and include distances from 20m to 1,000m as a conservative measure. In order to estimate the annual average concentration, the 1-hour concentration of DPM is multiplied first by a factor to convert the 1-hour concentration to an 8-hour concentration, then the 8-hour concentration is annualized based on the number of total hours of operation over the year that are expected. This methodology is available in the *Air Toxics Hot Spots Program Risk Assessment Guidelines* published by the OEHHA (Appendix H).[11] The guideline states that the annual average concentration should be calculated as follows:

(C annual) = (c1-hr)(8-hour ratio[12]) (total annual hours of operation/8760 hrs [total hours per year])

[11] Office of Health & Environmental Assessment (OEHHA), 2003.

[12] Estimating the 8-hour average concentration using the U.S. EPA screening factor of 0.7 ±0.2 as the longest averaging period of continuous release. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (August 2003), Appendix "H" states that the lower range of the screening factor, which would be 0.5 should be used, because the annual average is the final product and variability due to seasonal differences are not accounted for otherwise. Therefore $C_{8\text{-hour}} = (C_{1\text{-hr}}) \times (0.5)$.

(C annual) = (c1-hr)(0.5) (2000hrs [8 hrs per day x 250 days)/8760 hrs [total hours per year])

where
C annual = Concentration in air (µg/m3), annual average.
C 1-hr = 1-hour Concentration in air (µg/m3), as output by the SCREEN3 model (14.31 µg/m3).

Therefore:

(C annual) = (2.672) (0.5) (2000 hrs/8760 hrs)
(C annual) = 0.305023

Since the construction equipment operates all over the site, for the purposes of this analysis, consistent with the BAAQMD's *Screening Tables for Air Toxics Evaluation During Construction Version 1.0, May 2010* guidance document, emissions are modeled as an "area source" encompassing the project site area. The SCREEN3 input parameters are shown in Table IV.B-6.

TABLE IV.B-6 SCREEN3 INPUT PARAMETERS

Source Type	=	Area Source
Emission Rate (g/s/m^2)	=	3.94063E-07[a]
Source Height (m)	=	5.0
Length of Side (m)	=	61.3480
Receptor Height (m)	=	1.80
Urban/Rural Option	=	Urban

Notes: g/s/m^2 = grams per second per meter squared
m = meters

[a] 3.94063E-07 g/s/m2 = 0.000000394063 g/s/m2.
Source: Urban Crossroads, Inc. 2012.

Additional details on the methodology for the construction HRA is provided in Appendix B.

PM2.5 – Project Construction
Total PM2.5 emissions from URBEMIS equal 0.048 short tons per year. This was converted to grams/second/square meter (using a conversion factor of 1 short ton per year = 0.0287475637 g/s) then dividing the project area (0.93 acres = 3,763.58 m2), resulting in an emission rate of 0.0000004425 g/s/m2.

This emission rate was entered into SCREEN3 with the same parameters as discussed above, resulting in a maximum 1-hour output of 2.481 µg/m3.

The maximum 1-hour concentration from the SCREEN3 output was converted to an annual average concentration as discussed above; the resulting annual average concentration is 0.28 µg/m3 which is less than the threshold of 0.3 µg/m3.

(5) Toxic Air Contaminants – Project Operation (criterion 4)

The Housing Element EIR found that residential development proposed under the Housing Element could expose occupants at certain sites to substantial health risk from gaseous TACs emitted locally from stationary sources. Although compliance with the City's Standard Conditions of Approval would ensure that site-specific health risk assessments would be prepared, however it acknowledged that there is no assurance that such exposures could be reduced to a safe level at every site.

The exposure risk to future residents of the project to substantial pollutant concentrations and TACs would not exceed the thresholds of significance under BAAQMD criterion for cancer or chronic health risks. It is unlikely that future residents of the project site would be exposed to a health risk which would be substantially greater than the average in California. This would be a less-than-significant impact.

The California Air Resources Board (CARB) has developed guidelines to be considered in the siting of new sensitive land uses (including residential uses) to protect vulnerable populations from the adverse health impacts of traffic-related emissions. The guidelines are not regulatory, nor are they binding on local agencies. Specifically, the CARB's advisory recommendation for sensitive land uses proposed near freeways and high-traffic roads is to "[a]void siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day." Sensitive uses include residences, day care centers, playgrounds and medical facilities. The proposed project would place residential uses within approximately 60 feet of the nearest edge of the MacArthur Freeway. However, the CARB Air Quality Land Use Handbook recognizes that there is no "one size fits all" solution to land use planning, and that in addressing housing and transportation needs, the benefits of urban infill, community economic development priorities and other quality of life issues are also important, and these must be considered and weighed by local decision-makers when siting projects. The Handbook also acknowledges that the relative risk from site to site can vary greatly, and that to determine actual risk near a particular facility, a site-specific analysis (e.g., health risk assessment) is necessary.

The Health Risk Assessment (HRA) prepared to evaluate the possible risks of exposure to TACs at the proposed project site (see Appendix B) found that future residents living at the project site would be exposed to the following health risk levels:[13]

- **Carcinogenic Impacts (Criterion a):** The results of the HRA indicated that the maximum exposed individual (MEI) inhalation cancer risk associated with living at the proposed project for 70 years would be an inhalation cancer risk of 3.55 in 1 million, which is less than the threshold of 10 in 1,000,000. The inhalation cancer risk for 30-year exposure would be 1.53 in 1,000,000 and child risk levels (a nine-year exposure duration) would be 0.81 in 1,000,000. Therefore, the potential for carcinogenic exposure would be less than significant.
- **Chronic Impacts (Criterion b):** The maximum chronic hazard index would be 0.00137 for the 70-, 30-, and 9-year exposure scenario. Therefore, the potential for chronic exposure would be less than significant, which is less than the threshold of 1.0.
- **Acute Emission Impacts (Criterion b):** The only TAC expected to be emitted in any substantial quantity is diesel exhaust particulate. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on Identifying Particulate Emissions from Diesel Fueled Engines as a Toxic Air Contaminant (ARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute noncancer health risk guidance value. While the lungs are a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure information to establish a short-term noncancer health risk guidance value for respiratory effects. Therefore,

[13] According to the BAAQMD CEQA Guidelines and City of Oakland significance criteria, any proposed project that would expose persons to substantial levels of TACs resulting in (a) a cancer risk level greater than 10 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of greater than 0.3 micrograms per cubic meter of annual average PM2.5 through the siting of new source or a new receptor would be considered to have a significant cumulative air quality impact.

the potential for short-term acute exposure from project-related toxic emissions would be less than significant.

- **PM2.5 Impacts (Criterion c):** The predicted PM2.5 exposure to future residents of the project is estimated to be 0.00687 µg/m3 which is less than the threshold of 0.3 µg/m3.

While 9- and 30-year exposure durations can be used to represent potential impacts to adults over a range of residency periods, all HRAs must present the results based on 70-year exposure. The 9- and 30-year durations correspond to the central tendency and high-end estimates for residency time. The parameters used for the 9-year exposure scenario are for the first nine years of life and are thus protective of children.

Children, for physiological as well as behavioral reasons, have higher intake rates on a per kilogram body weight basis and thus receive a higher dose from contaminated air than adults. Therefore, the daily point estimate (e.g. inhalation rate) for the 9-year exposure duration is higher than for the 30-year and 70-year (adult) exposure durations.

The modeling assumptions include individual inhalation of 100 percent outdoor air at that location for 70 years, while residing outside the residence 350 days every year for 24-hours each day. The HRA results indicate an exposure risk that would not exceed the BAAQMD criterion for cancer or chronic health risks and, therefore, it is unlikely that future residents of the project site would be exposed to a health risk which would be substantially greater than the average in California.

The HRA was conducted without the consideration of the proposed central ventilation/filtration system. This system, which is included as part of the project, would have a minimum efficiency reporting value (MERV) of 13, an efficiency consistent with the ASHRAE 52.2 standards.

Because individuals spend most of their time indoors, the addition of such an upgraded HVAC system (as required under SCA AIR-2 and AIR-3) would significantly improve indoor air quality in the dwelling units on the project site and further reduce the potential for any increased health risk.

<u>PM2.5 – Project Operations</u>
The predicted PM2.5 exposure to future residents of the Project is estimated to be 0.00687 µg/m3 which is less than the threshold of 0.3 µg/m3.

(6) Odor (Criterion 5)

The proposed project would not frequently and, for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people, specifically in residential uses, schools, daycare centers, nursing homes, or medical centers. In general, the types of land uses that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations. No such uses are proposed with the project.

Certain engines, including diesel-powered engines used for construction, can also generate objectionable odors. Diesel engines would be used for some construction equipment. Odors generated by construction equipment would be variable, depending on the location and duration of use. Diesel odors may be noticeable to some individuals at certain times, but would not affect a substantial number of people. As previously indicated within the Significance Criteria, sensitive receptors for odor impacts include residential uses, schools, daycare centers, nursing homes, and medical centers. Since the project would not include any substantial objectionable odors, this is a less-than-significant impact.

Commercial uses at the project site could include a restaurant, which could generate temporary odors from cooking. However, these odors are generally not considered objectionable. Per City of Oakland Municipal Code, Chapter 8.28: Solid Waste Collection and Disposal and Recycling, every owner of any premises in the city from which solid waste is produced shall dispose of the solid waste through the City's regular solid waste collection service, made at least once a week or more often as may be required to adequately serve the premises. Therefore, odor-related impacts from the project would be less than significant.

The Housing Element EIR conservatively identified the following significant impact related to odor:

> **AQ-5.** Residential development at specific project sites proposed under the Housing Element could expose occupants to substantial/frequent odor nuisance resulting from odors emitted by strong local sources. (SU)

As discussed under the Housing Element EIR Impact AQ-3 and shown in Figure 3.3-8, the City of Oakland has active businesses which emit odors. In accordance with the recommendations in the BAAQMD Thresholds, the City of Oakland created a map of known odor sources including food processing facilities, chemical manufacturers, greenwaste and recyclers, and the East Bay Municipal Utility District (EBMUD) wastewater treatment facility. The map presents a reasonable estimation of all the odor sources within the City of

Oakland, based upon business tax records. In addition, buffer zones were drawn around the identified sites (based on the BAAQMD criteria) which encompass nearly the entire City of Oakland, and includes all of the Housing Sites.

BAAQMD advises that there are no feasible mitigation measures to reduce the impact of siting receptors near odor sources, except for increasing the distance between the receptor and the source. All of the individual Housing Sites for future "project-level" development, including the project site are located within the BAAQMD-recommended odor buffer distances. Consequently, a specific proposed housing development on one of these sites could potentially expose occupants to substantial/frequent odor. More specifically, the proposed project site is located within the 2-mile buffer from Chemical Manufacturing and the 1-mile buffer from Green Waste/Recycling. In other words, there are Chemical Manufacturing and Green Waste/Recycling facilities located close enough to the proposed project that they may create objectionable odors to future residents at the proposed project site. BAAQMD Guidelines state that a significant impact would result when an odor source located within the 1- and 2-mile buffer zones of sensitive receptors has five or more confirmed complaints per year averaged over three years. A review of BAAQMD records indicates that no odor complaints have been filed over the last three years for any of the subject facilities within a 1 and 2-mile buffer of the proposed project site.[14] Thus, the proposed project would not expose new residents to significant odor and the project's impact related to odor would be less than significant.

(7) Cumulative Air Quality Impacts (Criterion 6)

The following discussion addresses the potential air quality effects under cumulative conditions.

The project's individual emissions would contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable.

Criteria Pollutants

According to the BAAQMD CEQA Guidelines and City of Oakland significance criteria, any proposed project that would individually have a significant air

[14] Bay Area Air Quality Management District (BAAQMD), 2012. Response to Public Records Requests Numbers: 2012-05-0207; 2012-05-0206; 2021-05-0205; 2012-05-0204; and 2012-05-0203 dated May 29.

quality impact would also be considered to have a significant cumulative air quality impact. Since the project would not result in significant criteria pollutant impacts with implementation of City SCA AIR-1 for criteria pollutants, the project's contribution of, or exposure to these types of emissions would not be cumulatively considerable.

Toxic Air Contaminants

CARB and BAAQMD have conducted a health risk assessment (HRA) to understand the emissions pattern and the potential public health risk from exposures to DPM from sources related to Port of Oakland operations, the Union Pacific (UP) rail yard and other significant land-based sources of DPM. The HRA found that significant portions of Oakland, including the project site, are exposed to elevated DPM levels from these sources such that the estimated additional cancer risk for residents is about 500 per million.

The proposed project would contribute additional DPM and PM2.5 emissions during its construction period such that existing sensitive receptors would not be exposed to an increased cancer risk exceeding 10 in a million, or an increase of greater than 0.3 µg/m3 of annual average exposure to PM2.5. These individual construction-period project emission levels would be not be cumulatively considerable.

c. Significant Air Quality Impacts

The proposed project would not result in any significant air quality impacts.

d. Cumulative Air Quality Impacts

See discussion in C(7) above. No significant cumulative impacts would result.

4. Greenhouse Gas Emissions Setting

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, 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, the precise causes of such warming and its potential effects are far less certain.[15] While the greenhouse effect is responsible for maintaining a habitable climate on Earth, human activity has caused increased concen-

[15] "Global climate change" is a broad 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 in certain areas, even though the world, on average, is warmer.

trations of these gases in the atmosphere, contributing to an increase in global temperatures and alterations of climactic conditions.

The information on climate change and GHG emissions is voluminous. Please refer to Section 3.5, Climate Change of the Housing Element EIR, pages 3.5-1 through 3.5-22 for a more detailed description.

5. GHG Impacts, Standard Conditions of Approval, and Mitigation Measures

This section discusses potential climate change and GHG emission impacts that could result from implementation of the project and is provided for informational purposes. The Housing Element EIR's analysis showed that residential development projects of less than 172 units would not result in a significant climate change impact and, therefore, the City will not require project-specific GHG analysis for such projects. Since the proposed project is only 115 units, no GHG analysis is required. Nevertheless, one has been performed in the interest of being conservative and providing information to the public and decision makers.

The section begins with the significance criteria, which establish the thresholds used to determine whether an impact is significant. The latter part of this section presents the impacts associated with the project and identifies necessary Standard Conditions of Approval and mitigation measures, as appropriate.

a. Criteria of Significance

The project would have a significant impact on the environment if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:

   Project-Level Impacts[16]

   a. For a project involving a stationary source,[17] produce total emissions of more than 10,000 metric tons of CO2e annually.

[16] The projects expected GHG emissions during construction should be annualized over a period of 40 years and added to the expected emissions during operation for comparison to the threshold. A 40-year period is used because 40 years is considered the average life expectancy of a building before it is remodeled with considerations for increased energy efficiency. The thresholds are based on the BAAQMD thresholds. The BAAQMD thresholds were originally developed for project operation impacts only. Therefore, combining both the construction emissions and operation emissions for comparison to the threshold represents a conservative analysis of potential GHG impacts.

[17] Stationary sources are projects that require a BAAQMD permit to operate.

b. For a project involving a land use development,[18] produce total emissions of more than 1,100 metric tons of CO2e annually AND more than 4.6 metric tons of CO2e per service population[19] annually.[20]

2. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

Since the project site is not located in an area that would be subject to coastal or other flooding resulting from climate change (i.e., is not in an area vulnerable to either a 15-inch or a 55-inch sea level rise), the potential effects of climate change (e.g., effects of flooding on the project site due to sea level rise) on the proposed project are not discussed in this EIR.

b. Less-than-Significant GHG Impacts

This section discusses less-than-significant GHG emission impacts.

(1) Potential Project Activities Contributing to GHG Emissions

Construction and operation of the proposed 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.[21]

The Housing Element EIR concluded that future development proposed under the 2007-2014 Housing Element would not emit GHGs in exceedance of BAAQMD's project-level threshold of 1,100 MT CO2e/yr and 4.6 MT CO2e/sp/yr, resulting in a less-than-significant impact (see Impact CC-1).

Overall, the following activities associated with a typical 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. However, planting of additional vegetation would result in additional carbon sequestration and lower the carbon footprint of the project.

[18] Land use developments are projects that do not require a BAAQMD permit to operate.

[19] The service population includes both the residents and the employees of a proposed project.

[20] A project's impact would be considered significant if the emissions exceed BOTH the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact would be considered less than significant if a project's emissions are below EITHER of these thresholds.

[21] United Nations Environment Programme (UNEP), 2007. Buildings and Climate Change: Status, Challenges and Opportunities, Paris, France.

- **Construction Activities.** Construction equipment typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment.
- **Gas, Electric, and Water Use**. Natural gas use results in the emissions of two GHGs: 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.[22]
- **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. Also, as discussed previously, the project is designed to limit auto trips.

While the proposed project and all developments of similar land uses 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 in detail in Section 3.5, Climate Change of the Housing Element EIR (see pages 3.5-19 to 3.5-22) would collectively reduce the levels of GHG emissions and contributions to global climate change attributable to activities throughout Oakland.

Table IV.B-7 presents a gross estimate of the proposed project's CO2e emissions resulting from increases in motor vehicle trips, as well as from natural gas combustion and emissions estimates from electricity usage (including electricity for conveyance and treatment of increased water usage (see Appendix B for model output).

GHG emissions from construction, vehicles, and other area sources associated with the proposed project were calculated using CARB's URBEMIS2007 Version 9.2 model and trip generation data from the project's traffic analysis. The results of the URBEMIS model were then imported into

[22] California Energy Commission (CEC), 2004. Water Energy Use in California (online information sheet) Sacramento, CA, August 24, http://energy.ca.gov/pier/iaw/industry/water.html, accessed July 24, 2007.

TABLE IV.B-7 ESTIMATED GROSS CO2E EMISSIONS FROM THE PROPOSED PROJECT (METRIC TONS/YEAR OF CO2E)

Emissions Source	CO2e Emissions (Metric Tons/Year)
Transportation	561.13
Area Source	1.13
Electricity	201.05
Natural Gas	137.89
Water & Wastewater	22.61
Solid Waste	91.57
Annualized Construction Emissions	9.57
Total Project CO2e Emissions	**1,024.95**

Note: MTCO2e = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, and/or nitrous oxide).
Source: Urban Crossroads, Inc., 2011.

the BAAQMD's GHG model (BGM), Version 1.1.9 (see Appendix B for BGM output data). Several adjustments were made by the BGM model to transportation emissions after they have been imported from URBEMIS:

- After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pavley" regulation.
- Then, CO2 is converted to CO2e by multiplying by 100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs (from leaking air conditioners). CO2 emissions represent more than 90 percent of the project's contribution of GHG emissions.
- Finally, CO2e is adjusted to account for the low carbon fuels rule.

Additionally, pursuant to City of Oakland thresholds, the project's total construction emissions (annual emissions projected over the construction period) of 382.63 metric tons were then annualized over a period of 40 years and added to the expected emissions during operation for comparison to the threshold. A 40-year period is used because 40 years is considered the average life expectancy of a building before it is remodeled with considerations for increased energy efficiency.

Data in Table IV.B-7 indicates that GHG emissions resulting from the proposed project would not exceed the 1,100 metric tons per year threshold.

Thus, this confirms that project-level GHG impacts would be less-than-significant, consistent with the findings of the Housing Element EIR.

The 2010 BAAQMD CEQA Guidelines indicates that, "when calculating project GHG emissions to compare to the thresholds, the lead agency should ensure that project design features, attributes, or local development requirements are taken into consideration as part of the project as proposed, and not viewed as mitigation measures. For example, projects that are mixed-use, infill, and/or proximate to transit service and local services would have substantially lower vehicle trip rates and associated GHG emissions than what would be reflected in standard, basin-wide average URBEMIS default trip rates and emission estimates."

The following design features, existing plans and policies compliance, and applicable Standard Conditions of Approval are included in the project, effectively reducing the amount of gross GHG emissions generated during construction and during operation.

- *City of Oakland.* According to the Pedestrian Master Plan, the City of Oakland has the highest walking rates for all cities in the nine-county San Francisco Bay Region. It is noted that these high pedestrian trips are likely because Oakland's neighborhoods are densely populated and well-served by transit, including Bay Area Rapid Transit (BART), AC Transit, Amtrak, and the Alameda Ferry. As such, the project would reduce transportation-related GHG emissions compared to emissions that may occur from the same level of development elsewhere in the outer Bay Area. Specifically, the project site is well-served with transit facilities including 31 weekday buses stopping within ¼-mile of the site.
- *Local Serving Retail.* The project would include a total of 115 apartments and 3,446 square feet of commercial space. This mixed-use characteristic of the project would serve to reduce transportation-related GHG emissions as compared to the same level of residential development where no such mix of uses are provided.
- *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.

- *Construction Waste.* The proposed project would be required to comply with the Construction and Waste Reduction Ordinance and submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, construction-related truck traffic, which primarily have diesel fueled engines, would be reduced since demolition debris hauled off site would be reused on site. In addition, reuse of concrete, asphalt, and other debris will reduce the amount of material introduced to area landfills.

In addition, emissions would also be reduced since the project is subject to all the regulatory requirements, mitigation measures, and Standard Conditions of Approval indicated in this EIR (and associated Initial Study) that would reduce GHG emissions of the project. These include, but are not limited to:

- SCA TRANS-1: Parking and Transportation Demand Management
- SCA AIR-1: Construction-Related Air Pollution Controls
- SCA UTIL-2: Waste Reduction and Recycling

Refer to Chapter II, Summary, for the full text of these SCAs.

In light of these project design features, site attributes, or local development requirements, the GHG emissions associated with the proposed project were re-calculated using CARB's URBEMIS2007 Version 9.2 model, and adjusted to reflect the reductions in emissions that would likely be achieved based on the unique features and attributes of the project and its location, as shown in Table IV.B-8. When calculating the adjusted emission levels, no reductions associated with implementation of applicable regulations were accounted for unless such were above and beyond those already considered by BAAQMD in development of the BAAQMD CEQA Guidelines.

Table IV.B-8 shows the adjusted GHG emissions resulting from the proposed project.

(2) Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing GHG Emissions (Criterion 2)

The Housing Element EIR found that the 2007-2014 Housing Element would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, resulting in a less-than-significant impact. The construction and operation of the proposed project is consistent with the 2007-2014 Housing Element. The "Applicable Plans and Regulations" in Section 3.5, Climate Change of the Housing Element EIR, pages 3.5-9

TABLE IV.B-8 ESTIMATED ADJUSTED CO2E EMISSIONS FROM THE PROPOSED PROJECT (METRIC TONS/YEAR)

Emissions Source	CO2e (Metric Tons/Year)
Transportation	486.45
Area Source	1.13
Electricity	201.05
Natural Gas	137.89
Water & Wastewater	22.61
Solid Waste	91.57
Annualized Construction Emissions	9.57
Total Project MTCO2e Emissions	**950.27**
Percent Reduction, Compared to Estimated Project Gross Emissions	**7.28%**

Note: MTCO2e = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, and/or nitrous oxide).
Source: Urban Crossroads, Inc., 2011.

through 3.5-22, describe the plans, policies, and regulations relevant to the Housing Element and the proposed project that are related to the reduction of GHG emissions. The proposed project would not conflict with these plans, policies, and regulations.

Specifically, implementation of this project would be consistent with the GHG reduction goals of AB 32 because the GHG emissions associated with the Housing Element and future housing development projects would not exceed the BAAQMD thresholds which were developed to be consistent with AB 32's goals. Therefore, the impact of the Housing Element in terms of conflict with GHG-reducing plans, policies, and regulations would be less than significant.

c. Significant GHG Impacts

Consistent with the findings of the Housing Element EIR the proposed project would not result in a significant GHG emissions impact and no mitigation measures are necessary.

d. Cumulative GHG impacts

The GHG analysis above addresses cumulative GHG impacts. No significant cumulative GHG impacts would result from the proposed project.

C. HAZARDS AND HAZARDOUS MATERIALS

This section provides an overview of the potential hazardous materials and other hazards related to development of the High & MacArthur Mixed-Use Project that could pose a significant threat to human health or the environment. The setting section describes the pertinent federal, State, and local laws, regulations, and policies related to development of the proposed project and existing conditions associated with hazards and hazardous materials at the proposed project site. The impacts and mitigation measures section defines the criteria of significance and identifies potential impacts and mitigation measures related to hazards and hazardous materials for the proposed project. The discussion and analysis in this section tiers off of the Housing Element EIR, which consistent with the proposed project, assumed development of the project site with 115 multi-family residential units for seniors.

The Housing Element EIR assessed impacts associated with hazards and hazardous materials as part of the Initial Study completed for the Housing Element project. The Initial Study identified that development of the housing units anticipated as part of the Housing Element would be located on sites throughout the City that may contain sediments and soils contaminated with hazardous materials and that improper handling of contaminated soil and/or groundwater could result in the inadvertent release of hazardous materials into the environment. More specifically, the Housing Element Initial Study determined that the anticipated development would result in less-than-significant impacts related to creating hazards to the public involving foreseeable upset and accidental release of hazardous substances; potential emission or handling of hazardous materials or waste within ¼-mile of a school; involving hazardous materials sites compiled pursuant to Government Code Section 65969.5; and potential exposure of people or structures to wildfires. The Housing Element Initial Study determined that compliance with existing General Plan policies, Municipal Code standards and Standard Conditions of Approval would reduce potential impacts to a less-than-significant level. Additionally, the Initial Study found that opportunity sites listed on the Cortese List are not precluded from development, but that adequate CEQA review of development on opportunity sites will be required to determine whether development of a specific site would result in a significant hazard to the public or the environment. The Housing Element EIR did not identify significant hazards and hazardous materials impacts.

The proposed project, which includes 115 units consistent with the development proposal considered in the Housing Element EIR for the project site, would not result in any impacts beyond those identified in the Housing

Element EIR as discussed above. The potential significant environmental effects of the proposed project related to hazards and hazardous materials are "adequately addressed" in the Housing Element EIR in that:

A. They have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

B. They have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific-revisions, the imposition of Standard Conditions of Approval or mitigation measures, or by other means in connection with the approval of the project.

A project-specific analysis has never-the-less been completed. The findings of this analysis are consistent with the findings of the Housing Element EIR. The project-specific analysis confirms that the proposed project would not result in any new significant or substantially more severe environmental effects, require new or different Standard Conditions of Approval and/or mitigation measures or project alternatives that would be feasible or more effective in mitigating an impact related to hazards. This EIR also evaluates impacts peculiar to the proposed project and/or project site, as well as off-site and cumulative impacts.

1. Setting

The following section provides an overview of regulatory agencies, laws, regulations, and existing conditions related to hazards and hazardous materials at the proposed project site.

a. Hazardous Materials Use, Storage, and Disposal

Beginning in the 1970s, governments at the federal, State, and local levels became increasingly concerned about the effects of hazardous materials on human health and the environment. Numerous laws and regulations were developed to investigate and mitigate these effects. As a result, the storage, use, generation, transport, and disposal of hazardous materials are highly regulated by federal, State, and local agencies. Laws and regulations, existing conditions associated with the historical and potential future use, and storage and disposal of hazardous materials at the proposed project site are described below.

(1) Regulatory Context

The U.S. Environmental Protection Agency (USEPA) is the lead agency responsible for enforcing federal laws and regulations pertaining to

hazardous materials that affect public health and the environment. Regulations associated with the Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act (TSCA) are enforced by the USEPA and govern the use, storage, and disposal of hazardous materials.

In 1974, RCRA was enacted to provide a general framework for the USEPA to regulate hazardous waste from the time it is generated until its ultimate disposal. In accordance with RCRA, facilities that generate, treat, store, or dispose of hazardous waste are required to ensure that the wastes are properly managed from "cradle to grave."

In 1976, TSCA was enacted to provide the USEPA authority to regulate the production, importation, use, and disposal of certain chemicals that pose a risk of adversely affecting public health and the environment; TSCA and certain subsequent amendments regulate contaminants such as polychlorinated biphenyls (PCBs), asbestos-containing materials (ACMs), and lead-based paint. TSCA also gives the USEPA authority to regulate the cleanup of sites contaminated with specific chemicals, such as PCBs.

The routine management of hazardous materials in California is administered under the Unified Program.[1] The California Environmental Protection Agency (Cal/EPA) has granted responsibilities to the Oakland Fire Department (OFD) for implementation and enforcement of hazardous materials regulations under the Unified Program as a Certified Unified Program Agency. The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following environmental and emergency response programs for hazardous materials:

- Hazardous Materials Business Plan Program;
- California Accidental Release Prevention Program;
- Underground Storage Tank (UST) Program;
- Above Ground Petroleum Tank Program (spill prevention, control, and countermeasure plans);
- Hazardous Waste Generator Program; and
- Hazardous Waste Tiered-Permitting Program.

Implementation of the Unified Program is consistent with Policy HM-1 in the Safety Element of the Oakland General Plan, as described below.[2]

[1] California Health and Safety Code, Chapter 6.11, §§25404-25404.8.
[2] City of Oakland, 2004. *General Plan*. November.

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

(2) Existing Land Use Conditions

The proposed project site is currently vacant and no hazardous materials are being managed on the site. Previous land uses associated with hazardous materials at the proposed project site that could have resulted in a release of hazardous materials to the subsurface are discussed below.

b. Potential Sources of Hazardous Materials in the Subsurface

Sites with known or potential releases of hazardous materials could affect development of the proposed project. Regulations and existing site conditions related to potential releases of hazardous materials in the vicinity of the proposed project site are described below.

(1) Federal and State Regulatory Context

In 1980, the EPA enacted the Comprehensive Environmental Response, the Compensation and Liability Act (CERCLA), commonly known as the Superfund, to ensure that a source of funds would be available to remediate uncontrolled or abandoned hazardous materials release sites that pose a risk of adversely affecting public health and the environment. Prohibitions and requirements regarding closed or abandoned hazardous waste sites and liability standards for responsible parties were also established by CERCLA. In 1986, the Superfund Amendments and Reauthorization Act amended CERCLA to increase the Superfund budget, modify contaminated site cleanup criteria and schedules, and revise settlement procedures.

In California, the EPA has granted most enforcement authority of federal hazardous materials regulations to Cal/EPA. Under the authority of Cal/EPA, the Department of Toxic Substances Control (DTSC) or the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) is responsible for overseeing the remediation of contaminated sites in the San Francisco Bay area. Under authority from the Regional Water Board, Alameda County Environmental Health (ACEH) implements the Local Oversight Program to oversee the investigation and remediation of leaking petroleum USTs in Alameda County.

Known or suspected contaminated sites under DTSC or Regional Water Board oversight are identified by Cal/EPA pursuant to Government Code §65962.5. The provisions of Government Code §65962.5 require the DTSC and Regional Water Board, as well as the California Department of Health Services and the California Integrated Waste Management Board, to submit information

pertaining to sites associated with solid waste disposal, hazardous waste disposal, and hazardous materials releases to the Secretary of Cal/EPA.

The federal Occupational Health and Safety Administration (OSHA) and California Department of Industrial Relations, Division of Occupational Safety and Health (DOSH) enforce worker health and safety regulations related to construction activities. Under OSHA jurisdiction, the Hazardous Waste Operations and Emergency Response regulations require training and medical supervision for workers at hazardous waste sites.[3] Under DOSH jurisdiction, construction worker health and safety regulations include exposure limits, protective clothing, and training requirements to prevent exposure to hazardous materials.[4]

(2) Local Regulatory Context

The City's General Plan and Standard Conditions of Approval as they relate to hazards and hazardous material are described below.

City of Oakland General Plan

The Open Space and Conservation and Recreation (OSCAR) Element of the City of Oakland's General Plan includes the following policy related to hazards:

> Policy CO-1.2: Soil contamination and hazards: Minimize hazards associated with soil contamination through the appropriate storage and disposal of toxic substances, monitoring of dredging activities, and cleanup 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 in the Open Space, Conservation and Recreation Element of the General Plan is supported by SCAs HAZ-1 through HAZ-6, as described below.[5]

City of Oakland Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to hazards and hazardous materials are listed below for reference. The Standard Conditions of Approval would be adopted as requirements of the proposed project if the project is approved by the City of Oakland to help ensure no significant hazard and hazardous material impacts occur; as a result they are not listed as mitigation measures.

[3] Code of Federal Regulations, Title 29, §1910.120.
[4] California Code of Regulations (CCR), Title 8, §5192.
[5] City of Oakland, 2004. *General Plan*. November.

SCA HAZ-1: Hazards Best Management Practices. *Prior to commencement of demolition, grading, or construction.*
The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. 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.

f) If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

SCA HAZ-2: Site Review by the Fire Services Division. *Prior to the issuance of demolition, grading or building permit.*
The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau, Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.

SCA HAZ-3: Phase I and/or Phase II Reports. *Prior to issuance of a demolition, grading, or building permit.*
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.

SCA HAZ-4: Environmental Site Assessment Reports Remediation. *Prior to issuance of a demolition, grading, or building permit.*
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.

SCA HAZ-5: Best Management Practices for Soil and Groundwater Hazards.
Ongoing throughout demolition, grading, and construction activities.
The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards.

a) Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland.

b) Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources.

c) Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all

previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.

SCA HAZ-6: Radon or Vapor Intrusion from Soil or Groundwater Sources. *Ongoing.* The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with 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. Applicant shall implement the approved recommendations.

(3) Existing Land Use Conditions

The proposed project site is currently vacant and no hazardous materials are being managed on the site. Previous land uses associated with hazardous materials at the proposed project site that could have resulted in a release of hazardous materials to the subsurface are discussed below.

The condition of soil, soil gas, and groundwater impacted by hazardous materials at the proposed project site was evaluated based on a review of regulatory databases and previous environmental investigations. Previous land uses associated with hazardous materials at the proposed project site have included a service station, automobile repair shop, and Pacific Gas & Electric Company (PG&E) substation.

In the 1940s, the southeast portion of the proposed project site was developed into a service station.[6] Sanborn Maps from 1950 to 1957 indicated that there were two petroleum USTs associated with the service station located adjacent to MacArthur Boulevard.[7] The service station was later expanded to include an automobile repair shop known as "Roberts Tires". In 1961, MacArthur Boulevard was widened onto the Roberts Tires property over the location of the petroleum USTs.[8] Operation of Roberts Tires ceased

[6] DTSC, 2002. *Removal Action Work Plan for Soil, Roberts Tire Facility, Oakland, California*.

[7] The Sanborn Library, LLC, 1925. Sanborn Map.

[8] DTSC, 2002, op. cit.

in 1996 and the buildings, underlying foundations, and pavement were completely removed by 2004 as shown in Figure IV.C-1.[9]

In 1958, the west portion of the proposed project site was developed into a PG&E substation. PG&E operated a transformer at the substation that contained 1,377 gallons of oil from 1958 to 1988. 1n 1995, all of the equipment was dismantled and removed from the property.

Circa 1950, the north portion of the proposed project site was developed for a store and parking lot.[10] A Phase I Environmental Site Assessment (ESA) conducted at the PG&E substation property in 1996 identified the store as "Laurel District Liquors."[11] A review of regulatory databases and previous environmental investigations on adjacent properties did not identify any hazardous material uses on the north portion of the proposed project site.

Between 1999 and 2004, DTSC oversaw a series of environmental investigations related to soil contamination on the Roberts Tires and PG&E substation properties. The soil contamination was believed to have originated from automobile repair activities at Roberts Tires. In 2005, after completion of multiple soil excavations on both properties, DTSC issued a letter of no further action related to soil contamination from Roberts Tires; however, DTSC referred the Roberts Tires property to the Regional Water Board and ACEH to oversee environmental investigations related to groundwater contamination. Groundwater contamination may be related to potential petroleum USTs abandoned on the Roberts Tires Property.

A review of regulatory databases pursuant to Government Code §65962.5 identified releases of hazardous materials at Roberts Tires and the following three adjacent properties: the Unocal Station No. 1156 (Unocal Station), former Shell Service Station, and former Chevron Service Station #9-3676 (Chevron Service Station) as shown on Figure IV.C-1. Environmental investigations performed under DTSC and Regional Water Board oversight for hazardous materials releases at the PG&E substation property, Roberts Tires property, and adjacent sites are summarized below.

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[9] Questa Engineering Corp. (Questa), 2006. *Subsurface Investigation of Groundwater and Vadose Zone Soil at 4311 to 4333 MacArthur Boulevard, Oakland, California*. November 14.

[10] The Sanborn Library, LLC, 1950. Sanborn Map.

[11] Jonas & Associates, Inc., 1996. Phase I Environmental Site Assessment Report, Pacific Gas & Electric Company, Former High Street Substation, 3120 High Street, Oakland, California 94619. July 19.

FIGURE IV.C-1
High & MacArthur Mixed-Use Senior Housing Project EIR
Hazardous Materials Release Sites

SOURCE: www.bing.com/maps 2010

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PG&E High Street Substation

In 1996, a Phase I ESA was conducted at the PG&E High Street Substation property on the proposed project site that identified oil staining on the concrete pad of the former transformer and orange chemical staining on exposed soils adjacent to the Roberts Tires property.[12] In 1999, a Phase II soil investigation identified total petroleum hydrocarbons as motor oil (TPH-mo) and lead in shallow soils at concentrations as high as 16,000 milligrams per kilogram (mg/kg) and 1,700 mg/kg, respectively.[13] PG&E excavated the contaminated soil and disposed of it off-site. The findings of the PG&E Phase II soil investigation prompted DTSC to assess if Roberts Tires was a potential source of the contamination.[14]

Roberts Tires

In 1999, a magnetometer survey conducted by Clearwater Group, Inc. (Clearwater) at the Roberts Tires property on the proposed project site identified five metal objects beneath the ground surface. Three of the five metal objects were considered possible USTs. One of the potential USTs was located beneath MacArthur Boulevard in the approximate area that petroleum USTs were identified on historical Sanborn Maps.[15] Another one of the metal objects likely corresponded to a 100-gallon waste oil UST that was removed during soil excavation activities in 2004.[16]

In December 2000, Clearwater collected and analyzed groundwater samples from six borings at the Roberts Tires property. Concentrations of total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), and TPH-mo in groundwater were reported as high as 13,000 micrograms per liter (µg/L), 14,000 µg/L, and 46,000 µg/L, respectively, which exceeded the current Regional Water Board Environmental Screening Levels (ESLs) for sites not underlain by a potential source of drinking water. Concentrations of benzene, toluene, ethyl benzene, and total xylenes (BTEX) reported in groundwater also exceeded the current Regional Water Board ESLs for non-drinking water. The concentrations of petroleum

[12] Jonas & Associates, Inc., 1996. Phase I Environmental Site Assessment Report, Pacific Gas & Electric Company, Former High Street Substation, 3120 High Street, Oakland, California 94619. July 19.

[13] Engineering/Remediation Resources Group, Inc. (ERRG), 2002. *Final Removal Action Implementation Report, Roberts Tires, Oakland, California*. November.

[14] DTSC, 2002. *Removal Action Workplan for Soil, Roberts Tire Facility, Oakland, California*. June.

[15] Clearwater, 1999. *4331-39 MacArthur Boulevard., Oakland, CA – Magnetometer Survey Results*. September.

[16] ACEH, 2006. *Fuel Leak Case RO0002877, 4311-4333 MacArthur Boulevard., Oakland, CA 94619, Global ID # T0600193302*. December.

hydrocarbons reported in groundwater did not exceed the current ESLs[17] for potential vapor intrusion concerns at residential properties.[18]

In November 2000, DTSC collected four soil samples from the Roberts Tires property as a result of lead and TPH-mo contamination identified in shallow soils on the adjacent PG&E substation property. Concentrations of TPH-mo and lead were identified in shallow soils at concentrations as high as 6,900 mg/kg and 36,400 mg/kg, respectively. DTSC identified lead as the primary contaminant of concern and determined that the source of the contamination was likely from previous automotive repair activities.[19] In 2002, Engineering Remediation Resources Group (ERRG) conducted a soil sampling investigation to delineate the horizontal and vertical extent of lead contamination. The results of the investigation determined that there were two areas with lead contamination within the top ½-foot of soil. On September 9, 2002, ERRG excavated soils between ½ and 2 feet below ground surface (bgs) in the two areas impacted by lead and disposed of the soils off-site. Soil samples collected beneath the excavations confirmed that remaining lead concentrations were below the DTSC's approved cleanup goal of 350 mg/kg.[20]

In 2003, JMK Environmental Solutions, Inc., (JMK) collected and analyzed soil and groundwater samples from six borings at the Roberts Tires property. The borings were located in close proximity to the six borings drilled during Clearwater's environmental investigation in 2000. Soil samples were only collected at depths of 10½ to 20 feet bgs. Low and non-detectable concentrations of petroleum hydrocarbons in soil samples did not indicate any potential sources of contamination from that depth. Concentrations of TPH-g and TPH-d were identified in groundwater as high as 42,000 µg/L and 4,000 µg/L, respectively, which exceeded the current Regional Water Board ESLs for non-drinking water. Concentrations of BTEX reported in groundwater samples also exceeded the current Regional Water Board ESLs for non-drinking water. Concentrations of benzene reported in groundwater

[17] Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. May.

[18] Clearwater, 2000. *Table 1, Groundwater Sample Analytical Results, Former Roberts Tire, 4311-39 MacArthur Boulevard, Oakland, California*. December.

[19] DTSC, 2002. *Removal Action Workplan for Soil, Roberts Tire Facility, Oakland, California*. June.

[20] Engineering/Remediation Resources Group, Inc. (ERRG), 2002. *Final Removal Action Implementation Report, Roberts Tires, Oakland, California*. November.

exceeded the current ESLs[21] for potential vapor intrusion concerns at residential properties.[22]

In 2004, additional shallow soil investigations were performed at the Roberts Tires property that identified elevated concentrations of TPH-d and TPH-mo as high as 570 mg/kg and 8,500 mg/kg. In October 2004, Questa performed a series of soil excavations across the site. Soils were excavated from approximately 1 to 1½ feet bgs across the entire site. Deeper excavations removed soil from approximately 1½ to 4 feet bgs near the center of the site. A 100-gallon waste oil UST was discovered and removed near the southeast corner of the former service station building during the excavation activities. Residual TPH-d and TPH-mo concentrations in soil were below the DTSC cleanup goals of 100 mg/kg and 500 mg/kg, respectively.[23]

On April 28, 2005, the DTSC issued a letter for no further action related to soil contamination of TPH-d, TPH-mo, and lead at Roberts Tires. However, since groundwater beneath the property was contaminated with TPH-g, TPH-d, TPH-mo, and BTEX, the DTSC referred the site to the Regional Water Board and ACEH.[24]

In October 2006, Questa collected soil and groundwater samples from six borings at the proposed project site. Five of the borings were located on the Roberts Tires property and one boring was located on the PG&E substation property. Soil samples were only collected at depths of 11½ to 28 feet bgs. Low and non-detectable concentrations of petroleum hydrocarbons in soil samples did not indicate any potential sources of soil contamination from that depth. Concentrations of TPH-g, TPH-d, and TPH-mo in groundwater were identified as high as 1,700 µg/L, 440 µg/L, and 330 µg/L, respectively, which exceeded the current Regional Water Board ESLs for non-drinking water (Table IV.C-1). Concentrations of BTEX were also reported above the Regional Water Board ESLs for non-drinking water in one groundwater sample collected near the center of the Roberts Tire property (Table IV.C-1). The petroleum concentrations reported in groundwater did not exceed the

[21] Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. May.

[22] JMK, 2003. *Phase II Environmental Site Assessment Report, Vacant Lot, 4311-4333 MacArthur Boulevard, Oakland, California 94619*. March.

[23] Questa Engineering Corp.(Questa), 2004. *Removal Action Sampling and Testing Results, 4311-4333 MacArthur Boulevard, Oakland, California*. December.

[24] DTSC, 2005. Letter to ACEH regarding no further action related to soil contamination at Roberts Tire. April 28.

TABLE IV.C-1 SUMMARY OF ESLS FOR POTENTIAL VAPOR INTRUSION FROM GROUNDWATER

			Contaminants of Concern in Groundwater (µg/L)[a]							
Site Name	**Sample Date**	**ACEH Case Oversight Status**	**TPH-g**	**TPH-d**	**TPH-mo**	**Benzene**	**Toluene**	**Ethyl benzene**	**Xylenes**	**MTBE**
ESLs for Non-Drinking Water (µg/L)[b]			**210**	**210**	**210**	**46**	**130**	**43**	**100**	**1,800**
ESLs for Potential Vapor Intrusion from Groundwater (µg/L)[c]			**NA**	**NA**	**NA**	**540**	**380,000**	**170,000**	**160,000**	**24,000**
Project Site										
Roberts Tires	Oct-06	Active	1,700	440	330	78	240	49	207	2
Adjacent Sites										
Former Chevron Service Station	Jun-98	Closed	5,600	NS	NS	840	290	300	370	ND
Unocal and Former Shell Service Station[d]										

Notes:
ACEH = Alameda County Environmental Health
µg/L = micrograms per liter
NA = not applicable
NS = not sampled
ND = not detected above laboratory reporting limit
TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
TPH-mo = total petroleum hydrocarbons as motor oil
MTBE = methyl tert-butyl ether
[a] The highest concentrations are reported for each site.
[b] Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater;* Table B – Environmental Screening Levels (ESLs), Groundwater is not a Current or Potential Source of Drinking Water.
[c] Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater;* Table E-1 – (Residential) Groundwater Screening L, Evaluation of Potential Vapor Intrusion Concerns.
[d] The Unocal station and former Shell service station had separate releases of petroleum hydrocarbons, but the two groundwater plumes have comingled.
Source: Regional Water Board, (Revised) 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater; Table E-1 - (Residential) Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns. May.

current ESLs[25] for potential vapor intrusion concerns at residential properties.[26]

In a letter dated December 11, 2006, ACEH requested that the owner of the Roberts Tires property conduct additional environmental investigations to characterize the source, extent, and magnitude of TPH-g, TPH-d, TPH-mo, and BTEX concentrations in groundwater.[27] After receiving no response, ACEH issued another letter to the owner of the Roberts Tires property on April 24, 2008 requesting additional environmental investigations at the proposed project site.[28] On July 24, 2009 and February 16, 2011, ACEH issued notices of violation to the property owner for failure to claim the proposed project site in the Regional Water Board's GeoTracker database pursuant to California Code of Regulations, Title 23, Division 3, Chapter 30, Articles 1 and 2, §3893 through §3895.[29] The site was subsequently claimed by the property owner in the GeoTracker database; however, ACEH issued a third notice of violation to the property owner on August 26, 2011, for failure to comply with the environmental investigation directives from ACEH in December 2006 and April 2008. On August 31, 2011 a Notice of Responsibility was sent to the property owner. On April 20, 2012 a Notice of Enforcement Referral was sent from the ACEH to the Regional Water Board.[30]

Adjacent Sites

In 1988, a release of gasoline from a UST was reported at the former Chevron Service Station located immediately northeast of the proposed project site across MacArthur Boulevard. Three gasoline USTs and one waste oil UST were also removed from the site in 1988. ACEH oversaw groundwater monitoring and remediation activities. On March 2, 1999, ACEH issued a letter certifying that site investigation and remedial actions related to the former petroleum

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[25] Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. May.

[26] Questa Engineering Corp.(Questa), 2006. *Subsurface Investigation of Groundwater and Vadose Zone Soil at 4311 to 4333 MacArthur Boulevard, Oakland, California*. November 14.

[27] ACEH, 2006. *Fuel Leak Case No. RO0002877, 4311-4333 MacArthur Boulevard, Oakland, California 94619, Global ID # T0600193302*.

[28] ACEH, 2008. *Fuel Leak Case No. RO0002877 and GeoTracker Global ID T0600193302, Roberts Tires, 4311-4333 MacArthur Boulevard, Oakland, California 94619*.

[29] ACEH, 2009a. *Fuel Leak Case No. RO0002877 and GeoTracker Global ID T0600193302, Site Roberts Tires, 4311-4333 MacArthur Boulevard, Oakland, California 94619 – Groundwater Monitoring Requirements*.

[30] State Water Resources Control Board GeoTracker, August 30, 2012, http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600193302.

USTs at the site were complete and no further action was required. Residual concentrations of TPH-g and BTEX in groundwater exceeded the current Regional Water Board ESLs[31] for non-drinking water (Table IV.C-1). The direction of groundwater flow at the former Chevron Service Station was measured to the southwest.[32] Based on the direction of groundwater flow, residual groundwater contamination may have migrated beneath the proposed project site.

In 1998, a release of gasoline from a UST was reported at the Unocal Station located immediately north of the proposed project site across the intersection of High Street and MacArthur Boulevard. Groundwater monitoring and remediation activities are being overseen by ACEH. The primary contaminants of concern in groundwater at the site are TPH-g, BTEX, and methyl tert-butyl ether (MTBE) (Table IV.C-1).[33] A plume of petroleum hydrocarbons extends southwest from the Unocal Station across MacArthur Boulevard and comingles with a contaminant plume from the former Shell Service Station.[34]

In 1985, a release of gasoline from a UST was reported at the former Shell Service Station located immediately northwest of the proposed project site across High Street. In 2003, three petroleum USTs, two pump islands, and all associated piping were removed from the site. Groundwater monitoring and remediation activities are being overseen by ACEH. The primary contaminants of concern in groundwater at the site are TPH-g, BTEX, and MTBE (Table IV.C-1).[35] A plume of petroleum hydrocarbons from the adjacent Unocal Station comingles with the contaminant plume from the former Shell Service Station.[36] The comingled plume extends southwest from the former Shell service station in the general direction of groundwater flow.[37] The lateral

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[31] Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. May.

[32] ACEH, 1999. *Fuel Leak Site Case Closure for the Former Chevron Service Station #9-3676, 4300 MacArthur Boulevard, Oakland, CA*.

[33] Delta Consultants, 2010. *Semi-Annual Summary Report – Fourth Quarter 2009 through First Quarter 2010, Fuel Leak Case No. RO0000409*. March.

[34] ACEH, 2009b. *Fuel Leak Case No. RO0000409 (GeoTracker Global ID T0600102279), Unocal #1156, 4276 MacArthur Boulevard, Oakland, CA 94619 and RO0000486 (GeoTracker Global ID T0600101261), Shell #13-5701, 4255 MacArthur Boulevard., Oakland, CA 94619 – Comingled Plume*.

[35] Cambria Environmental Technology, Inc., 2005. *Subsurface Investigation Report, Former Shell Service Station, 4255 MacArthur Boulevard, Oakland, California*. June 6.

[36] ACEH, 2009b, op. cit.

[37] Cambria Environmental Technology, Inc., 2005, op. cit.

extent of groundwater contamination has not been defined by the existing monitoring well network. Groundwater contamination from the Unocal Station and former Shell Service Station could potentially have migrated beneath the proposed project site.

c. School Land Use Protections

Hazardous materials used near schools must consider potential health effects to children.[38] Regulations and existing conditions associated with school land use protections in the proposed project vicinity are described below.

(1) Regulatory Context

School districts seeking State funding for construction of a new school must submit a proposal to the California Department of Education for approval. A proposed school site must be evaluated for safety criteria established by the Department of Education[39] and State regulations.[40]

New developments within ¼-mile of an existing school may not emit or handle hazardous or acutely hazardous materials that could pose an adverse risk to the health of children or employees occupying the school. However, if the lead agency preparing the CEQA document for a proposed development has consulted with the school district regarding the hazardous materials concerns and the school district has received written notification of the proposed development at least 30 days prior to certification of the CEQA document, then the development may be approved.[41]

Policy HM-2 in the Safety Element of the Oakland General Plan discourages the City to allow developments that would emit hazardous materials near sensitive receptors, such as schools, as described below.[42]

> Policy HM-2: Reduce the public's exposure to toxic air contaminants through appropriate land use and transportation strategies.

(2) Existing Land Use Conditions

St. Lawrence O-Toole School, for kindergarten through eighth grade, is located approximately 0.11 miles northeast of the proposed project site.[43]

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[38] Title 5 CCR §14010.
[39] California Education Code, §17210 through §17224.
[40] Title 5 CCR §14010.
[41] Public Resource Code, §21151.4.
[42] City of Oakland, 2004. *General Plan*. November.
[43] Ibid.

d. Airport Land Use Protections

Development near airports and heliports can pose a potential hazard to people and property on the ground, as well as create obstructions and other hazards to flight. Regulations and existing conditions associated with the protection of airport land uses in the proposed project vicinity are described below.

(1) Regulatory Context

The Federal Aviation Regulations (FAR) provide criteria for evaluating the potential effects of obstructions on the safe and efficient use of navigable airspace. The Federal Aviation Administration (FAA) requires notification of any proposed construction or alteration projects that exceed the airspace protection criteria established in FAR Part 77. The Airport Land Use Commission (ALUC) of Alameda County has adopted Land Use Plans for public airports in Alameda County, which incorporates the airspace protection criteria provided in FAR Part 77.[44]

(2) Existing Land Use Conditions

The proposed project site is not located within any protected airspace zones for public airports defined by the ALUC of Alameda County.[45] The proposed project site is not located within 2 miles of any private airports or heliports listed by the FAA.[46]

e. Emergency Response Plans

Local policies regarding emergency services in the City of Oakland and designated evacuation routes are described below.

(1) Regulatory Context

In the event of a disaster, the OFD, Office of Emergency Services, oversees the City's Standard Emergency Management System (SEMS), which is a framework for standardizing emergency-response procedures in California. The Office of Emergency Services has prepared a SEMS emergency plan describing how City agencies would respond to declared emergencies in the City.

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[44] ALUC of Alameda County, 1986. *Alameda County, Airport Land Use Policy Plan.* July 16.

[45] Ibid.

[46] FAA, 2009. Airport Data (5010) & Contact Information. Last revised on June 26. http://www.faa.gov/airports/airport_safety/airportdata_5010/. Accessed September 21, 2010.

The City's maintenance and implementation of the SEMS emergency plan is consistent with Policy PS-1 in the Safety Element of the General Plan, as described below.[47]

> Policy PS-1: Maintain and enhance the City's capacity to prepare for, mitigate, respond to and recover from disasters and emergencies.

(2) Existing Land Use Conditions

According to the City of Oakland General Plan, numerous emergency evacuation routes are accessible in the vicinity of the proposed project site. The closest emergency evacuation routes to the proposed project site are along High Street and MacArthur Boulevard.[48]

f. Wildland Fire Hazards

Development within or adjacent to lands susceptible to wildland fires increases the risk for loss of life, property, and resources when wildland fire prevention measures are not applied. Regulations and existing conditions associated with wildland fire hazards in the vicinity of the proposed project are described below.

(1) Regulatory Context

In 2008, the California Department of Forestry and Fire Protection (CAL FIRE) mapped areas in Alameda County with significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Very High Fire Hazard Severity Zones, are classified by the CAL FIRE Director in accordance with Government Code §51175 through §51189 to assist responsible local agencies, such as OFD, identify measures to reduce the potential for losses of life, property, and resources from wildland fire.[49] The Very High Fire Hazard Severity Zones in the vicinity of the proposed project site generally correspond to the Wildfire Prevention Assessment District Map previously produced by the Oakland Fire Prevention Bureau.[50] Developments located within the Wildfire Prevention Assessment District for the City of

[47] City of Oakland, 2004. *General Plan*. November.

[48] Ibid.

[49] CAL FIRE, 2008. *Very High Fire Hazard Severity Zones in LRA*. Recommended by CAL FIRE on September 3.

[50] Oakland Fire Prevention Bureau, 2010. *Wildfire Prevention District Map*. http://www.oaklandnet.com/wildfirePrevention/docs/WPADistrictMap.pdf. Accessed on September 22.

Oakland are required to prepare, implement, and maintain a vegetation management plan.[51]

(2) Existing Land Use Conditions

CAL FIRE has determined that there are no Very High Fire Hazard Severity Zones in the vicinity of the proposed project site.[52] The proposed project site is also not located within or adjacent to the Wildfire Prevention Assessment District determined by the Oakland Fire Prevention Bureau.[53]

2. Impacts, Standard Conditions of Approval, and Mitigation Measures

This section evaluates potential hazard and hazardous materials impacts associated with the proposed project. It also identifies Standard Conditions of Approval and mitigation measures necessary to address these impacts.

a. Criteria of Significance

The project could have a significant impact on human health or the environment if it would:

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. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors
4. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.
5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment.

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[51] City of Oakland Planning & Zoning Division, 2008, *Conditions of Approval & Uniformly Applied Development Standards Imposed as Standard Conditions of Approval.*

[52] CAL FIRE, 2008. *Very High Fire Hazard Severity Zones in LRA*. Recommended by CAL FIRE on September 3.

[53] Oakland Fire Prevention Bureau, 2010. *Wildfire Prevention District Map*. http://www.oaklandnet.com/wildfirePrevention/docs/WPADistrictMap.pdf. Accessed on September 22.

6. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions.
7. Be located within an airport land use plan or, where such a plan has not been adopted, within 2 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.
8. 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.
9. Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
10. 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.

b. Less-than-Significant Hazards and Hazardous Materials Impacts

Less-than-significant impacts related to hazards and hazardous materials are discussed below.

(1) Hazardous Materials Use, Storage, and Disposal (criteria 1-3)

Construction activities would include the use of hazardous materials such as motor fuels, oils, solvents, and lubricants. An accidental release of hazardous materials during fueling, maintenance, or improper operation of construction equipment could potentially occur and pose a risk to construction workers, the public, and the environment. Identification, transportation, use, and disposal of hazardous materials during construction activities are regulated by federal, State, and local laws and regulations. In addition, the BMPS for managing hazardous materials during construction described in SCA HAZ-1 would be adopted as a requirement if the proposed project is approved by the City of Oakland.

The proposed project would routinely handle and use small quantities of commercially-available hazardous materials, such as household cleaning and landscaping supplies. However, these materials would not be used in sufficient quantities to pose a threat to human health or the environment. Compliance with existing regulations and implementation of SCA HAZ-1 during construction would reduce the potential for an accidental release during the routine use, transport, and disposal of hazardous materials associated with the proposed project to a less-than-significant level.

(2) School Land Use Protections (criterion 4)

St. Lawrence O-Toole School is located within ¼-mile of the proposed project site. Hazardous materials used or encountered in the subsurface during construction would be managed in accordance with existing regulations and SCA HAZ-1 and SCA HAZ-5, as described above. No significant quantities of hazardous materials would be used or stored during operation of the proposed project that could pose a significant hazard to human health. Construction and operation of the proposed project would not use or store any acutely hazardous materials. Compliance with existing regulations and implementation of BMPs for managing hazardous materials described in SCA HAZ-1 and SCA HAZ-5 during construction would reduce the potential for school children to be exposed to hazardous materials at the proposed project site to a less-than-significant level.

(3) Hazardous Materials in the Subsurface (criterion 5)

The proposed project site is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. Hazardous materials may be present in soil, soil gas, and groundwater at the proposed project site. Direct contact, inhalation, or ingestion of hazardous materials could cause adverse health effects. The severity of health effects would depend on the contaminant(s), concentration, use of personal protective equipment during construction, and duration of exposure. Construction activities that encounter and disturb hazardous materials in the subsurface, if present, could pose a hazard to construction workers, nearby receptors, and the environment. Future residents, patrons, and trench workers, who come into contact with contaminated media, if present, could also experience adverse health effects.

Environmental investigations performed at the proposed project site between 2000 and 2006 indicate that concentrations of TPH-g, TPH-d, TPH-mo, and BTEX in groundwater have exceeded the current Regional Water Board ESLs for non-drinking water. The current extent and magnitude of groundwater contamination at the proposed project site is unknown. Undocumented petroleum USTs potentially remaining on or immediately adjacent to the proposed project site could be sources of subsurface contamination. ACEH has requested additional investigation activities to characterize the source, magnitude, and extent of groundwater contamination at the proposed project site, but no investigations have been completed in response to ACEH's request.

Releases of petroleum from leaking USTs have been reported at three properties adjacent to the proposed project site. Groundwater contamination from the adjacent service stations could have migrated beneath the project

site. Historic data from the project site show concentrations of groundwater contamination substantially lower than concentrations reported at the adjacent sites (Table IV.C-1).

Management of hazardous materials in soil and groundwater during construction activities are regulated by federal, State, and local laws and regulations. The City's requirements for Phase I ESAs, Phase II investigations, regulatory oversight of remedial actions, BMPs for managing soil and groundwater potentially affected by hazardous materials during construction, and vapor intrusion assessments described in SCA HAZ-1 through SCA HAZ-6 would be adopted as part of the project if the proposed project is approved by the City of Oakland. Implementation of these City requirements (SCA-1 through SCA-6) would meet the current ACEH directives for the property owner to characterize and/or cleanup the project site to protect human health and the environment. Cleanup activities at the project site could include, but are not limited to, removal of the potential UST located beneath MacArthur Boulevard, source removal of contaminated soils, in-situ treatment of soil and groundwater, and/or installation of engineering controls (e.g. vapor barriers). These potential cleanup activities are common for sites that were previously developed with automobile uses, and there is nothing unusual or peculiar about the type and level of contamination at the project site. No secondary impacts are anticipated from implementation of these activities as the City's requirement for utilization of BMPs during cleanup activities (i.e., routine maintenance of equipment, proper disposal of fuels and other chemicals, and secure and safe stockpiling of soil during construction activities). Compliance with existing regulations and implementation of SCA HAZ-1 through SCA HAZ-6 prior to and during construction would reduce the potential for hazardous materials released to the subsurface at the proposed project site to affect construction workers, residents, patrons, and the environment to a less-than-significant level.

(4) Airport Land Use Protections (criteria 7 and 8)

The proposed project site is not located within any airport land use plans for public airports adopted by the ALUC of Alameda County. The proposed project site is also not located within 2 miles of any private airports or heliports listed by the FAA. Therefore, the proposed project site would have no impact related to the use of navigable airspace for airports and heliports.

(5) Emergency Access and Response Plans (criteria 6 and 9)

The proposed project does not include any new streets that exceed 600 feet in length as a result it will not result in less than two emergency access routes for streets exceeding 600 feet in length. The proposed project would not be expected to interfere with the SEMS emergency plan for the City of

Oakland, because development would not restrict access to nearby evacuation routes along High Street and MacArthur Boulevard. Therefore, the proposed project would have no impact related to emergency response or evacuation plans.

(6) Wildland Fire Hazards (criterion 10)

According to CAL FIRE and the Oakland Fire Prevention Bureau, the proposed project site is not located within or adjacent to a Very High Fire Hazard Severity Zone or the City's Wildfire Prevention Assessment District, respectively. Development of the proposed project site would have no impact related to wildland fire hazards.

c. Significant Hazards and Hazardous Materials Impacts

The proposed project would not result in significant impacts to human health or the environment related to hazards and hazardous materials.

d. Cumulative Hazards and Hazardous Materials Impacts

Past, present, and reasonably foreseeable future development adjacent to the proposed project site would not compound or increase environmental impacts related to hazards and hazardous materials. Hazards and hazardous materials impacts are generally site-specific and/or have limited mobility, and would not be expected to have cumulatively considerable effects beyond the proposed project site. Construction and operational activities in the area surrounding the proposed project site could increase the potential exposure of people to hazardous materials, including contaminated soil, soil gas, and groundwater; however, the use, storage, and disposal of hazardous materials are regulated by federal, State, and local laws and regulations. Future handling of hazardous materials at the proposed project site and adjacent properties would be subject to these laws and regulations, and as a result, the cumulative hazardous materials risks would not be significant. Therefore, development of the proposed project site would not result in any significant cumulative hazards and hazardous materials impacts.

D. TRANSPORTATION AND CIRCULATION

This section evaluates potential transportation and circulation impacts that may result from the proposed High & MacArthur Mixed-Use Project (project). The discussion and analysis within this section tiers off of the Housing Element EIR which, consistent with the proposed project, assumed development of the project site with 115 multi-family residential units for seniors. The Housing Element EIR includes a general traffic review of roadway segments likely to be affected by development anticipated under the Housing Element and evaluates previously identified impacted intersections. The Housing Element EIR did not identify the High Street and MacArthur Boulevard intersection as previously impacted. The Housing Element included roadway analysis for the roadway segment of MacArthur Boulevard east of High Street and MacArthur Boulevard east of Lincoln Avenue. The Housing Element EIR found the segment of MacArthur Boulevard east of High Street would operate at acceptable level of level of service (LOS D (and in most cases LOS C) during all study scenarios. The Housing Element found that the segment of MacArthur Boulevard east of Lincoln would operate at unacceptable levels of service in the AM Peak Hour. The Housing Element EIR (page 3.2-86) identified the following potentially significant impacts that are applicable to the project:

Impact TR-31. Roadway Segment #26, MacArthur Boulevard east of Lincoln Avenue, would operate at LOS F (V/C 1.38) during the AM Peak hour in the westbound direction in the Cumulative 2035 with project scenario, compared to LOS F (V/C 1.34) in the 2035 Baseline scenario. Roadway Segment #26 would operate at an unacceptable LOS F without the project during the AM Peak hour; however, the project's trip contribution would increase the V/C ratio by 0.04, which is a significant impact. (SU)

Mitigation Measure TR-1.1 Traffic Impact Study (TIS) for Residential Projects. Prior to approval of a development application for a residential development, that may impact any roadway segment or intersection identified as having a significant impact, the project applicant shall retain a qualified traffic engineer to conduct a Traffic Impact Study (TIS), in accordance with then-current City policies and practices, to identify whether the project would contribute additional vehicular trips to a significant traffic impact on a study roadway segment(s) or intersection(s).

The TIS shall be performed in accordance with then-current City policies and practices, and shall generally identify:

1. The number of trips generated by the proposed project;
2. The mode split for vehicular trips (i.e. the number of generated trips that would be made by private vehicle);
3. The distribution of vehicular trips on local roadways;
4. Based on a quantitative evaluation of the information provided under 1 through 3, above, the City shall make a significance determination of the traffic impact(s)

to roadway(s) or intersection(s) resulting from the proposed project; and

5. If the level of impact identified under 4 would be significant,
6. Mitigation Measure TR-1.2 shall be employed.

TR-1.2 Other Mitigations. Depending on the results of the TIS conducted in TR-1.1, the project applicant's traffic engineer shall evaluate the feasibility of the following broad measures at the intersections identified in TR-1.1 above, and implement those measures determined feasible by the City:

- Install new traffic signals and other roadway improvements that support not only vehicle travel, but all other modes safely to and through the intersection,
- Modify signal operation or phasing,
- Change lane assignment,
- Install bike and pedestrian facilities, and/or
- Optimize signal timing (i.e., adjust the allocation of green time for each intersection approach) for the peak hours.

To implement those measures determined feasible by the City, the project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Plans, Specifications, and Estimates (PS&E) to modify the intersection. All elements shall be designed to City standards in effect at the time of construction and all new or upgraded signals should include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection should be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction.

Current City Standards call for the elements listed below:

- 2070L Type Controller w/ Cabinet Assembly and License seat,
- GPS communication (clock),
- Accessible pedestrian signals (audible and tactile), and crosswalks according to Federal and State Access Board guidelines,
- Countdown Pedestrian Head Module Switch out,
- City Standard ADA wheelchair ramps,
- Video Detection on Existing (or new, if required) Mast Arm Poles, full actuation (where applicable),
- Polara Push Buttons (full actuation),
- Bicycle detection (full actuation),
- Pull Boxes,
- Signal interconnect and communication w/ trenching (where applicable), or through (E) conduit (where applicable)- 600 feet minimum,
- Conduit replacement contingency,
- Fiber Switch,
- PTZ Camera (where applicable), and
- Signal timing plans.

The project sponsor shall fund, prepare, and install the approved plans and improvements.

Impact TR-41. During construction of housing proposed under the project, there may be a need to temporarily close traffic lanes, prohibit parking, and/or block traffic lanes. Construction requires the delivery of building materials, sometimes the import or export of earth fill materials, as well as travel by construction workers on a daily basis to and from the sites, potentially disrupting local traffic flow depending on the specific construction site. Such activities are a temporary but unavoidable part of the construction process. This would constitute a temporary significant impact lasting throughout the construction period. However, compliance with SCAs would reduce this impact. (LTS)

The proposed project, which includes 115 units, consistent with the development proposal considered in the Housing Element EIR for the project site, would not result in any impacts identified in the Housing Element EIR. The Housing Element EIR requires preparation of a TIS for residential projects (see Housing Element Mitigation Measure TR-1.1). A TIS has been prepared for the proposed project and the findings are contained within this section. The transportation analysis for the project found that no significant impacts would result from the proposed project and no new mitigation is required.

1. Setting

The setting for the transportation and circulation issues and the scope of the analysis documented in this section are described below. This section also presents the analysis methodologies and a discussion of the existing conditions and future background conditions.

The City generally requires that a traffic study be performed for all projects that generate 10 or more peak hour trips at a single intersection. This project would generate 35 peak hour vehicle trips, with about 25 trips per hour through the nearest signalized intersection – High Street and MacArthur Boulevard Based on the minimal trip generation and that no other intersections in the area would experience an increase of more than 10 peak hour trips, it was determined that this would be the only intersection where detailed level of service (LOS) calculations would be required for this project.

The existing transportation system serving the project area consists of a network of regional roadways, local roadways, transit services, and pedestrian and bicycle facilities.

a. Scope of Study

This study was conducted according to the requirements of the City of Oakland and the Alameda County Congestion Management Agency (ACCMA). Intersections, rather than midblock roadway segments, are typically the critical capacity-controlling locations for vehicular travel on urban roadway

networks and are the primary basis for determining traffic impacts. One study intersection was selected by the City as most likely to be affected by the proposed project and warranting study in this EIR. No other intersections in the area would experience an increase of more than 10 peak hour trips as a result of the project. The study intersection that was analyzed in detail is the signalized intersection of MacArthur Boulevard and High Street. Based on the project trip generation it was determined in consultation with staff that the project would not generate enough traffic to warrant analysis of the intersections on High Street with the MacArthur Freeway westbound on-ramp or the eastbound off-ramp.

The basis of analysis is peak hour level of service calculations for key intersections in the area. The peak hours are defined as the highest hour for the study intersection between the peak periods of 7:00 am and 9:00 am and between 4:00 pm and 6:00 pm on weekdays. These peak hours will be identified as the AM and PM Peak hours, respectively. The analysis also included a review of bicycle and pedestrian safety conditions in the area. The potential effect of the proposed project on the study intersection was evaluated during the AM and PM Peak hours for the following six scenarios:

- **Scenario 1: Existing Conditions** – Level of service based on existing peak hour volumes and existing intersection configurations.
- **Scenario 2: Existing Conditions Plus Project** – Existing conditions peak-hour volumes plus trips from the proposed project.
- **Scenario 3: Short-Term (Year 2015) Conditions** – Existing traffic plus anticipated traffic from approved developments that would substantially affect the volumes at the project study intersections[1].
- **Scenario 4: Short-Term Conditions (Year 2015) Plus Project** – Short-term conditions peak-hour volumes plus trips from the proposed project.
- **Scenario 5: Cumulative Conditions (Year 2035) Without the Project** – Existing traffic plus anticipated traffic from projected growth in the area based on the County Traffic Model.
- **Scenario 6: Cumulative Conditions (Year 2035) Plus Project** – Cumulative no project conditions peak-hour volumes plus trips from the proposed mixed use development.

b. Methodology

The methods used to evaluate the traffic conditions are described in the following sections. This discussion includes descriptions of the data

[1] The traffic analysis for this EIR commenced prior to the CMA requirement to use 2020 for short-term analysis.

requirements, analysis methodologies, and applicable level of service standards.

(1) Data Requirements

For this study data on the intersection lane configurations, turning movement volumes, pedestrian and bicycle facilities, and public transit routes were collected.

(2) Analysis Methodologies and Level of Service Standards

Existing operational conditions at the one (1) study intersection has been evaluated using Synchro Software to implement the 2000 *Highway Capacity Manual* (*HCM*) Level of Service methodology.[2] Level of service is an expression, in the form of a scale, of the relationship between the capacity of an intersection (or roadway segment) to accommodate the volume of traffic moving through it at any given time. The level of service scale describes traffic flow with six ratings ranging from LOS A to F, with "A" indicating relatively free flow of traffic and "F" indicating stop-and-go traffic characterized by traffic jams.

As the amount of traffic moving through a given intersection or roadway segment increases, the traffic flow conditions that motorists experience rapidly deteriorate as the capacity of the intersection or roadway segment is reached. Under such conditions, there is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays that lead to traffic congestion. This near-capacity situation is labeled LOS E. Beyond LOS E, the intersection or roadway segment capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it.

(3) Signalized Intersections

For signalized intersections, the *HCM* methodology determines the capacity of each lane group approaching the intersection. The level of service is then based on average delay (in seconds per vehicle) for the various movements within the intersection. A combined weighted average delay and level of service are presented for the intersection. Table IV.D-1 summarizes the relationship between level of service designation and average delay at signalized intersections.

[2] Transportation Research Board, 2000. *Highway Capacity Manual*, Washington D.C.

TABLE IV.D-1 SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description of Operations	Average Delay (sec/veh)
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20 to 35
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35 to 55
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80

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

c. Existing Transportation Conditions

The proposed High Street Senior Housing project would be located along the southeastern side of MacArthur Boulevard and southwestern side of High Street. It is in very close proximity to MacArthur Freeway with on and off ramps located on either side of the proposed project. Figure IV.D-1 illustrates the area and its relationship to the surrounding road system including the study intersection while Figure IV.D-2 shows the proposed site plan for the project. The following section generally describes the transportation system in the area, including key facilities of the roadway, transit, pedestrian, and bicycle networks.

(1) Existing Roadway Network

Regional access to the proposed project site is provided by MacArthur Freeway while local access is provided by High Street and MacArthur Boulevard A brief description of these major roadways is described below:

- *MacArthur Freeway* is a major east-west freeway that begins in Marin County at Highway 101 and spans east across the Altamont Pass into San Joaquin County where it joins with Interstate 5. Access to the project site from MacArthur Freeway is provided via ramps at High Street and MacArthur Boulevard
- *High Street* is a four-lane street that runs southwest to northeast starting at Otis Drive and ending at Tompkins Avenue.

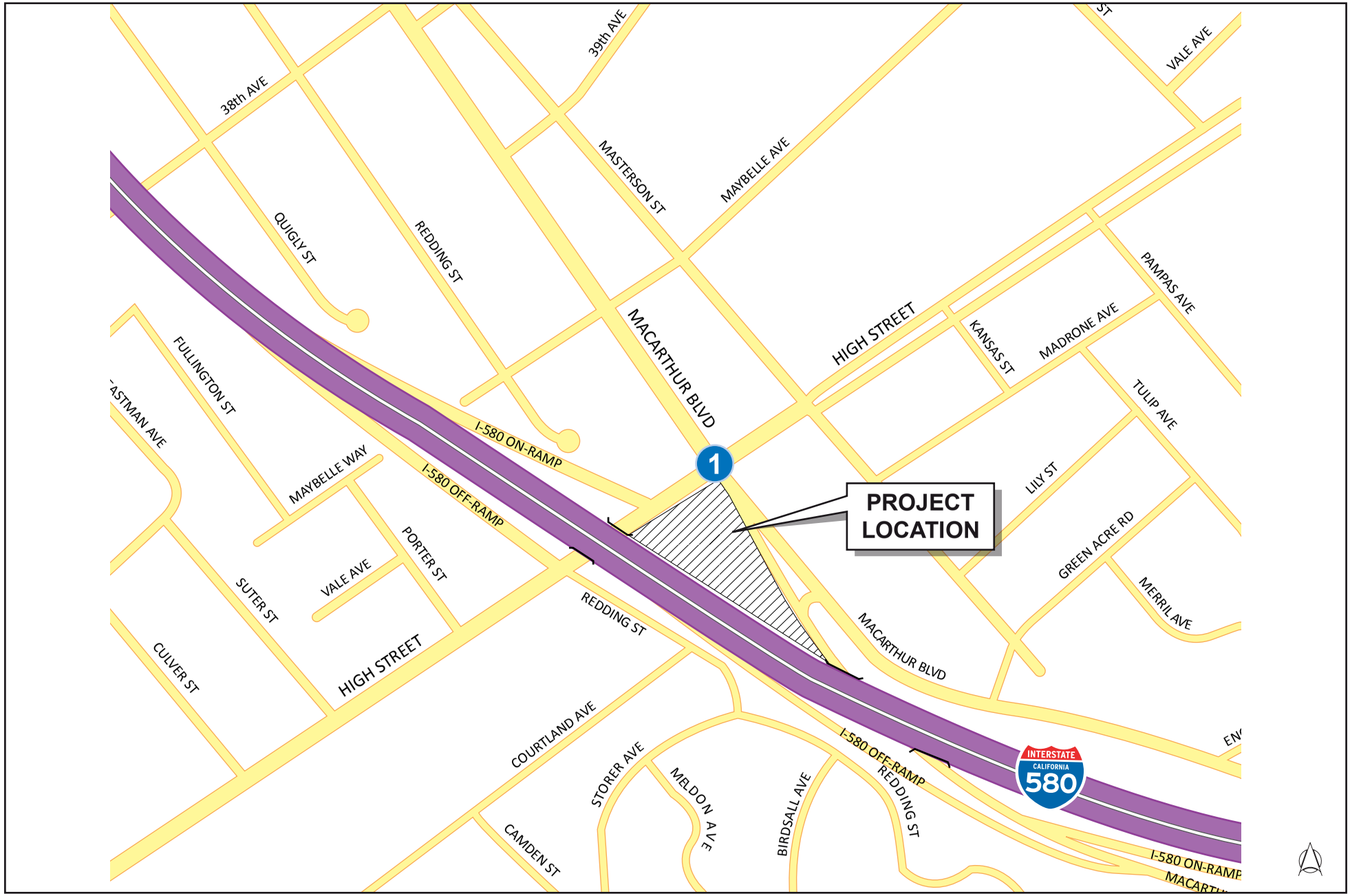
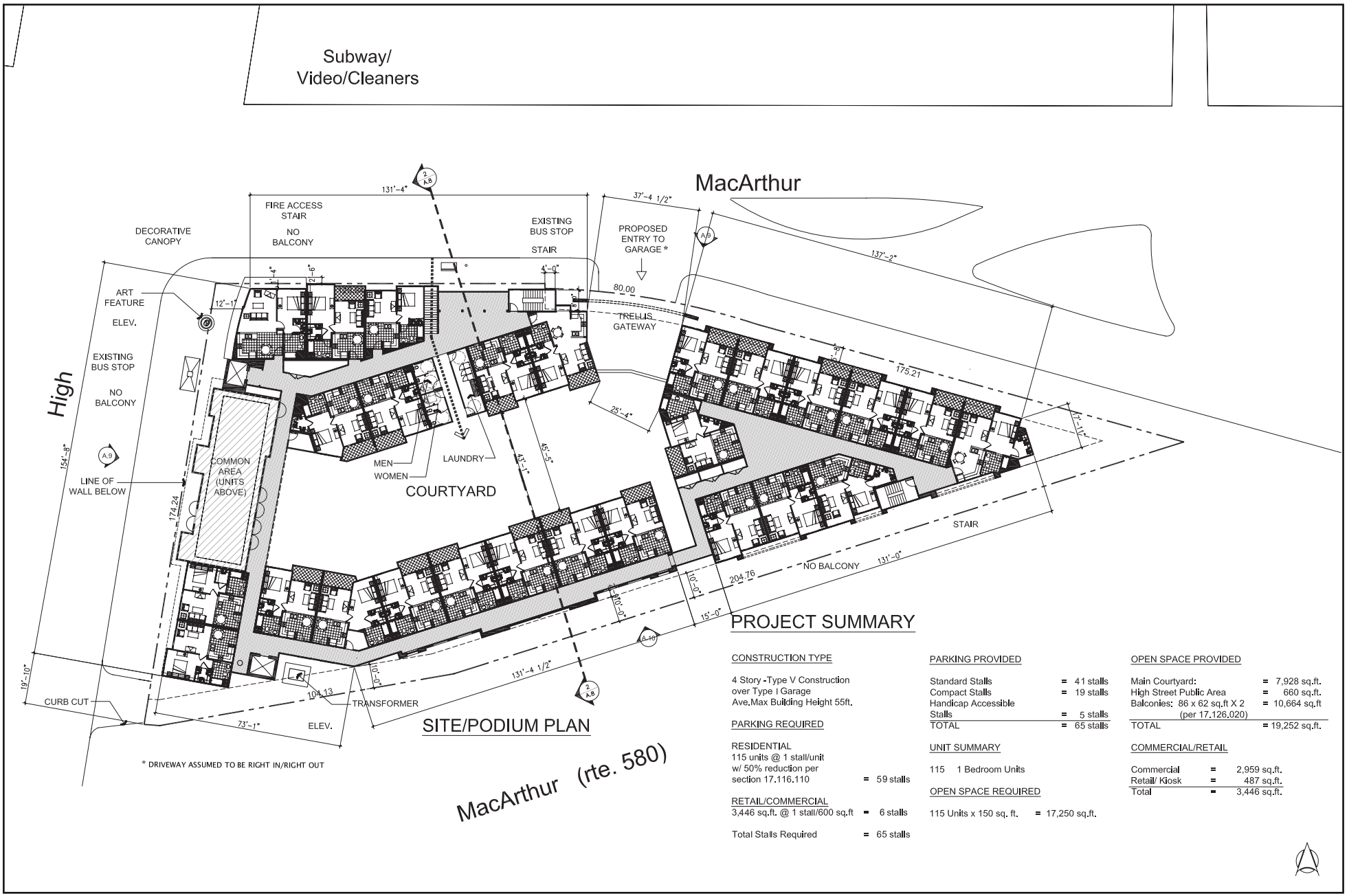


Figure created by Abrams Associates Traffic Engineering

Figure 4d-1
High & MacArthur Mixed-Use Senior Housing Project EIR
Project Location and Study Intersection



PROJECT SUMMARY

CONSTRUCTION TYPE

4 Story -Type V Construction
over Type I Garage
Ave.Max Building Height 55ft.

PARKING REQUIRED

RESIDENTIAL
115 units @ 1 stall/unit
w/ 50% reduction per
section 17.116.110 = 59 stalls

RETAIL/COMMERCIAL
3,446 sq.ft. @ 1 stall/600 sq.ft = 6 stalls

Total Stalls Required = 65 stalls

PARKING PROVIDED

Standard Stalls	=	41 stalls
Compact Stalls	=	19 stalls
Handicap Accessible Stalls	=	5 stalls
TOTAL	=	65 stalls

UNIT SUMMARY

115 1 Bedroom Units

OPEN SPACE REQUIRED

115 Units x 150 sq. ft. = 17,250 sq.ft.

OPEN SPACE PROVIDED

Main Courtyard:	=	7,928 sq.ft.
High Street Public Area	=	660 sq.ft.
Balconies: 86 x 62 sq.ft X 2 (per 17.126.020)	=	10,664 sq.ft
TOTAL	=	19,252 sq.ft.

COMMERCIAL/RETAIL

Commercial	=	2,959 sq.ft.
Retail/ Kiosk	=	487 sq.ft.
Total	=	3,446 sq.ft.

Figure created by Abrams Associates Traffic Engineering

Figure 4d-2
High & MacArthur Mixed-Use Senior Housing Project EIR
Site Plan

- *MacArthur Boulevard* is a four-lane street that runs northwest to southeast. It is a very long street spanning from Beaumont Avenue to Seminary Avenue, when it turns into Camden Street.

(2) Existing Pedestrian Facilities

Pedestrian facilities are crosswalks, sidewalks, and pedestrian signals. The existing pedestrian facilities in the vicinity of the proposed project are sidewalks on all of the nearby streets with crosswalks at all signalized intersections. There are also crosswalks near the MacArthur Freeway Eastbound On-Ramp just east of the project that provide access to a pedestrian bridge over the freeway to Redding Street.

(3) Existing Bicycle Facilities

There are no bicycle lanes on High Street or MacArthur Boulevard However, according to the Oakland Bicycle Master Plan, there are proposed planned improvements at High Street and MacArthur Boulevard There is a plan to install a Class 3 bicycle route on High Street and a Class 2 bicycle lane on MacArthur Boulevard within the project study area.[3]

(4) Existing Transit Service

AC Transit provides bus service on High Street and MacArthur Boulevard. There are eight AC Transit routes that stop at the intersection of High Street and MacArthur Boulevard. These are routes 14, 57, 58L, NL, 805, NX, NX2, and NX3. Route 14 runs from 12th Street BART Station to the Fruitvale BART Station and stops at High Street and MacArthur Boulevard approximately every 30 minutes or less between approximately 6:30 am and 10:30 pm on weekdays. Route 57 runs from Foothill Square to San Pablo Avenue and 40th Street and stops about every 30 minutes or less between approximately 6:00 am and 12:30 am. Route 58L also stops with the same frequency and runs from the Oakland Amtrak Station to the Eastmont Transit Center between the hours of 7:30 am to 7:30 pm. Route NL is a Transbay line that runs between Eastmont Transit Center and the Transbay Temporary Terminal in San Francisco. This line stops about every 30 minutes and operates between 6:06 am and 12:47 am on weekdays. Route 805 is an "all-nighter" route (approximately midnight to 5 am) that operates primarily along MacArthur Boulevard and Grand Avenue to Downtown Oakland. Lines NX, NX2, and NX3 are Transbay routes that provide weekday commute hour freeway express service to San Francisco. With the adjacent bus stops the AC Transit system would be very convenient for the residents of this project, as well as for the employees.

[3] City of Oakland, 2007. *City of Oakland Master Plan*, December.

(5) Existing Parking Characteristics

There is currently no parking in the vicinity of the proposed project except for on-street parking on High Street, northeast of the study intersection. There is a small parking lot on the north side of MacArthur Boulevard across the street from the project but it is designated for the existing small retail stores. Figure IV.D-3 shows the parking plan for the project.

(6) Existing Conditions, Intersection Configurations, Control and Traffic Volumes

AM and PM Peak hour turning movement counts were conducted at the one (1) intersection in May of 2010. Figure IV.D-4 presents the existing lane configurations and existing traffic volumes at the one intersection. Table IV.D-2 summarizes the associated level of service computation results for the existing weekday AM and PM Peak hour.

(7) Existing Conditions Intersection Analysis

As shown in Table IV.D-2, the study intersection currently operates at unacceptable conditions (LOS F) during the weekday AM peak hour.

d. Planned Improvements

There are no significant planned roadway improvements in the project study area at the time this analysis was prepared.[4] However, it should be noted that as part of a Citywide resurfacing project (which is planned and funded) the segment of MacArthur Boulevard adjacent to the project is planned to be resurfaced and re-striped with a bike lane along the project frontage as well as some changes to the centerline. The resurfacing project does not impact the number of traffic lanes. The plan for the re-striping was provided by the City and carefully reviewed for consistency with the proposed project. With or without the proposed resurfacing and restriping, the proposed vehicle entrance on MacArthur Boulevard would have sufficient sight distance to allow for adequate visibility between bicyclists and motorists and no impacts are anticipated.

e. Applicable Plans and Regulations

A description of the local policies that relate to transportation and circulation is provided below.

[4] Peter Chun, Transportation Services Division, City of Oakland. Personal communication with Abrams Associates Traffic Engineers. July 26, 2010.

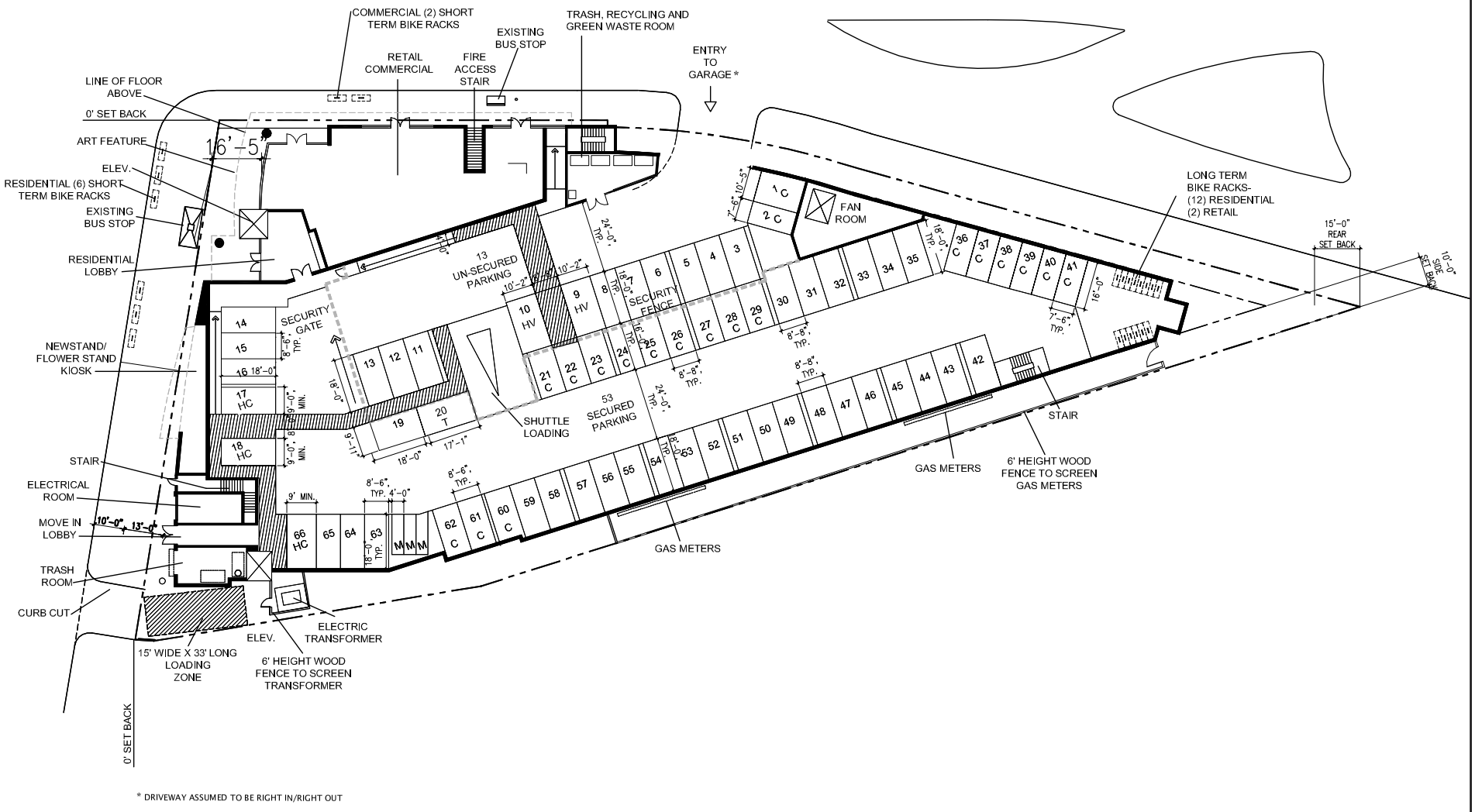


Figure created by Abrams Associates Traffic Engineering

Figure 4d-3
High & MacArthur Mixed-Use Senior Housing Project EIR
Parking Plan

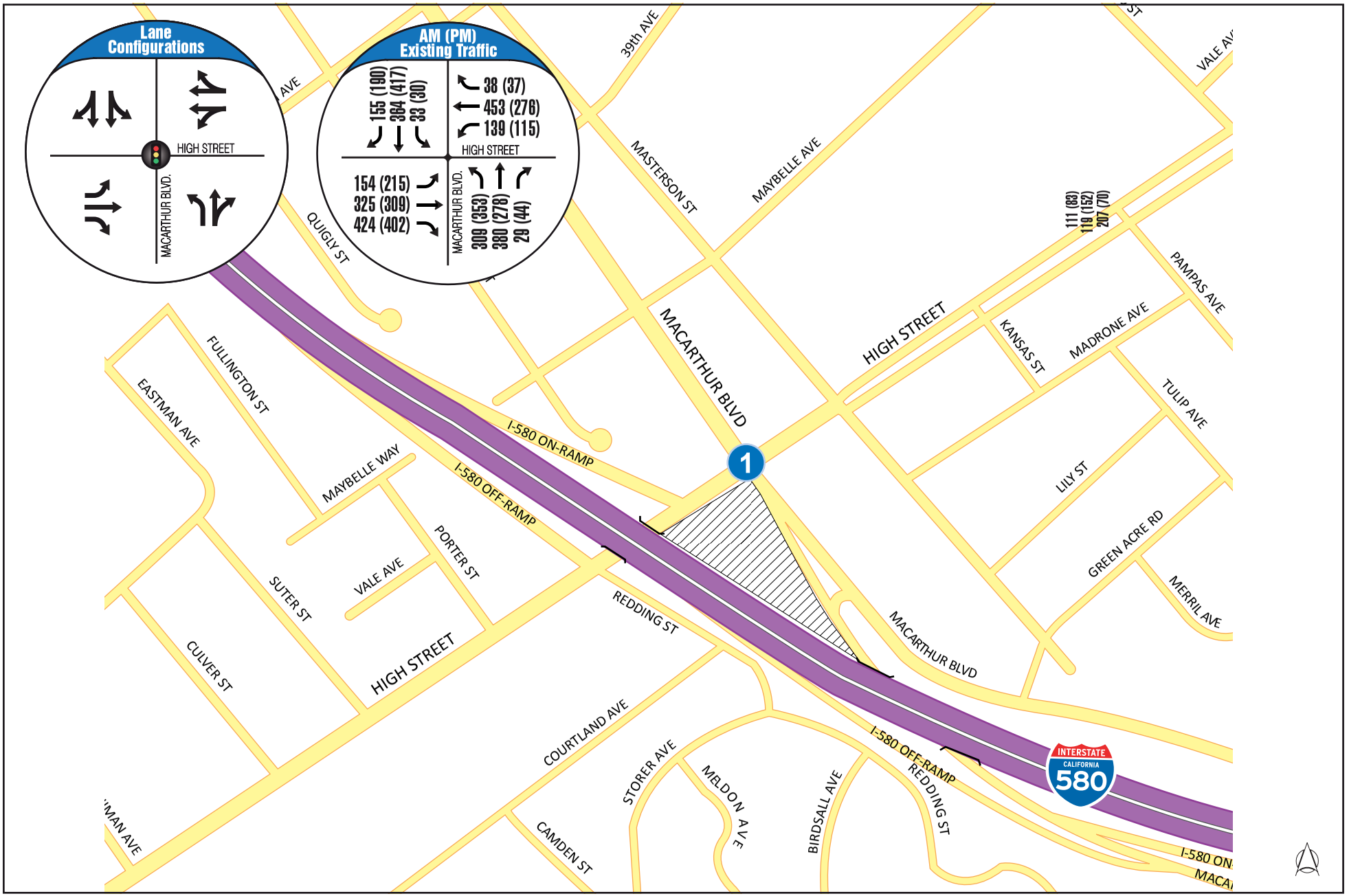


Figure created by Abrams Associates Traffic Engineering

Figure 4d-4
High & MacArthur Mixed-Use Senior Housing Project EIR
Lane Configurations, Existing AM (PM) Peak Hour Volumes

TABLE IV.D-2 EXISTING INTERSECTION OPERATIONS

			Existing Conditions			
Intersection	Control	Peak Hour	Delay (sec)	Overall V/C	LOS	Critical V/C
High Street and MacArthur Boulevard	Traffic Signal	AM	60.3	0.89	E	0.99
		PM	60.8	0.86	E	0.94

Source: Abrams Associates, 2012.

(1) City of Oakland General Plan

The Land Use and Transportation Element (LUTE) of the City of Oakland's General Plan includes the following relevant policies:

- Policy T2: Encouraging Transit-Oriented Development. 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. Discussion of the vision of each of Oakland's BART Stations is discussed on the next pages.
- Policy T3.5: Including Bikeways and Pedestrian Walks. The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible.
- Policy T4.1: Incorporating Design Features for Alternative Travel. 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.

(2) Bicycle Master Plan

Relevant policies from the Bicycle Master Plan include:

- BMP Policy 1A: Work to develop and improve Oakland's bikeway network.
- BMP Policy 1B: Routine Accommodation. Address bicycle safety and access in the design and maintenance of all streets.
- BMP Policy 1C: Safe Routes to Transit. Improve bicycle access to transit, bicycle parking at transit facilities, and bicycle access on transit vehicles.
- BMP Policy 1D: Parking and Support Facilities. Promote secure and conveniently located bicycle parking at destinations throughout Oakland.
- BMP Policy 3B: Project Development. Prioritize and design bicycle projects in cooperation with key stakeholders.

(3) City of Oakland Pedestrian Master Plan. The Pedestrian Master Plan (PMP) identifies policies and actions that promote a walkable city. The PMP includes the following relevant policies and actions:

- PMP Policy 1.2: Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections.
- PMP Policy 2.1: Create and maintain a pedestrian route network that provides direct connections between activity centers.
- Action 2.1.1: Improve existing connections across/under freeways to activity centers using lighting, acoustics, and other design features.
- Action 2.1.4: Avoid the use of pedestrian overpasses and underpasses for pedestrian crossings on surface streets.
- PMP Policy 2.3: Implement pedestrian improvements along major AC Transit lines and at BART stations to strengthen connections to transit.
- PMP Policy 3.2: Promote land uses and site designs that make walking convenient and enjoyable.
- Action 3.2.4: Require contractors to provide safe, convenient, and accessible pedestrian rights-of-way along construction sites that require sidewalk closure.

(4) City of Oakland Transit First Policy

In October 1996, the City adopted what is known as the "Transit First" Policy, a resolution which supports public transit and other alternatives to single occupant vehicles. It directs the LUTE to incorporate "various methods of expediting transit services on designated streets, and encouraging greater transit use."

f. City of Oakland Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to transportation and circulation are listed below for reference. The Standard Conditions of Approval would be adopted as requirements of the proposed project if the project is approved by the City to help ensure no significant impacts for transportation and circulation occur; as a result they are not listed as mitigation measures.

SCA TRANS-1: Parking and Transportation Demand Management. *Prior to issuance of a final inspection of the building permit.*
The applicant shall submit for review and approval by the Planning and Zoning Division a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The applicant shall implement the approved TDM plan. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel shall be considered. Strategies to consider include the following:

a) Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement.
b) Construction of bike lanes per the Bicycle Master Plan; Priority Bikeway Projects.
c) Signage and striping onsite to encourage bike safety.
d) Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count down signals, bulb outs, etc.) to encourage. convenient crossing at arterials.
e) Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.
f) Direct transit sales or subsidized transit passes.
g) Guaranteed ride home program.
h) Pre-tax commuter benefits (checks).
i) On-site car-sharing program (such as City Car Share, Zip Car, etc.).
j) On-site carpooling program.
k) Distribution of information concerning alternative transportation options.
l) Parking spaces sold/leased separately.
m) Parking management strategies; including attendant/valet parking and shared parking spaces.

SCA TRANS-2: Construction Traffic and Parking. *Prior to the issuance of a demolition, grading or building permit.*
The project applicant and construction contractor shall meet with 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 also be submitted to AC Transit for review and comment. The plan shall include at least the following items and requirements:

a) 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. Traffic analysis will be necessary to determine the hours of operation for construction traffic control as part of the construction management plan.
b) Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
c) Location of construction staging areas for materials, equipment, and vehicles at an approved location.
d) A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.
e) Provision for accommodation of pedestrian flow.

f) Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.

g) Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the applicant's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and/or photo documentation, at the applicant's expense, before the issuance of a Certificate of Occupancy.

h) Any heavy equipment brought to the construction site shall be transported by truck, where feasible.

i) No materials or equipment shall be stored on the traveled roadway at any time.

j) Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion.

k) All equipment shall be equipped with mufflers.

l) Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.

2. Impacts, Standard Conditions of Approval, and Mitigation Measures

This section discusses potential impacts to transportation and traffic that could result from implementation of the project. The section begins with the significance criteria, which establish the thresholds used to determine whether an impact is significant. The latter part of this section presents the impacts associated with the project and identifies necessary Standard Conditions of Approval and mitigation measures, as appropriate.

a. Criteria of Significance

Based on the City of Oakland's significance criteria the project would have a significant impact on the environment if it would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Significant impacts are identified according to the significance criteria listed below.

Traffic Load and Capacity Thresholds[5]

1. At a study, signalized intersection which is located **outside the Downtown**[6] area, the project would cause the level of service to degrade to worse than LOS D (i.e., LOS E).
2. At a study, signalized intersection which is located **within the Downtown** area, the project would cause the level of service to degrade to worse than LOS E (i.e., LOS F).
3. At a study, signalized intersection **outside the Downtown** area where the level of service is LOS E, the project would 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).
4. At a study, signalized intersection for **all areas** where the level of service is LOS E, the project would 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).
5. At a study, signalized intersection for **all areas** where the level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.01 or more, or (b) the critical movement V/C ratio to increase 0.02 or more.
6. At a study, unsignalized intersection for **all areas**, the project would add 10 or more vehicles and after project completion would satisfy the Caltrans peak hour volume traffic signal warrant.
7. For a roadway segment of the Congestion Management Program (CMP) Network,[7] the project would cause (a) the level of service to degrade from LOS E or better to LOS F, or (b) the V/C ratio[8] to increase 0.03 or more for a roadway segment that would operate at LOS F without the project.

[5] All level of service calculations shall be based on the methodologies in the 2000 *Highway Capacity Manual.*

[6] Downtown is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded 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.

[7] A CMP Land Use Analysis is only required if a land use development project involves either (a) a general plan amendment that would generate 100 or more peak hour trips above the current general plan land use designation, or (b) an EIR for a project that would generate 100 or more peak hour trips above the existing condition. The Alameda County Transportation Commission (formerly the Alameda County Congestion Management Agency) will identify the roadway segments of the Metropolitan Transportation System that require evaluation in its letter commenting on the Notice of Preparation issued for the project.

[8] Density (vehicles per mile per lane), the primary indicator of LOS for peak hour freeway segments and ramp merge/diverge areas, cannot be measured accurately under peak hour LOS F conditions, and V/C ratio is a secondary (quantifiable)

8. Cause congestion of regional significance on a roadway segment of the Metropolitan Transportation System evaluated per the requirements of the Land Use Analysis Program of the CMP. Factors to consider in evaluating the potential impact include, but are not limited to, the relationship between the project and planned improvements in the Countywide Transportation Plan, the project's consistency with City policies concerning infill and transit-oriented development, the proximity of the project to other jurisdictions, and the magnitude of the project's contribution based on V/C ratios.
9. Result in substantially increased travel times for AC Transit buses. Factors to consider in evaluating the potential impact include, but are not limited to, the proximity of the project site to the transit corridor(s), the function of the roadway segment(s), and the characteristics of the potentially affected bus route(s). The evaluation may require a qualitative and/or quantitative analysis depending upon these relevant factors.

Traffic Safety Thresholds

10. Directly or indirectly cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses**.** Factors to consider in evaluating the potential impact to roadway users due to physical design features and incompatible uses include, but are not limited to, collision history and the adequacy of existing traffic controls.
11. Directly or indirectly result in a permanent substantial decrease in pedestrian safety. Note: Consider whether factors related to pedestrian safety such as, but not limited to, the following are substantial in nature:
    - Degradation of existing pedestrian facilities, including the following:
        - Removal of existing pedestrian refuge islands and/or bulbouts.
        - Increase of street crossing distance.
        - Permanent removal or significant narrowing of an existing sidewalk, path, crossing, or pedestrian access way.
        - Increase in pedestrian or vehicle volume at unsignalized or uncontrolled intersections.
        - Sidewalk crowding.
        - Addition of new vehicle travel lanes and/or turn lanes.

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measurement that is used to judge differences in operating conditions with different traffic volumes for the peak hour.

  - Permanent removal of existing sidewalk-street buffering elements (e.g., on-street parking lane, planting strip, street trees).
- Addition of vehicle driveway entrance(s) that degrade pedestrian safety, with considerations given to the following:
  - Number of proposed vehicle driveway entrances.
  - Location of proposed vehicle driveway entrance(s).
  - Visibility between pedestrians on the sidewalk and motorists using the proposed vehicle driveway entrance(s).

12. Directly or indirectly result in a permanent substantial decrease in bicyclist safety. Note: Consider whether factors related to bicyclist safety such as, but not limited to, the following are substantial in nature:
    - Removal or degradation of existing bikeways.
    - Addition of new vehicle travel lanes and/or turn lanes.
    - Addition of vehicle driveway entrances(s) that degrade(s) bicycle safety, with consideration given to the following:
      - Number of proposed vehicle driveway entrances.
      - Location of proposed vehicle driveway entrance(s).
      - Visibility between bicyclists on travelway and motorists using the proposed vehicle driveway entrance(s).
13. Directly or indirectly result in a permanent substantial decrease in bus rider safety. Note: Consider whether factors related to bus rider safety such as, but not limited to, the following are substantial in nature:
    - Removal or degradation of existing bus facilities.
    - Siting of bus stops in locations without crossings, with insufficient sidewalks, or in isolated or unlit areas.
    - Addition of new bus riders that create crowding at a bus stop or on the bus.
14. Generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users (e.g. motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard. Note: If the project will generate substantial multi-modal traffic across an at-grade railroad crossing, a Diagnostic Review will be required in consultation with the California Public Utilities Commission. The Review should include roadway and rail descriptions, collision history, traffic volumes for all modes, train volumes, vehicular speeds, train speeds, and existing rail and traffic controls.

Other Thresholds

15. Fundamentally conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. Note: Factors to consider in evaluating the potential conflict include, but are not limited to, the following:

    - Does the project prevent or otherwise substantially adversely affect the future installation of a planned transportation improvement identified in an adopted City policy, plan, or program?
    - Does the project fundamentally conflict with the applicable goals, policies, and/or actions identified in an adopted City policy, plan, or program? Adopted City policies, plans, and programs to consider include, but are not limited to, the following:
        - Land Use and Transportation Element (LUTE) of the General Plan (March 1998)
        - Pedestrian Master Plan (November 2002)
        - Bicycle Master Plan (December 2007)
        - Public Transit and Alternative Modes Policy (formerly known as the "Transit-First Policy"[9] City Council Resolution 73036 C.M.S.)
        - Sustainable Development Initiative (City Council Resolution 74678 C.M.S.)
        - U.N. Environmental Accords (City Council Resolution 79808 C.M.S) http://clerkwebsvr1.oaklandnet.com/attachments/13321.pdf
        - Capital Improvement Program

16. Result in a substantial, though temporary, adverse effect on the circulation system during construction of the project; or

17. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Cumulative Impacts

18. A project's contribution to cumulative impacts is considered "considerable" (i.e. significant) when the project exceeds at least one of the thresholds listed above under a future year scenario.

[9] The Public Transit and Alternative Modes Policy is sometimes referred to as the "Transit-First Policy." City staff recommends using the term "Public Transit and Alternative Modes Policy" instead of the term "Transit-First Policy" because the policy relates to more than transit.

(1) Planning-Related Non-CEQA Issues

The following transportation-related topics are not considerations under CEQA but should be evaluated in order to inform decision-makers and the public about these issues.

Parking

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. Similarly, the December 2009 amendments to the State CEQA Guidelines (which became effective March 18, 2010) removed parking from the State's Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. 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 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 as a non-CEQA topic for informational purposes.

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 alternative modes of travel would be in keeping with the City's Public Transit and Alternative Modes Policy (sometimes referred to as the "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. 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 document evaluates if 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 Redevelopment Agency owned/controlled parking, and/or legally required off-street parking (non-open-to-the-public parking which is legally required).

Transit Ridership

Transit load is not part of the permanent physical environment; transit service changes over time as people change their travel patterns. Therefore, the effect of the proposed project on transit ridership need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects, such as causing the construction of new permanent transit facilities which in turn causes physical effects on the environment. Furthermore, an increase in transit ridership is an environmental benefit, not an adverse impact. One of the goals of the Land Use and Transportation Element of the Oakland General Plan is to promote transit ridership. The City of Oakland, however, in its review of the proposed project, wants to understand the project's potential effect on transit ridership. As such, although not required by CEQA, transit ridership is evaluated in this document as a non-CEQA topic for informational purposes.

This document evaluates whether the project would exceed any of the following:

- Increase the average ridership on AC Transit lines by three (3) percent at bus stops where the average load factor with the project in place would exceed 125 percent over a peak thirty minute period;
- Increase the peak hour average ridership on BART by three (3) percent where the passenger volume would exceed the standing capacity of BART trains; or
- Increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates would exceed one minute.

Queuing

Evaluate the project's potential effect on 95th percentile queuing. Would the project cause an increase in 95th percentile queue length of 25 feet or more at a study, signalized intersection under the Existing Plus Project condition or the Near-Term Future Baseline Plus Project condition?

Traffic Control Devices
Evaluate the need for additional traffic control devices (e.g., stop signs, street lighting, crosswalks, traffic calming devices) using the California MUTCD and applicable City standards.

Collision History
Evaluate three years of vehicle, pedestrian, and bicycle collision data for intersections and roadway segments within three blocks of the project site to determine if the project would contribute to an existing problem or if any improvements are recommended in order to alleviate potential effects of the project.

b. Less-than-Significant Transportation Impacts

The less-than-significant transportation impacts that would result from implementation of the proposed project are described below.

(1) Traffic Load Capacity (criteria 1-8 and 18)

The project's impacts on traffic load capacity at the subject intersection of High Street and MacArthur Boulevard is discussed below using trip generation and trip distribution of the proposed project.

Trip Generation
Traffic created by the proposed project has been added to the "No Project" scenarios described below to determine the potential impacts of the project. Trip generation for development projects is typically calculated based on rates contained in the Institute of Transportation Engineer's (ITE) publication, *Trip Generation 8th Edition*, a standard reference used by jurisdictions throughout the country for the estimation of potential vehicular trips from proposed developments. A summary of the project's trip generation characteristics is shown in Table IV.D-3.

The proposed project includes two different land use components that would generate trips. The components and associated ITE generation categories assumed for each in this analysis are listed below:

- Senior Housing (ITE Land Use Code 252)—115 Units
- Specialty Retail (ITE Land Use Code 814)—3,446 Square Feet of Commercial Space

A "trip" is defined in ITE's *Trip Generation* publication as a single or one-directional vehicular movement with either the origin or destination at the project site. As a result, a trip can be either "to" or "from" the site.

TABLE IV.D-3 PROJECT ITE TRIP GENERATION (TRIPS PER UNIT)

Development	Daily Trips	AM Peak Hour (8:00-9:00 am)			PM Peak Hour (5:00-6:00 pm)		
		In	Out	Total	In	Out	Total
Senior Housing (ITE Code 252)	3.48	0.05	0.08	0.13	0.10	0.06	0.16
Trip Generation from 115 Senior Housing Units	400	6	9	15	12	7	19
Specialty Retail (ITE Code 814)	44.3	3.28	3.56	6.84	2.26	2.73	5.02
Trip Generation from 3,446 sq. ft.	153	11	12	23	8	10	18
Reduction for Pass-By/Non-Auto Trips (34%)	52	4	4	8	3	3	6
Net New Retail Trips	101	7	8	15	5	6	11
Totals	**501**	**13**	**17**	**30**	**17**	**14**	**31**

Source: Abrams Associates, 2012.

Consistently, a single customer visit to a site is counted as two trips (i.e. one to and one from the site.)

For purposes of determining the reasonable worst-case project impacts on the surrounding street network, trip generation is typically estimated for the peak weekday traffic hours – i.e., between the hours of 8:00 to 9:00 am and 5:00 to 6:00 pm While a particular individual land use may generate more traffic during some other time of day, the peak of "adjacent street traffic" represents the time period when the land use will generally contribute to the greatest amount of congestion.

Trip Distribution

The trip distribution assumptions developed in this analysis are based on the project's proximity to freeway interchanges, existing traffic conditions, and existing land use patterns in the area. Figure IV.D-5 shows the estimated AM and PM Peak hour trips generated by the proposed project at the study intersection.

Existing Plus Project Intersection Operations

The capacity calculations for the conditions where the project has been implemented are shown in Table IV.D-4. There are currently no significant roadway changes planned as part of this development (see discussion on Site Access and Circulation under subsection (2) Safety regarding the citywide

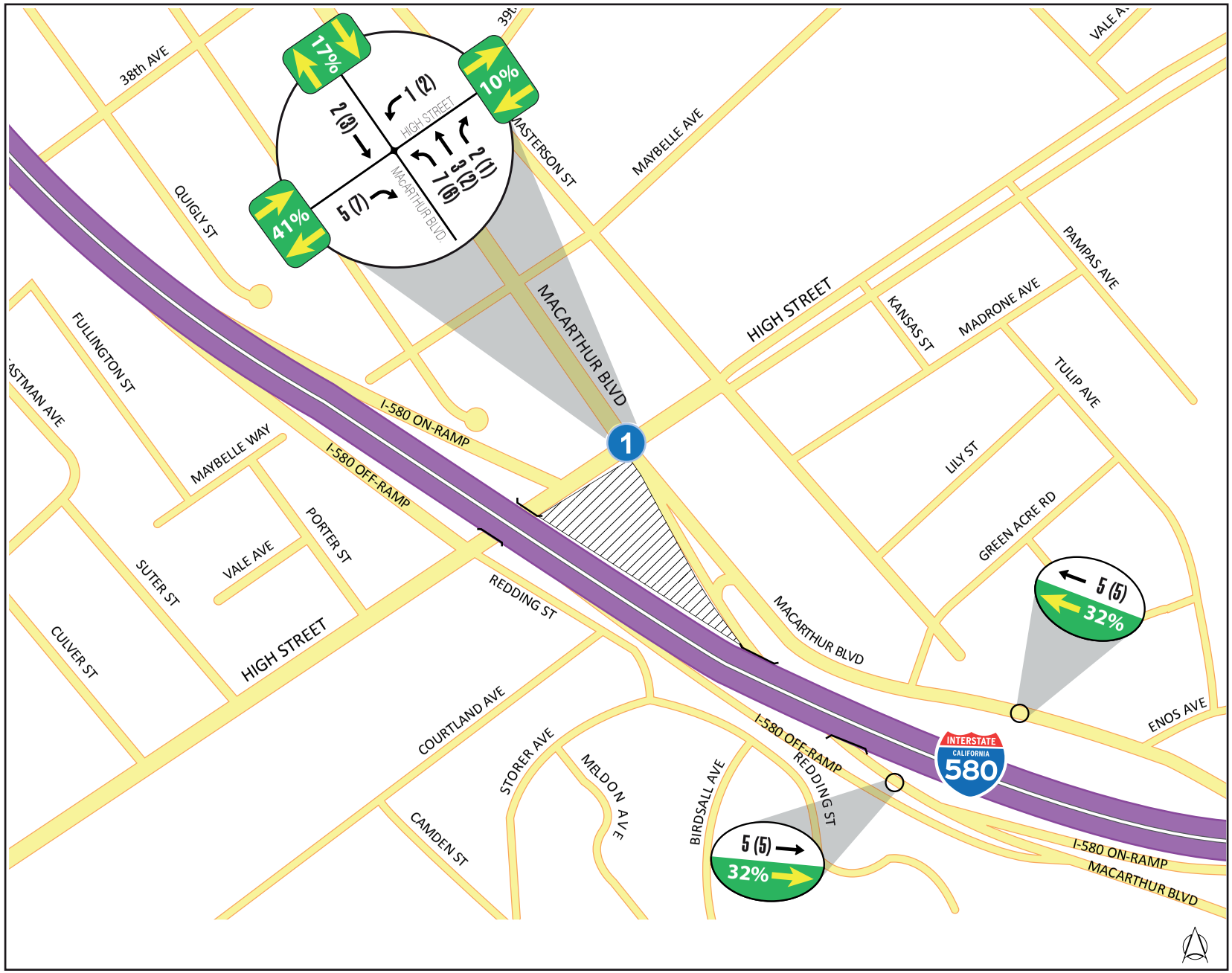


Figure created by Abrams Associates Traffic Engineering

Figure IVd-5
High & MacArthur Mixed-Use Senior Housing Project EIR
Project Trip Generation AM (PM) Peak Hour

TABLE IV.D-4 EXISTING PLUS PROJECT INTERSECTION OPERATIONS

			Existing/Existing Plus Project			
Intersection	Control	Peak Hour	Delay (sec)	Overall V/C	LOS	Critical V/C[a]
High Street and MacArthur Boulevard	Traffic Signal	AM	60.3/60.6	0.89/0.89	E/E	0.99/0.99
		PM	60.8/61.1	0.86/0.86	E/E	1.03/1.03

Source: Abrams Associates, 2012.

resurfacing project). As shown in Table IV.D-4, with the addition of traffic from the project the intersection of High Street/MacArthur Boulevard will continue to operate at LOS E during the AM Peak hour. The project contribution would result in a maximum delay increase of 1.8 seconds in the Existing Plus Project PM peak hour scenario which is under the City's threshold of 4 seconds of delay. Therefore, the additional traffic added at this congested intersection would not be considered a significant impact under City standards. The complete level of service calculations are included in Appendix C.

Near-Term (Year 2015) No Project Conditions Intersection Analysis

The traffic volumes for the Near-Term (Year 2015) were assessed using the latest Alameda County Transportation Commission's Countywide Travel Demand Model, which was most recently updated in June of 2010. This scenario includes projections of the background conditions in the study area that would not involve the construction of the proposed project (but take into account the expected increases in traffic). For purposes of this EIR transportation analysis, the "Near-Term (Year 2015)" represents the background level-of-service at the study intersection for the existing condition plus some growth in background traffic for the year 2015. Projected intersection turning movement volumes for 2015 without project conditions are shown in Figure IV.D-6. The results of the associated level of service computations are presented in Table IV.D-5. The detailed level of service calculation sheets for each study intersection are presented in Appendix C.

Table IV.D-5 indicates that, under 2015 baseline conditions (without the project), the study intersection would operate at LOS F during AM and PM peak hour, which exceeds acceptable level of service standards, regardless of whether or not the proposed High Street Senior Housing Project is implemented.

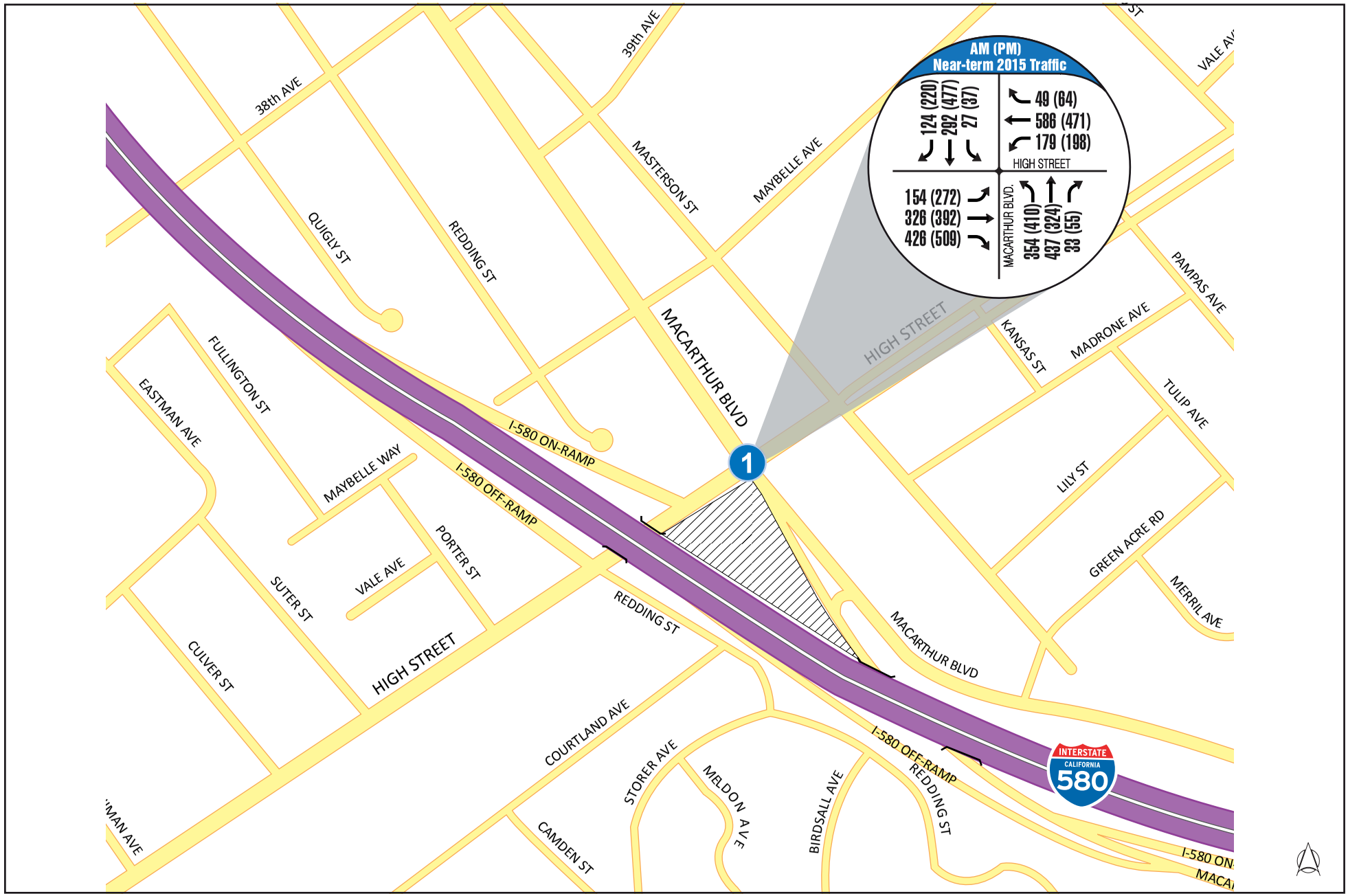


Figure created by Abrams Associates Traffic Engineering

Figure 4d-6
High & MacArthur Mixed-Use Senior Housing Project EIR
Near-term (2015) AM (PM) Volume

TABLE IV.D-5 NEAR-TERM (2015) INTERSECTION OPERATIONS

		2015 No Project/2015 Plus Project			
Intersection	**Control**	**Peak Hour**	**Overall V/C[a]**	**LOS**	**Critical V/C**
High Street and MacArthur Boulevard	Traffic Signal	AM	0.99/0.99	F/F	1.28/1.28
		PM	1.14/1.15	F/F	1.22/1.22

[a] Please note that the volume to capacity ratio values are rounded to two decimals and the actual project increase to the volume to capacity ratio is less than 0.01.
Source: Abrams Associates, 2012.

Near-Term (2015) Plus Project Intersection Operations

The capacity calculations for the conditions both with and without the project are shown in Table IV.D-5. Figure IV.D-7 shows the estimated AM and PM peak hour volumes under near-term plus project conditions. It is assumed that there are no roadway changes to be implemented as part of this development. As shown in Table IV.D-5, with the addition of traffic from the project and other approved developments, the intersection of High Street/MacArthur Boulevard will continue to operate at LOS F during the AM and PM peak hour. The project's contribution would increase the overall volume to capacity ratio at this intersection by less than 0.01 and the critical movement volume to capacity ratio at this intersection would also increase by less than 0.02, which would be considered a less-than-significant impact under City standards.

Please note that the primary reason there are not significant impacts on traffic operations is due to the very low trip generation of senior housing. Based on studies of trip generation surveys taken at over 30 different senior housing projects it has been proven that the trip generation for senior housing is "*one-half to one-fourth that of other residential land-uses.*"[10] The surveys showed that "*Trip generation rates during the peak hour of adjacent street traffic are significantly less because most employees arrive/depart during off-peak periods and residents avoid the peak-hour congestion. The peak hour rates are one-half to one-fourth that of other residential land-uses.*"

[10] Stephen B. Corcoran, Metro Transportation Group, Hannover Park, IL, 1996. *Senior Housing Trip Generation and Parking Characteristics*.

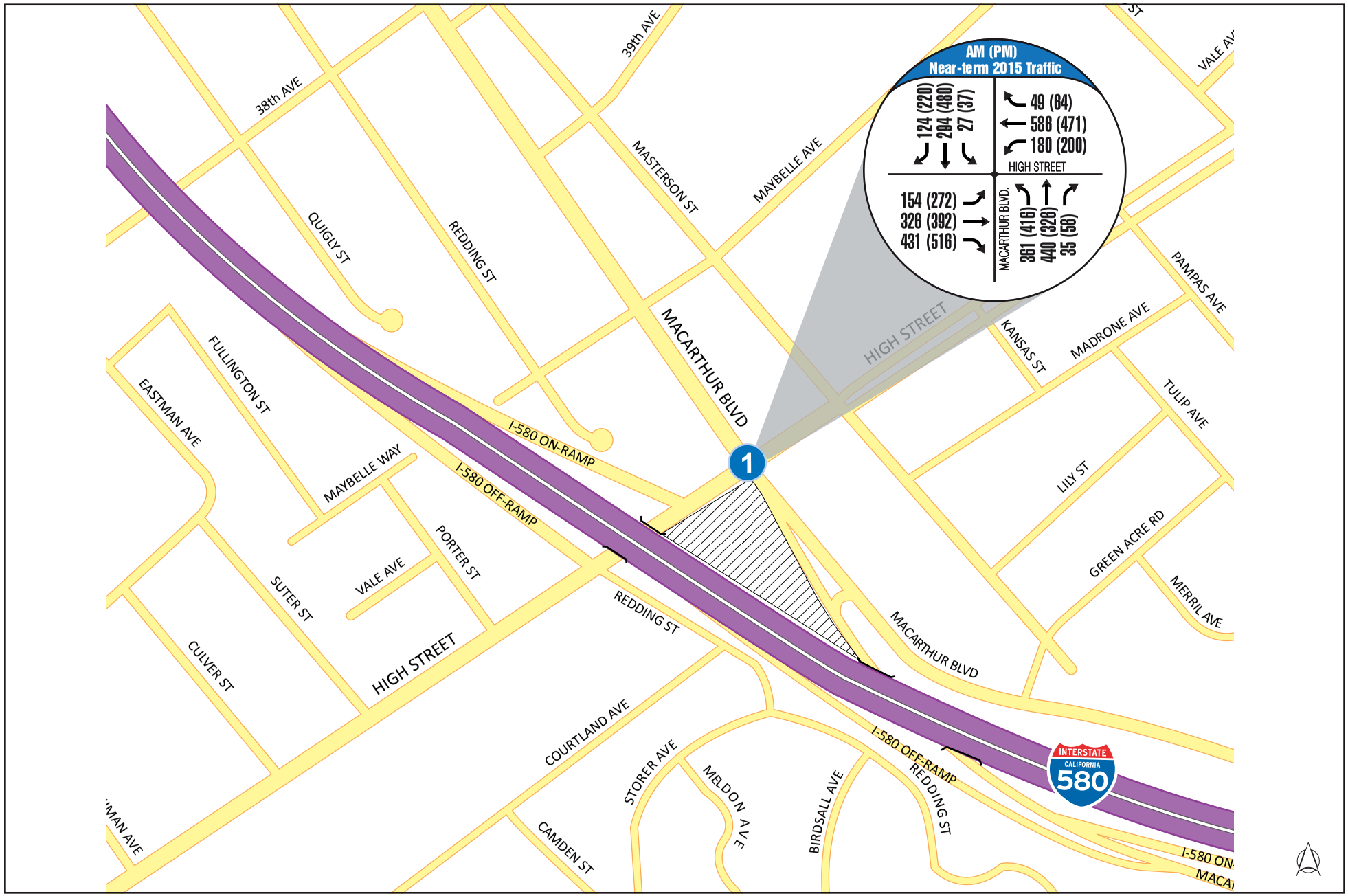


Figure created by Abrams Associates Traffic Engineering

Figure 4d-7
High & MacArthur Mixed-Use Senior Housing Project EIR
Near-term (2015) Plus Project AM (PM) Volumes

The adjacent intersection of High Street and MacArthur Boulevard currently carries approximately 3,000 vehicles per hour during the morning commute hours and about 3,500 vehicles per hour during the afternoon commute period. The proposed project would increase these traffic volumes by approximately 20 vehicles per hour. At this intersection the volume to capacity (V/C) ratios are roughly approximate to the changes in the volumes because there are no significant changes to the capacity (i.e., the number of lanes) anticipated. Given the low trip generation of the proposed senior housing and the substantial existing volumes the project is forecast to increase the overall intersection volumes by less than one percent and increases to the critical movement volumes would be less than two percent.

Cumulative (Year 2035) No Project Conditions Intersection Analysis

Like the Near-Term Scenario, the Cumulative 2035 Scenario traffic volumes were assessed using the latest Alameda County Transportation Commission's Countywide Travel Demand Model, which was most recently updated in June of 2010. This scenario includes projections of the background conditions in the study area that would not involve the construction of the proposed project (but take into account the expected increases in traffic). As shown in Table IV.D-6, the study intersection would operate at an unacceptable rating of LOS F during the AM and PM peak hours, regardless of the development of the High Street Senior Housing Project. Figure IV.D-8 presents the traffic volumes at the study intersection for the cumulative (Year 2035) no project conditions.

Cumulative (2035) Plus Project Intersection Operations

Figure IV.D-9 shows the estimated AM and PM Peak hour volumes under cumulative plus project conditions. The resulting levels of service for the "Cumulative plus Project" scenario are shown in Table IV.D-6. As seen in this table, the intersection continues to operate at LOS F. The project's contribution would increase the volume to capacity ratio at this intersection by less than 0.01 and the critical movement volume to capacity ratio at this intersection by no more than 0.02, which would be considered a less-than-significant impact under City standards.

Similar to the analysis provided for Near-Term (2015) Plus Project intersection operations, there are not significant impacts on traffic operations due to the very low trip generation of senior housing.

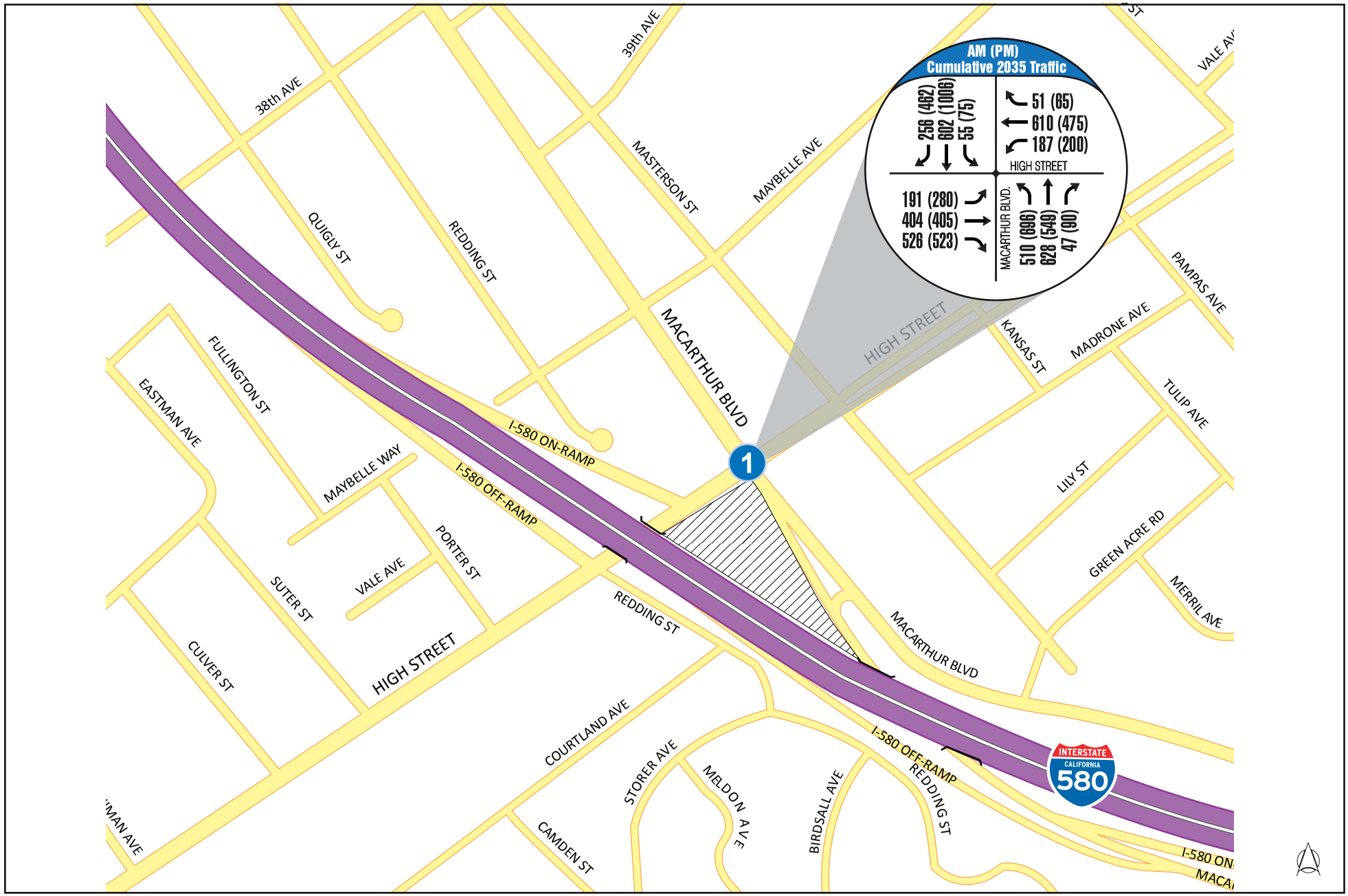


Figure created by Abrams Associates Traffic Engineering

Figure 4d-8
High & MacArthur Mixed-Use Senior Housing Project EIR
Cumulative (2035) AM (PM) Volumes

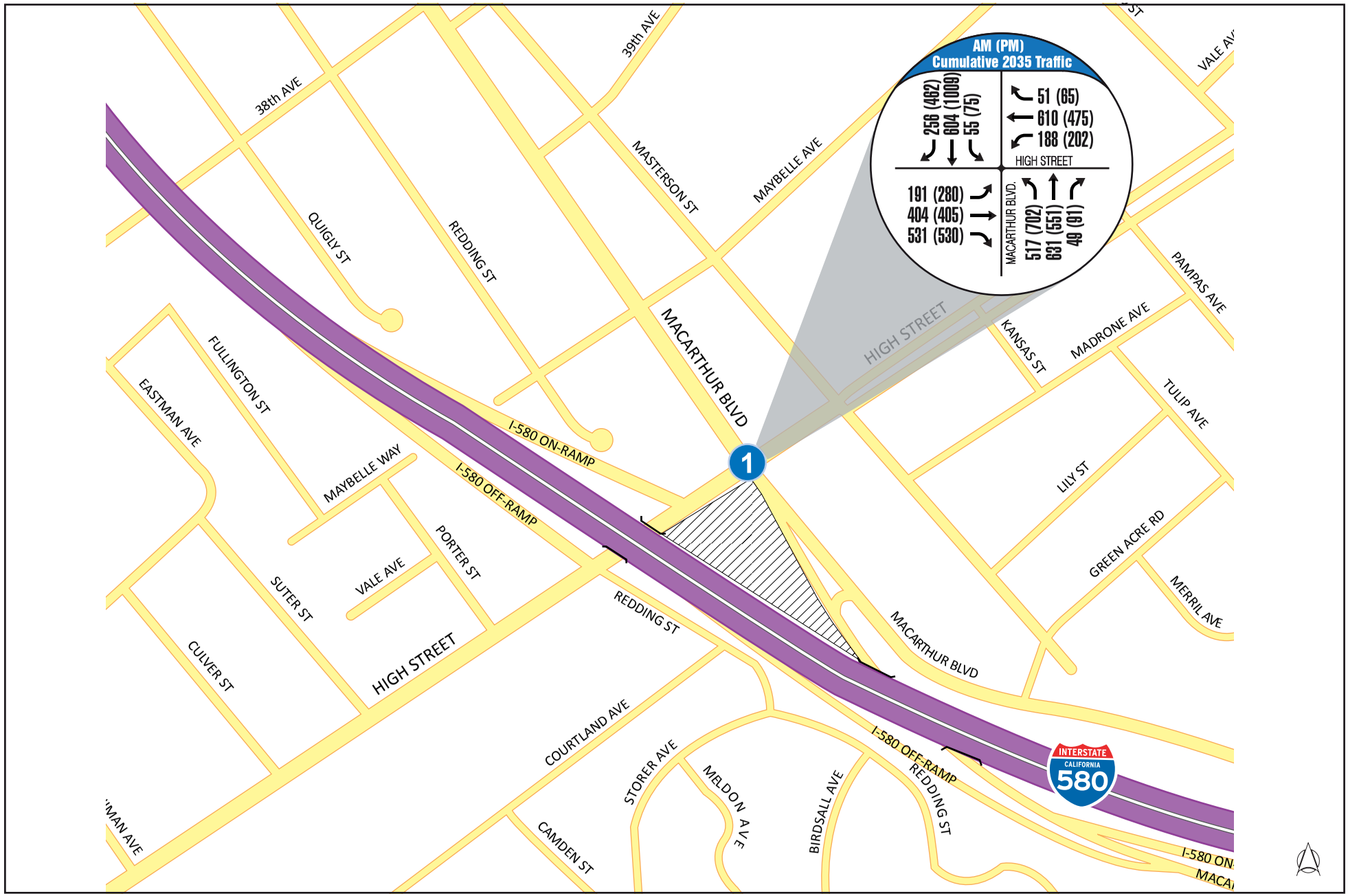


Figure created by Abrams Associates Traffic Engineering

Figure 4d-9
High & MacArthur Mixed-Use Senior Housing Project EIR
Cumulative (2035) Plus Project AM (PM) Volumes

TABLE IV.D-6 CUMULATIVE (2035) INTERSECTION OPERATIONS

			2035 Without Project/2035 Plus Project		
Intersection	Control	Peak Hour	Overall V/C [a]	LOS	Critical V/C
High Street and MacArthur Boulevard	Traffic Signal	AM	1.38/1.38	F/F	1.48/1.49
		PM	1.81/1.82	F/F	1.93/1.93

[a] Please note that the volume to capacity ratio values are rounded to two decimals and the actual project increase to the volume to capacity ratio is less than 0.01.
Source: Abrams Associates, 2012.

Roadway Segments

The Housing Element EIR evaluated the potential roadway impacts by analyzing roadway segments and identified a potentially significant impact along MacArthur Boulevard east of Lincoln Avenue (see Impact TR-31 listed above). This segment of MacArthur Boulevard carries approximately 2,500 vehicles per hour during the AM peak period and the proposed project would generate 30 trips during this period resulting in an increase of less than one percent on any segment of MacArthur Boulevard (which is well within daily fluctuations in traffic). As a result, the proposed project would not contribute to any significant impact on this roadway segment or any other segment in the area.

(1) Safety (Criteria 9-14 and 17)

Impacts related to transportation hazards and roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) are discussed below.

Site Access and Circulation Analysis (Criterion 10)

The proposed senior housing development would have one vehicle entrance on MacArthur Boulevard In general, the proposed site plan should function well from a circulation standpoint and would not cause any safety or operational problems. The project site design has been required to conform to City design standards and would not create any significant impacts to pedestrians, bicyclists, or traffic operations. There are no existing pedestrian facilities that would be degraded or permanently removed. Upon review of the site plan for truck access, all necessary truck turning movements could be accommodated from the proposed loading zone. As a Condition of Approval, the project would be restricted from allowing loading or unloading activities at this location during peak commute periods (7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM). In addition, vehicles in the loading area would be

restricted from blocking the sidewalk and will require a flagman for safety when backing in or out of the loading area.

As part of a Citywide resurfacing project (which is planned and funded) the segment of MacArthur Boulevard adjacent to the project is planned to be resurfaced and re-striped with a bike lane along the project frontage as well as some changes to the centerline. The plan for the re-striping was provided by the City and carefully reviewed for consistency with the proposed project. With and without the proposed resurfacing and restriping, the proposed entrance on MacArthur Boulevard would have sufficient sight distance to allow for adequate visibility between bicyclists and motorists and no impacts are anticipated.

With the minimal trip generation as shown in Table IV.D-3, the project will not cause any impacts to traffic safety on MacArthur Boulevard. There are several unrestricted driveways on the east side of MacArthur Boulevard with traffic volumes very similar to the proposed project. Based on review of the driveway location there is adequate sight distance and it would not be necessary to restrict any of the driveway traffic movements based on sight distance alone. However, in consultation with City staff it was agreed that outbound left-turns from the driveway could be problematic due to the queues that form on MacArthur Boulevard during the peak hours in the vicinity of the project entrance. However, it is important to note that any queues at the project exit would be contained entirely on-site (within the parking garage). Since the project access is a three-way intersection, a stop sign would not be necessary for the site exit.

Pedestrian Analysis (Criteria 9, 11, and 12)

Implementation of the proposed project would not result in new impacts to pedestrians in the project vicinity. The project will result in additional pedestrian traffic, but the High Street/MacArthur Boulevard intersection already has crosswalks and pedestrian displays on all four legs. The pedestrian crosswalks are currently set with crossing times that vary from 16 to 18 seconds and the crossing distances range from 50 to 55 feet. This indicates the crosswalk times have all been set based on a walking speed of 3 feet per second. The California Manual of Uniform Traffic Devices specifies a walking speed of up to 4 feet per second may be assumed when determining traffic signal timing parameters. However, extensive surveys of pedestrians indicate that the 85th percentile design speed for older

pedestrians should be 3.03 feet per second.[11] Based on this data the National Cooperative Highway Research Program (NCHRP) is now recommending "*to use a 3.5 feet per second walking speed for timing of traffic signals, and where older pedestrians are a concern to use 3 feet per second*." Based on this data and our review of the existing traffic signal timing the crossing times are properly set for seniors. In addition, it should be noted that seniors were observed crossing at the intersection without any problems during surveys completed for this EIR. Although the project would generate some pedestrian trips, particularly towards the Laurel Business District north of High Street, the current pedestrian crossing times have been properly set so that there should be no issue with use by seniors in this area.

Bicycle Access and Circulation (Criterion 13)

The project will not result in any significant impacts to bicycle access or circulation. Impacts to bicycle access and circulation typically occur when a project would result in an increase in vehicle driveways or when projects are designed with features that would reduce the line of sight or visibility of bicyclists. In this case the proposed project vehicle entrance has sufficient sight distance to allow for adequate visibility between bicyclists on MacArthur Boulevard and motorists using the proposed new project entrance driveway. In addition, the project would not conflict with any existing or planned bicycle or pedestrian facilities or increase the number of driveways along its frontage. The project could potentially improve these conditions for bicyclists by substantially reducing the total number of curb cuts along the project frontages (from five existing to two proposed) and by ensuring there will be sufficient sight distance for vehicles entering and exiting the project site. Based on these considerations, there would be no significant impacts associated with the bicycle access or circulation.

Railroad Crossing Transportation Hazard (Criterion 14)

No at grade rail crossings exist in the project site vicinity. As a result, there would be no project impacts related to railroad crossings.

Air traffic (Criteria 17)

The proposed project would not result in changes to existing air traffic patterns. As a result there would be no project impacts related to air traffic.

[11] Fitzpatrick, K., S. Turner and M. Brewer, ITE Journal, Institute of Transportation Engineers, Washington D.C., 2007. *Improving Pedestrian Safety at Unsignalized Roadway Crossings*. May.

(2) Conflict with City Policies or Programs (Criterion 15)

The project would not conflict with any of the City's adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The project would enhance the existing bus stop adjacent to the site and put housing next to existing transit thereby increasing potential ridership. The project would not conflict with bicycle or pedestrian facilities, but rather improve these facilities by reducing existing curb cuts along the property frontage on MacArthur Boulevard and by maintaining good line of sight for vehicles entering and exiting the project site.

(3) Construction Impacts (Criterion 16)

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 580 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, if parking of construction workers' vehicles cannot be accommodated within the project site, it would temporarily increase parking occupancy levels in the area. Project construction could also impact the operations AC Transit.

Implementation of SCA TRANS-2 would ensure that construction period impacts are reduced to a less-than-significant level and require consultation with AC Transit about construction activity.

b. Significant Transportation and Circulation Impacts

The proposed project would not result in significant impacts related to transportation and circulation.

c. Cumulative Transportation and Circulation Impacts

As discussed above under the Traffic Load Capacity section, the proposed project would not result in cumulative impacts related to traffic and circulation.

d. Planning Related Non-CEQA Issues

The following transportation-related topics are not considered under CEQA, but are discussed below for informational purposes to inform decision-makers and the public about these issues.

(1) Parking

The proposed project would provide a minimum of 65 off-street parking spaces to meet City standards, with six of these reserved for the commercial space. The parking required by the City of Oakland is one stall per residential unit, which can be reduced for this type of senior housing with the approval of a Conditional Use Permit (CUP) per City of Oakland Municipal Code Section 17.116.110(A). Without the CUP for reduced parking the required parking would be 121 parking spaces (115 for the residential units and six for the commercial space at one space per 600 square feet of floor area). With the requested CUP, the required parking would be 59 parking spaces plus six for the retail space for a total requirement of 65 spaces (which equates to a 47 percent reduction in the requirements). Commercial and visitor parking is proposed to be provided in a separate unsecured area near the entrance and the resident parking would be located in a separate secure area located beyond an internal electronic security gate. No on-street parking spaces would be removed as part of the project. The proposed parking plan would also include the required number of accessible handicap parking spaces and bicycle parking spaces.

The City of Oakland Planning Code (Chapter 17.117) specifies the City's requirements for both long-term and short-term bicycle parking. Short-term bicycle parking (bicycle racks) serves people who leave their bicycles for relatively short periods of time, typically for shopping, recreation, eating, or errands. Bicycle racks can provide a high level of convenience but only a moderate level of security. Long-term bicycle parking includes bicycle lockers, bicycle cages, and bicycle stations. These facilities serve people who frequently leave their bicycles at the same location for the day or overnight. These types of bicycle parking provide a high level of security but are less convenient than bicycle racks.

For this project, the long-term bicycle parking requirement is one space for every 4 residential units plus one space per each 12,000 square feet of retail space. This equates to a long-term bicycle parking requirement of 30 bicycle parking spaces. The short-term bicycle parking requirement would be one space for every 20 residential units plus one space per each 2,000 square feet of retail space. This equates to a short-term bicycle parking requirement of 8 bicycle parking spaces.

Parking demand for development projects is typically calculated based on rates contained in the ITE publication, Parking Generation (4th Edition). ITE specifies an average peak period parking demand of 0.59 vehicles per dwelling unit for Attached Senior Adult Housing (Land Use Code 252). For retail uses, ITE specifies an average peak period parking demand of 2.55

vehicles per 1,000 square feet of gross leasable floor area on a non-December weekday (Land Use Code 820). This equates to a parking demand of 77 parking spaces. Parking demand for this location, a business district with excellent transit access, would be less than the typical ITE rate in the Parking Generation Manual. The availability of transit and the attractiveness of walking in the area's mixed-use environment will result in reduced vehicle trip generation and an associated reduction in the need for parking. ITE's senior housing rates are based on surveys that were all (100 percent) conducted in suburban locations and the parking rates for the commercial space were based on surveys of mostly (88 percent) suburban commercial sites.

To account for the project location and proximity to transit, a 20 percent reduction was applied only to the Senior Housing parking generation rate based on U.S. Census Data, which indicates that seniors (residents ages 65 and older) in Oakland have approximately 21 percent less vehicles available when compared to the suburban locations that the ITE rates are based on. No reductions were taken for the commercial component. Applying the 20 percent reduction to the senior housing parking rate resulted in an estimated project parking demand of 63 parking spaces. This demand would be accommodated by the project's proposed parking supply (65 spaces).

A qualitative review of on-street parking occupancy in the area was conducted in March of 2012. On-street parking occupancy within two blocks of the project site was surveyed. The on-street parking surveys indicated that the on-street parking within a two-block radius of the project is never more than about 60 percent occupied overall. Although some individual blocks near the post office (located at 3630 High Street) were observed to be 100 percent occupied the overall occupancy level for the entire two-block area never approached capacity during the surveys.

For these reasons, proposed parking supply would be adequate to accommodate all residents, tenants, staff, and visitor parking.

(2) Transit Ridership

There is existing AC bus transit service on High Street with bus stops located at the MacArthur Boulevard intersection. The senior facility can be expected to contribute some new riders to the system, primarily during off-peak hours. Based on the size of this project the number of transit riders added would not be considered a significant impact according to the City's standards. Oakland City standards also state that the effect of the proposed project on transit ridership need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects, such as

causing the construction of new permanent transit facilities which in turn causes physical effects on the environment. These conditions do not exist with this project. Additionally, based on the roadway capacity analysis provided above, the project is not expected to result in substantial increased travel times for AC Transit buses.

A comment letter was received from AC Transit raising some concerns about the bus stop across the street from the project.[12] The letter noted that the bus stop adjacent to the project frontage on MacArthur Boulevard serves several bus lines with over 10 buses per hour during the peak period. The letter specifies that "this bus stop should remain in place and have an adequate length of red curb". The proposed project would not alter or restrict operations at this bus stop and it would continue to have the required eighty feet of red curb specified by AC Transit.

The letter notes that "*the more problematic bus stop is located at the intersection across MacArthur from the project, in front of a strip mall*" and concludes "*The stop should be relocated to the other side of High Street because of several problems*." The letter notes the following problems: 1) delay for buses would be less (and additional lines could use it) if the stop were located on the far side of the intersection, 2) the length of the stop is inadequate, and 3) buses interfere with access to adjacent properties due to the configuration of their driveways.

Although the project would incrementally increase the use of this bus stop, the problems described above would clearly exist with or without the project and the concerns raised would not be significantly worsened as a result of the project. AC Transit's Bus Stop Policy specifies the following: "*It is AC Transit's policy to encourage counties, cities, and developers to coordinate with the District on the location of bus stops. The District does not own or maintain the bus stop areas, and the ultimate decision for placement of the bus stop is made by the jurisdiction in which the stop is located*."[13] The policy also states that "*far-side stops are the preferable choice for service in general*" but goes on to specify that "*Near-side stops are acceptable when a far-side stop is deemed unsafe or impractical.* "

AC Transit's policy is to "*encourage*" local jurisdictions to locate stops in far-side locations because this is preferable from a bus operations perspective. However, it is important to note that AC Transit has only presented the bus

[12] AC Transit, Oakland, CA, 2011. *Comment Letter from Tina Spencer, Director of Service Development and Planning*. June 17.

[13] AC Transit, Oakland CA. *Bus Stop Policy, Board Policy No. 508.* Adopted December, 1989, Amended October, 2002.

stop relocation issues specifically associated with bus operations. The City of Oakland makes the final determination on these issues and must also take into consideration potential problems with relocating bus stops such as 1) impacts on traffic operations, 2) removal of parking, and 3) conflicts with other driveways/land uses. It is important to note that the far side of the intersection where the bus stop could be relocated is fully developed with existing land uses including a gas station, veterinary hospital, and a pharmacy. As a result, there are multiple driveways in short succession and very limited space for a relocated bus stop. Based on a review of the proposed relocation it was concluded the City of Oakland is likely to ultimately determine that relocation of the bus stop would be either "*unsafe or impractical*" and should remain in its current location.

(3) Queuing

An analysis of vehicle queuing was conducted at the intersection of High Street and MacArthur Boulevard using Synchro 7.0 software. The detailed queuing calculations are contained in the appendix to this report. The analysis verified that substantial queuing does occur at this signalized intersection during peak commute periods, but that implementation of the proposed project would cause an increase of less than 10 feet to the existing queue lengths. These existing queues are often exacerbated by motorists diverting onto nearby surface streets while attempting to bypass congestion on the MacArthur Freeway. More importantly, these existing queuing issues would continue to occur regardless of whether or not the proposed project is implemented.

Under cumulative conditions it was verified that the project would not increase the queues on any of the approaches to the intersection of High Street with MacArthur Boulevard by more than 15 feet. The queuing analysis also verified the project would not create (or exacerbate) any safety or operational problems in the area. It is important to note that this conclusion is based on the assumption that left-turns out of the project entrance driveway would be prohibited. This prohibition would eliminate the potential for project traffic attempting to merge with traffic queued on the approach to the High Street and MacArthur Boulevard intersection. Based on the queuing analysis and the above considerations, there would be no significant impacts associated with queuing as a result of the project.

(4) Traffic Control Devices

The proposed project generates minimal peak hour traffic with 30 trips in the AM peak hour and 31 trips in the PM peak hour. The addition of project traffic would not warrant any additional traffic control devices. Since the project access is a three-way intersection, a stop sign would not be necessary

for the site exit. Also see discussion above regarding the adequacy of signal timing for pedestrian crossings.

(5) Collision History

In review of the collision history for between 2009-2011, together with the nominal vehicular, bicycle and pedestrian traffic that would be added as a result of this project, it was determined that the project would not contribute to known issues and that no new improvements are required. Please also see the discussion of signal timing and bicycle safety above.

E. NOISE AND VIBRATION

This section addresses noise and vibration. The discussion and analysis tiers off the Housing Element EIR. The Housing Element EIR which assumed development of the project site with 115 multi-family residential units for seniors is consistent with the proposed project. The Housing Element EIR included an analysis of potential substantial temporary and/or permanent increases in ambient noise levels in the vicinity of the project site; exposure of residents or businesses to excessive noise levels or ground-borne vibration; and whether this exposure would be in excess of standards established by the City of Oakland. The Housing Element EIR identified the following potentially significant impacts that are applicable to the High and MacArthur Mixed-Use Project (project):

NO-1. The construction of housing units under the Housing Element would potentially increase construction noise levels at sensitive receptors located near construction sites. Compliance with the City's Standard Conditions of Approval (SCA) would reduce these impacts to a less-than-significant level. (LTS with implementation of City SCA)

NOI-2. Construction activities could generate excessive ground-borne vibration during the construction period. Compliance with the City's Standard Conditions of Approval would reduce these impacts to a less-than-significant level. (LTS with implementation of City SCA)

NO-3. If residential uses are located near an existing railway line, residents could be exposed to excessive interior noise and ground-borne vibration. Compliance with the City's Standard Conditions of Approval would reduce these impacts to a less-than-significant level. (LTS with implementation of City SCA)

NO-4. Sensitive receptors at the Housing Sites could be exposed to noise above Normally Acceptable levels for multi-family residential units. Compliance with the City's Standard Conditions of Approval would reduce these impacts to less than significant. (LTS with implementation of City SCA)

NO-5. The proposed project would result in a less than significant increase in noise levels as provided by the City of Oakland threshold of 5 dBA. (LTS with implementation of City SCA)

NO-6. Noise generated by stationary sources, such as mechanical ventilation equipment, could increase noise levels in the vicinity of new residential developments. Compliance with the City's Municipal Code would reduce impacts to a less-than-significant level. (LTS with implementation of City SCA)

NO-7. Noise generated by commercial aircraft using Oakland International Airport would not produce unacceptable noise levels at any of the Housing Sites. (LTS with implementation of City SCA)

NO-8. Construction activity from the proposed project in combination with other foreseen development projects would not have cumulative noise effects. (LTS with implementation of City SCA)

NO-9. Implementation of the proposed project and related projects would result in a less-than- significant increase in noise levels as provided by the City of Oakland threshold of 5 dBA. (LTS with implementation of City SCA)

NO-10. Cumulative development could increase stationary source noise levels in the plan area; however, the proposed project's stationary source contributions would not be considerable and their cumulative impacts would be less than significant. (LTS with implementation of City SCA)

This noise section incorporates by reference the general discussions from the Housing Element EIR (the broader EIR) and focuses solely on the issues specific to the proposed project.

The proposed project, which includes 115 residential units, is consistent with the development proposal considered in the Housing Element EIR for the project site, and would not result in any impacts beyond those identified in the Housing Element EIR as listed above. The potential significant environmental effects of the proposed project related to noise are "adequately addressed" in the Housing Element EIR in that:

A. They have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental report; or

B. They have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of Standard Conditions of Approval or mitigation measures, or by other means in connection with the approval of the project.

A project-specific analysis has never-the-less been completed. The findings of this analysis are consistent with the findings of the Housing Element EIR. The project-specific analysis confirms that the proposed project would not result in any new significant or substantially more severe environmental effects, require new or different Standard Conditions of Approval and/or mitigation measures or project alternatives that would be feasible or more effective in mitigating an impact related to noise and vibration. This EIR also evaluated impacts peculiar to the project and/or project site as well as off-site impacts and cumulative impacts.

1. Setting

The following provides a very brief description of the characteristics of sound and vibration, the regulations related to noise, and the existing noise sources in and adjacent to the project site. Please refer to Section 3.4, Noise of the

Housing Element EIR for a more detailed description of the characteristics and measurement of sound.

a. Characteristics of Sound

Noise is generally defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

(1) Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

A decibel (dB) is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments.

Noise standards in terms of percentile exceedance levels, Ldn (Day-Night-Average Sound Level), are often used together with the Lmax (Maximum A-Weighted Sound Level) for noise enforcement purposes.

(2) Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the ear, and the nervous system.

b. Characteristics of Ground-Borne Vibration

Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. As the vibration propagates from the foundation throughout the remainder of the building, the vibration of floors and walls may cause perceptible vibration from the rattling of windows or a rumbling noise. The rumbling sound caused by the vibration of room surfaces is called ground-borne noise.

c. Noise Regulatory Framework

The following section summarizes the regulatory framework related to noise, including federal, State and City of Oakland plans, policies and standards.

(1) U.S. Environmental Protection Agency (EPA)

In 1972 Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound "requisite to protect the public welfare with an adequate margin of safety." These levels are separated into health (hearing loss levels) and welfare (annoyance levels), as shown in Table IV.E-1. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels.

For protection against hearing loss, 96 percent of the population would be protected if sound levels, on a long-term basis, are lower than or equal to an Leq(24) of 70 dB. The "(24)" signifies an Leq duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at about 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

The noise effects associated with an outdoor Ldn of 55 dB are summarized in Table IV.E-2. At 55 dB Ldn, 95 percent sentence clarity (intelligibility) may be expected at 3.5 meters, and no community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance.

(2) State of California

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, dormitories, 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 found in the 2010 California Building Code (Chapter 12, Section 1207.11). 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 noise sources, the noise insulation standards set an interior standard of 45 dBA Ldn/CNEL in any habitable room with all doors and windows closed.

In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to

TABLE IV.E-1 SUMMARY OF EPA NOISE LEVEL GUIDELINES

Effect	Level	Area
Hearing loss	Leq(24) $\leq$ 70 dB	All areas.
Outdoor activity interference and annoyance	Ldn $\leq$ 55 dB	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	Leq(24) $\leq$ 55 dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	Leq $\leq$ 45 dB	Indoor residential areas.
	Leq(24) $\leq$ 45 dB	Other indoor areas with human activities such as schools, etc.

Source: U.S. Environmental Protection Agency, 1974. "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety."

TABLE IV.E-2 HEARING CONDITIONS AND REACTIONS WITH EPA SOUND LEVELS

Type of Effects	Magnitude of Effect
Speech – Indoors	100 percent sentence intelligibility (average) with a 5 dB margin of safety.
Speech – Outdoors	100 percent sentence intelligibility (average) at 0.35 meters. 99 percent sentence intelligibility (average) at 1.0 meters. 95 percent sentence intelligibility (average) at 3.5 meters.
Average Community Reaction	None evident; 7 dB below level of significant complaints and threats of legal action and at least 16 dB below "vigorous action."
Complaints	1 percent dependent on attitude and other non-level related factors.
Annoyance	17 percent dependent on attitude and other non-level related factors.
Attitude Towards Area	Noise essentially the least important of various factors.

Source: U.S. Environmental Protection Agency, 1974. "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety."

meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses. However, the City

has adopted and modified the State's land use compatibility guidelines, as discussed below.

(3) City of Oakland

Locally, the City of Oakland addresses noise in the City's General Plan Noise Element, the Municipal Code Noise Ordinances, and in the Standard Conditions of Approval.

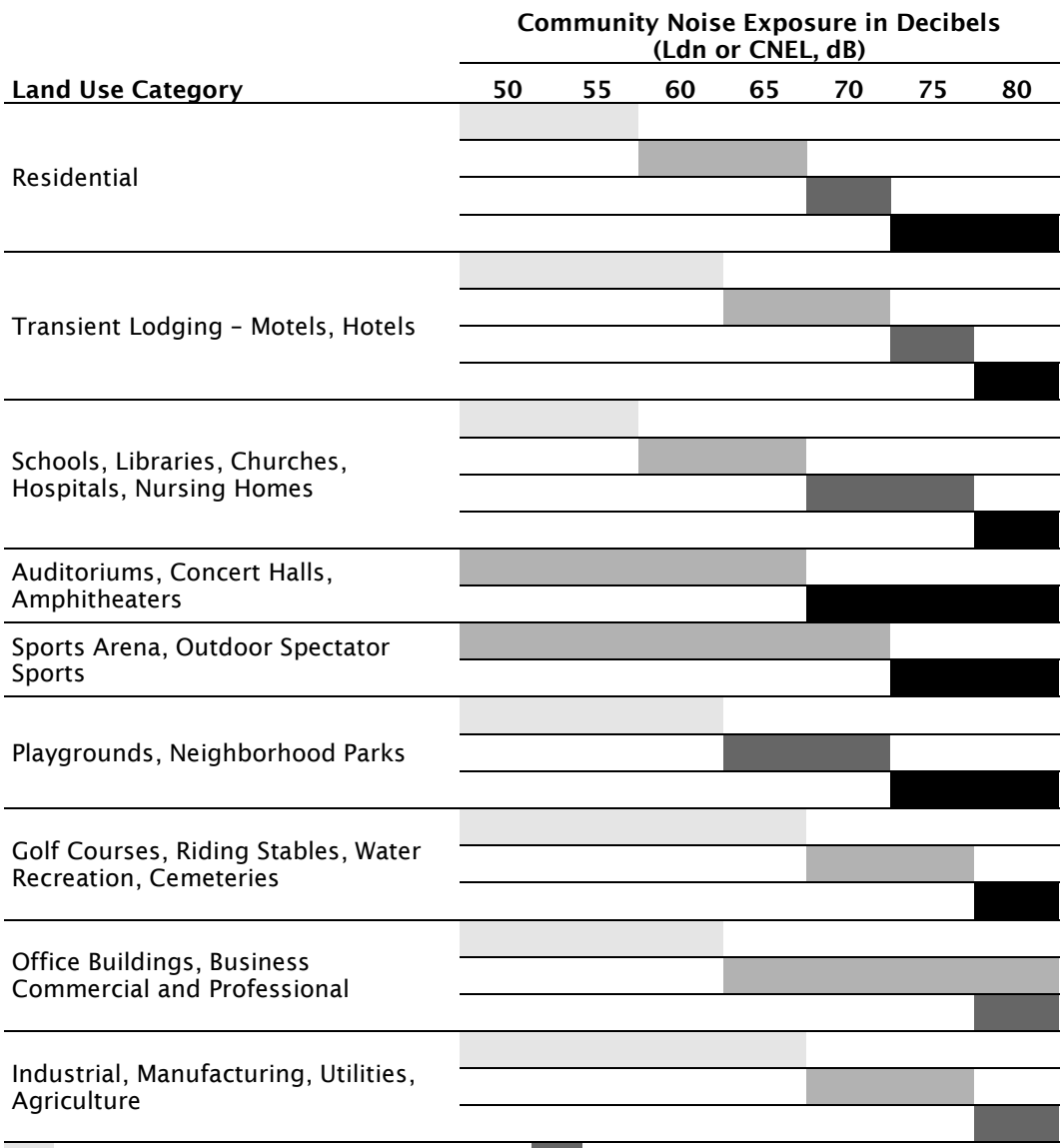
City of Oakland's General Plan Noise Element

The City of Oakland adopted a revised Noise Element in June of 2005. The City has also established acceptable exterior noise thresholds for new residential and new commercial land use development of 60 dBA Ldn and 65 dBA Ldn respectively. As shown in Table IV.E-3, for proposed new residential uses, noise levels exceeding 60 dBA Ldn are conditionally acceptable provided a noise analysis identifies necessary noise reduction measures to achieve the interior noise level standard of 45 dBA Ldn.

The following are the noise policies and action items of the Noise Element and other elements of the General Plan that are applicable to the proposed project.

- 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.
  - Action 1.1: Use the noise-land use compatibility matrix (Figure 6 *of the Noise Element [Table IV.E-3 above]*) in conjunction with the noise contour maps (especially for roadway traffic) to evaluate the acceptability of residential and other proposed land uses and also the need for any mitigation or abatement measures to achieve the desired degree of acceptability.
  - Action 1.2: Continue using the City's zoning regulations and permit processes to limit the hours of operation of noise-producing activities which create conflicts with residential uses and to attach noise-abatement requirements to such activities.
- 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.)
  - Action 3.1: Continue to use the building-permit application process to enforce the California Noise Insulation Standards regulating the maximum allowable interior noise level in new multi-unit buildings.

TABLE IV.E-3 NOISE LAND USE COMPATIBILITY MATRIX



NORMALLY ACCEPTABLE Development may occur without an analysis of potential noise impacts *to the proposed development* (though it might still be necessary to analyze noise impacts that the project might have *on its surroundings*).	NORMALLY UNACCEPTABLE Development should generally de discouraged; it may be undertaken only if a detailed analysis of the noise-reduction requirements is conducted, and if highly effective noise insulation, mitigation or abatement features are included in the design.
CONDITIONALLY ACCEPTABLE Development should be undertaken only after an analysis of noise-reduction requirements is conducted, and if necessary noise-mitigating features are included in the design. Conventional construction will usually suffice as long as it incorporates air conditioning or forced-air-supply systems, though it will likely require that project occupants maintain their windows closed.	CLEARLY UNACCEPTABLE Development should not be undertaken.

Source: City of Oakland, 2005. *City of Oakland General Plan, Noise Element,* Figure 6.

- Action 3.2: Review the City's noise performance standards and revise them as appropriate to be consistent with City Council policy.
- Action 3.3: Demand that Caltrans implement sound barriers, building retrofit programs and other measures to mitigate to the maximum extent feasible noise impacts on residential and other sensitive land uses from any new, widened or upgraded roadways; any new sound barrier must conform with City policies and standards regarding visual and aesthetic resources and quality.

- Policy I/C4.2: Minimizing Nuisances. The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls.
- Policy N3.9: Orienting Residential 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.

City of Oakland Municipal Code Noise Ordinances

The noise ordinances of the City's Municipal Code[1] also regulate the maximum allowable daytime average receiving noise level for construction activity. These noise levels are shown in Table IV.E-4.

Municipal Code 17.120.060 outlines the City of Oakland's performance standards with regards to residential development exposed to groundborne vibration. The code restricts all activities outside of the M-40 and M-30 zones from creating a vibration that would be perceptible without instruments by the average person at or beyond any lot line of the lot containing such activities. Groundborne vibration caused by motor vehicles, trains, and temporary construction or demolition work is exempt from this standard.

The City's maximum allowable operational noise level standards for residential and commercial land uses in terms of percentile exceedance are shown in Table IV.E-5.

(4) City of Oakland's Standard Conditions of Approval

The City's Standard Conditions of Approval relevant to noise and vibration are listed below for reference. The Standard Conditions of Approval would be adopted as requirements of the proposed project if the project is approved

[1] City of Oakland Municipal Code Noise Ordinance, §17.120 and §8.18.

TABLE IV.E-4 CITY OF OAKLAND CONSTRUCTION NOISE STANDARDS AT RECEIVING PROPERTY LINE, DBA

	DAILY 7:00 a.m. to 7:00 p.m.	WEEKENDS 9:00 a.m. to 8:00 p.m.
Short-Term Operation[a]		
Residential	80	65
Commercial, Industrial	85	70
Long-Term Operation[b]		
Residential	65	55
Commercial, Industrial	70	60

[a] Short-term construction or demolition operation is less than 10 days.
[b] Long-term construction or demolition operation is 10 days or more.
Source: City of Oakland Municipal Code Section 17.120.050 Noise.

TABLE IV.E-5 CITY OF OAKLAND OPERATIONAL NOISE STANDARDS AT RECEIVING PROPERTY LINE, DBA

Cumulative Number of Minutes in Either the Daytime or Nighttime 1-Hour Time Period	Residential Daytime 7:00 a.m. to 10:00 p.m.	Residential Nighttime 10:00 p.m. to 7:00 a.m.	Commercial Use, Anytime
20	60	45	65
10	65	50	70
5	70	55	75
1	75	60	80
0	80	65	85

Source: City of Oakland Municipal Code Section 17.120.050 Noise.

by the City to help ensure no significant impacts for noise and vibration occur; as a result they are not listed as mitigation measures.

SCA NOISE-1: Days/Hours of Construction Operation. *Ongoing throughout demolition, grading, and/or construction.*
The project applicant shall require construction contractors to limit standard construction activities as follows:

a) Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that 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 a.m. to 7:00 p.m. 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.

SCA NOISE-2: Noise Control. *Ongoing throughout demolition, grading, and/or construction.*
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:

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) Except as provided herein, 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 if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

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 use other measures as determined by the City to provide equivalent noise reduction.

d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

SCA NOISE-3: Noise Complaint Procedures. *Ongoing throughout demolition, grading, and/or construction.*
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. These measures shall include:

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;

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.

SCA NOISE-4: Interior Noise. *Prior to issuance of a building permit.*
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.

SCA NOISE-5: Pile Driving and Other Extreme Noise Generators. *Ongoing throughout demolition, grading, and/or construction.*
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. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. 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 implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity:

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 implement such measure if such measures are feasible and would noticeably reduce noise impacts; and

e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.

SCA NOISE-6: Operation Noise-General *Ongoing.*
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.

d. Existing Noise Environment

The project is located in a dense urban area with a variety of land uses surrounding the site. A discussion of the existing noise environment is provided below.

(1) Existing Ambient Noise

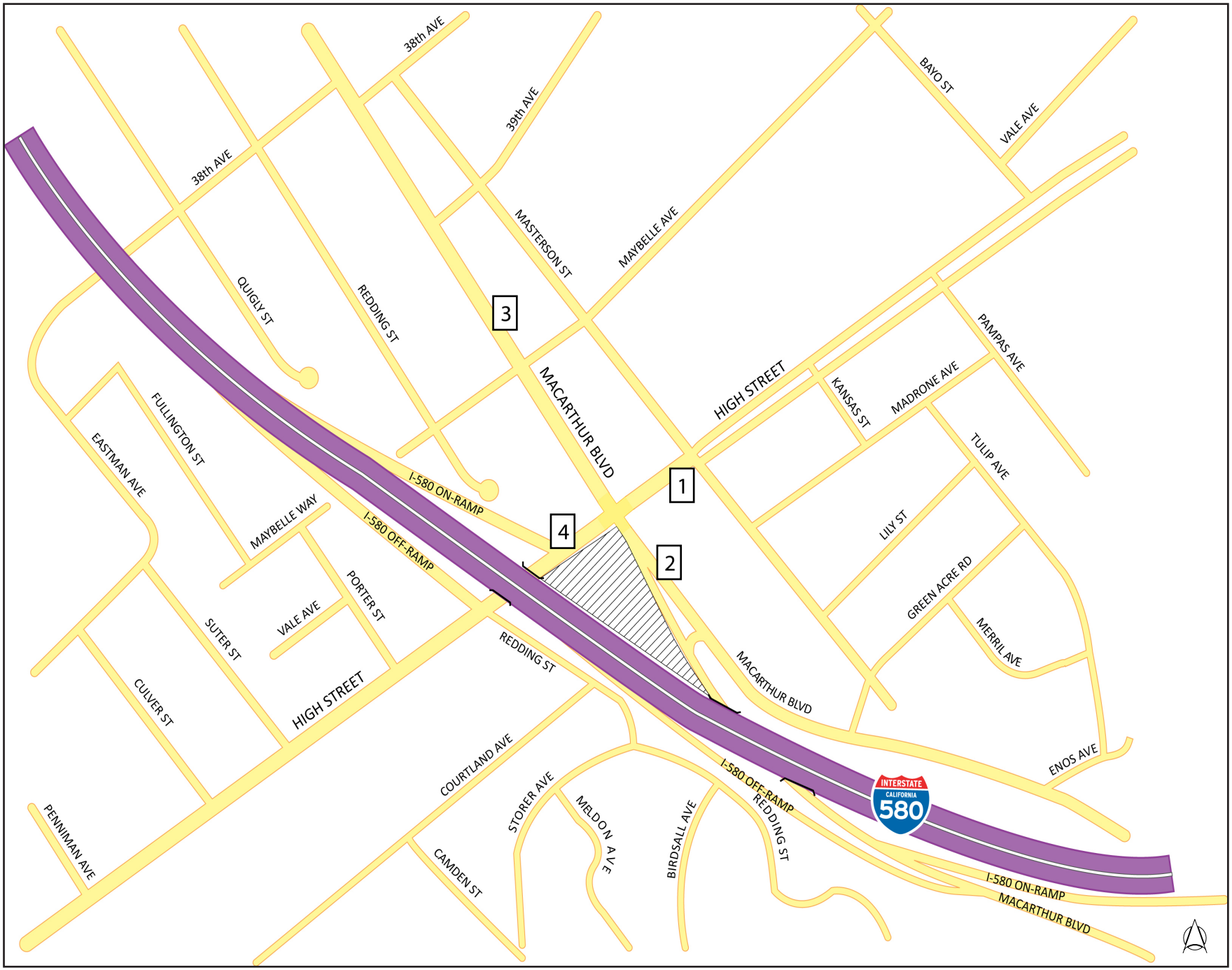
Ambient noise sources in the vicinity of the project include traffic on MacArthur Freeway, High Street and MacArthur Boulevard. The existing site is generally at grade with High Street and MacArthur Boulevard, but the terrain is uneven. MacArthur Freeway is elevated by approximately 15 feet relative to the west side of the site. High Street and MacArthur Boulevard presently carry average daily traffic volumes (ADT) of approximately 16,000 and 14,000 vehicles,[2] respectively. The street traffic on High Street and on MacArthur Boulevard is primarily automobiles, but also includes buses and some trucks. High Street rises from west to east along the site. There is a traffic stop light at the intersection of High Street and MacArthur Boulevard.

Short-term ambient noise monitoring on the project site was conducted on June 9, 2010 between the hours of 4:00 p.m. and 5:00 p.m., and on June 10, 2010 between the hours of 4:40 and 6:00, in 20-minute segments, at four separate locations in the project vicinity. The purpose of noise monitoring is to document the existing noise environment and capture the noise levels associated with operations and activities in the project vicinity. Table IV.E-6 lists the noise levels measured during the short-term 20-minute noise measurements. Maximum and minimum noise levels were recorded as well as the equivalent continuous noise level measure Leq. The primary noise source was vehicle traffic. Results indicate that current noise levels at representative locations in the project vicinity range from 68.8 to 74.2 dBA daytime Leq. The meteorological conditions at the time of each noise measurement are shown in Table IV.E-7.

Figure IV.E-1 shows the monitoring locations, and are described as follows.

- Location 1 is 14 feet from the curb of High Street and 199 feet from the curb of MacArthur Boulevard, east of the site and on the south side of High Street.
- Location 2 is 10 feet from the curb of MacArthur Boulevard and 222 feet from the curb of High Street, across the boulevard from the site. Measurements at locations 1 and 2 were taken on June 9, 2010.

[2] Abrams & Associates, 2010. *Project Traffic Analysis.*



Map for Figure created by Abrams Associates Traffic Engineering, locations provided by Ballard George

Figure IVe-1
High & MacArthur Mixed-Use Senior Housing Project EIR
Noise Measurement Locations

TABLE IV.E-6 SHORT-TERM AMBIENT NOISE MONITORING RESULTS, DBA

Location Number	Location Description	Start Time	Leq[a]	Lmax[b]	Lmin[c]	Noise Sources
1	High St., east of MacArthur Blvd. Site	4:00 pm	68.8	80.6	65.5	Automobiles, freeway
2	MacArthur Blvd., south of High St.	5:00 pm	74.2	84.7	70.9	Automobiles, buses, freeway
3	MacArthur St., north of High St.	4:40 pm	72.7	95.6	61.7	Automobiles, buses, boom boxes
4	High St., west of MacArthur Blvd.	5:40 pm	72.4	82.4	68.5	Automobiles, buses, freeway

[a] Leq represents the average of the sound energy occurring over the 20-minute time period.
[b] Lmax is the highest instantaneous sound level measured during the 20-minute time period.
[c] Lmin is the lowest instantaneous sound level measured during the 20-minute time period.
Source: Ballard George, 2010.

TABLE IV.E-7 METEOROLOGICAL CONDITIONS DURING AMBIENT NOISE MONITORING

Location Number	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Temp. (F)	Relative Humidity (%)
1	18	14	80	50
2	15	11	80	50
3	12	8	71	53
4	10	7	71	53

Source: Ballard George, 2010.

- Location 3 was on the east side of MacArthur Boulevard north of High Street, 7 feet from the curb of MacArthur Boulevard and 685 feet from the curb of High Street.
- Location 4 was on the north side of High Street west of MacArthur Boulevard, 23 feet from the curb of High Street and 167 feet from the curb of MacArthur Boulevard.

(2) Existing Traffic Noise

The existing traffic noise levels for roadway segments in the project vicinity are listed in Table IV.E-8. This table was generated from roadway traffic volumes data, vehicle mix and speeds, and roadway geometry, as observed, using the Caltrans highway traffic noise prediction model, Leqv2. Existing noise levels along select roadway segments in the vicinity of the project (at 100 feet from the roadway centerline, for open terrain) range from 62 dBA to 66 dBA Ldn. The noise levels shown are those due to or contributed by the

TABLE IV.E-8 EXISTING TRAFFIC NOISE LEVELS, DBA

Roadway Segment	ADT[a]	Centerline to 70 Ldn (Feet)	Centerline to 65 Ldn (Feet)	Centerline to 60 Ldn (Feet)	Ldn (dBA) at 100 Feet from Centerline of Outermost Lane
High St., west of MacArthur Boulevard	15,640	<50	124	374	66
High St., east of MacArthur Boulevard	8,000	<50	52.5	150	62
MacArthur Boulevard, north of High Street	12,670	<50	95	350	65
MacArthur Boulevard south of High Street	13,930	<50	120	370	66

[a] ADT=Average Daily Traffic, approximate. Distances are in feet.
[b] Traffic noise within 50 feet of roadway centerline requires site-specific analysis.
Source: Ballard George, 2010.

identified respective roadways, and are in reference to free-flow conditions. Note that additional noise at a given location is contributed by other roadways, particularly near intersections and/or at greater distances from the named roadway.

(3) Existing Aircraft Noise

The Oakland International Airport is located approximately 3 miles southwest of the site. Due to the distance from the airport and orientation of flight paths, the project site is not located within the 65 dBA CNEL noise contours for an airport.

2. Impacts, Standard Conditions of Approval, and Mitigation Measures

This section evaluates potential noise and vibration impacts associated with the proposed project. It also identifies Standard Conditions of Approval and mitigation measures necessary to address these impacts.

a. Criteria of Significance

The proposed project would result in a significant noise or vibration impact if it would:

1. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction

noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts (see Table IV.E-6) during the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard (see Table IV.E-4);

2. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise;

3. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise;

4. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project) [NOTE: Outside of a laboratory, a 3 dBA change is considered a just-perceivable difference. Therefore, 3 dBA is used to determine if the project-related noise increases are cumulative considerable;

5. Expose persons to interior Ldn 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);

6. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval (see Table IV.E-3);

7. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]);

8. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA);[3]

[3] The FTA criteria were developed to apply to transit-related groundborne vibration. However, these criteria should be applied to transit-related and non-transit-related sources of vibration.

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.

b. Less-than-Significant Noise and Vibration Impacts

Less-than-significant noise impacts of the proposed project are discussed below.

(1) Construction Related Noise and Vibration (criteria 1-2)

The Housing Element EIR found that construction activities could increase noise levels at sensitive receptors and generate excessive ground vibration and compliance with the City's Standard Conditions of Approval would reduce these potential impacts to a less-than-significant level (see Housing Element EIR Impacts NO-1 and NO-2). The following analysis provides project-specific analysis for informational purposes and to confirm the findings of the Housing Element EIR.

The start date of construction activities at the site has not yet been determined; however, once work has commenced the applicant anticipates completion of the work within 12 months. Additionally, the project is not anticipated to be developed in phases. As a result, the only on-site users that would be exposed to construction noise are the construction workers. No residents or commercial employees will be on-site until after construction is complete.

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses (e.g., residences, hospitals), or when construction durations last over extended periods of time (greater than one year).

Two types of short-term noise impacts would occur during demolition, site remediation and project construction. The first is the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site. The pieces of heavy equipment for site remediation, grading and construction would be moved to the site and remain for the duration of each construction phase. The increase in traffic

flow on the surrounding roads due to construction traffic is expected to be minimal. However, there would be short-term intermittent high noise levels associated with trucks arriving at and departing from the project site.

The second type of short-term noise impact is related to the noise generated by heavy equipment operating on the project site. Construction (including demolition of existing structures and site remediation) is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Table IV.E-9 lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

As shown in Table IV.E-9, the maximum noise level generated by each hydraulic excavator on the proposed project site is anticipated to be 86 dBA Lmax at 50 feet from the earthmover. Each bulldozer would generate 88 dBA Lmax at 50 feet. The maximum noise level generated by water and pickup trucks is approximately 86 dBA Lmax at 50 feet from these vehicles. With each doubling of the number of sound sources of equal strength, the noise level increases by 3 dBA (e.g., two excavators operating at 86 dBA yield a total noise level of 89 dBA).

Assuming that each piece of construction equipment operates simultaneously, the worst case combined noise level during this phase of construction would be 91 dBA Lmax at a distance of 50 feet from an active construction area.

During the construction period, a wide variety of construction, remediation, and demolition equipment would be used and materials would be transported to and from the site during each development phase. It is anticipated that larger mechanical equipment such as tractors, scrapers and trucks would be used during the remediation and demolition phase. Construction activities would include the use of smaller power tools, generators and other sources of noise. Pile driving is not anticipated as part of the proposed project.

TABLE IV.E-9 TYPICAL CONSTRUCTION EQUIPMENT MAXIMUM NOISE LEVELS, LMAX, 50 FEET

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 Feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Electric Saws	66 to 72	70
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	85 to 90	88
Tractors	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	85
Air Compressors	76 to 89	85
Trucks	81 to 87	85

Source: Bolt, Beranek & Newman, 1987. *Noise Control for Buildings and Manufacturing Plants.*

Construction noise levels would vary by stage and vary within stages based on the amount of equipment in operation and location where the equipment is operating. Table IV.E-10 shows the typical noise level ranges for construction of domestic housing. Most demolition and construction noise is in the range of 81 to 88 dBA Leq at a distance of 50 feet from a busy construction site. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures or terrain would result in lower noise levels. Average noise levels at the nearest sensitive receptors, residences located approximately 185 feet

TABLE IV.E-10 TYPICAL RANGES OF ENERGY EQUIVALENT CONSTRUCTION NOISE LEVELS AT 50 FEET, LEQ IN DBA

	Domestic Housing	Office Building, Hotel, Hospital, School, Public Works	Industrial, Parking Garage, Religious, Amusement & Recreations, Store, Service Station	Public Works, Roads & Highways, Sewers, and Trenches
	I II	I II	I II	I II
Ground	83	84	84	84
Clearing	83	84	83	84
Excavation	88	89	89	88
	75	79	71	78
Foundations	81	78	77	88
	81	78	77	88
Erection	81	87	84	79
	85	75	72	78
Finishing	88	89	89	84
	72	75	74	84

Notes: I = All pertinent equipment present at site; II = Minimum required equipment present at site.
Source: U.S.E.P.A., 1973. Legal Compilation on Noise, Vol. 1, p. 2-104.

from the site, would range from 70 to 77 dBA Leq during busy construction periods. Noise levels would be elevated by 10 to 15 dBA at these nearby uses during typical busy construction periods.

The impacts from construction noise would be reduced to less-than-significant levels with implementation of the City's Days/Hours of Construction Operation, and Noise Control Noise Complaint Procedures, and Pile Driving and Other Extreme Noise Generators Standard Conditions of Approval (see SCAs NOISE-1, NOISE-2, NOISE-3, and NOISE-5) for construction noise as described in Section IV.E-1.c(4).

To address impacts from extreme noise generating construction activities, if used, that may expose sensitive receptors to noise levels greater than 90 dBA Lmax, the City's Standard Conditions of Approval (see SCA NOISE-1, NOISE-2, NOISE-3, and NOISE-5) mandate that a site-specific noise reduction plan be developed and submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. Implementation of

these Standard Conditions of Approval would ensure that potential impacts resulting from construction-activity noise would be less than significant.

The construction of the project would have the potential to expose construction workers to noise levels in excess of applicable standards established by the Occupational Safety and Health Administration (OSHA). As with any major construction project, it is assumed that construction workers would use hearing protection as required by their employers to prevent hearing damage.

Construction activities associated with implementation of the project could temporarily expose persons in the vicinity of the proposed project construction areas to ground-borne vibration. Construction activities would include site preparation work, excavation, foundation work, and new building framing. Impact pile driving, which typically produces the highest vibration levels, would not be required for this development.

Table IV.E-11 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Erection of the building structure is not anticipated to be a source of substantial vibration with the exception of sporadic events such as dropping of heavy objects, which should be avoided to the extent possible. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. At the nearest residential land uses, typical construction activities would be expected to result in vibration levels less than the threshold of human perceptibility (0.03 in/sec PPV).

Compliance with the City's Standard Conditions of Approval related to construction noise (see SCA NOISE-1, 2, 3, and 5) would ensure the impact remains less than significant.

(2) Operational Stationary Noise Sources (criterion 3)

Stationary noise is regulated under Chapter 17 of the City of Oakland Municipal Code as shown in Table IV.E-5. The proposed project would not include manufacturing processes or mechanical ventilation equipment that would generate excess noise or vibration levels. Noise generated by mechanical machinery such as air conditioners and emergency generators

TABLE IV.E-11 VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT[4]

Equipment		PPV at 25 Ft (in/sec)	Approximate LV at 25 Ft (VdB)
Pile Driver (Impact)	upper range	1.158 (N/A)	112 (N/A)
	typical	0.644 (N/A)	104 (N/A)
Pile Driver (Sonic)	upper range	0.734 (N/A)	105 (N/A)
	typical	0.170 (N/A)	93 (N/A)
Clam shovel drop		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

would be similar to or less than noise levels emanating from MacArthur Freeway and other local roadways, and would not create a significant increase in noise levels or result in noise levels that exceed the Municipal Code noise standards. The operation of such equipment would not be audible at the nearest residential receptors above the ambient noise environment resulting from traffic. Therefore, project-related stationary noise sources would result in less-than-significant impacts on noise sensitive land uses in the project vicinity, consistent with Housing Element EIR Impact NO-6.

[4] United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment.* May.

(3) Operational – Vehicular Noise Sources Consistent with the Findings of the Housing Element EIR (Criterion 4)

The Housing Element EIR found that increased traffic volumes that would result from development of additional residential units would not significantly increase noise levels along roadway segments in 2035 (see Housing Element EIR Impact NO-5).

The proposed project would not include noticeable operational noise that would contribute to an increase in the ambient noise environment. The main source of noise during operation would be project traffic. Traffic generated by the proposed project would not be significant enough to result in any perceptible changes in noise.

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

The existing and future traffic noise levels were calculated using the Caltrans Traffic Noise Prediction Model, LeqV2. These project scenarios were evaluated: Existing With and Without Project and Cumulative 2035 Baseline[5] With and Without Project. Sound levels are the same, within a very small increment, with and without the project for each case.[6] Traffic data used in the model for City roadways were obtained from the traffic impact analysis prepared for this EIR.

The project traffic effect will be extremely small: it will result in an increase of less than 0.05 dB along each of the roadways along the site.

Traffic volumes used for MacArthur Freeway along the site (for noise impact at the site) were projected by reviewing historical traffic patterns along the segment of MacArthur Freeway that is adjacent to the project site. Future projection data has not been made available directly from Caltrans staff. A review of the historical trend in traffic volumes along MacArthur Freeway show that traffic volumes, increased at a rate of about 1 to 2 percent per year between 2000 and 2005. According to data published by Caltrans[7], the annual average daily traffic volume on the segment of MacArthur Freeway adjacent to the site was 132,000 vehicles per day in 2000. By 2005, the annual average daily traffic volume on the same segment was reported as

[5] Baseline conditions include past, present, existing, pending and reasonably foreseeable future development.

[6] Ibid.

[7] Caltrans, Accessed February 1, 2012 via http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/.

144,000 vehicles per day. The most recent data that is available (2010) shows that the annual average daily traffic volume on the segment of MacArthur Freeway adjacent to the site had decreased from 2005 conditions to 133,000 vehicles per day. A 1-dB increase for year 2035 has been projected, applicable to all roadways primarily contributing to noise at the site. This 1-dB increase conservatively assumes that traffic volumes will increase by about 26 percent over existing conditions by 2035.

The resulting noise levels were adjusted in accordance with information in the technical literature for Ldn relative to peak-traffic-hour noise level. Ldn contours are derived through a series of computerized iterations to isolate the 60, 65, and 70 dBA Ldn contours for traffic noise levels in the project area. The existing ambient noise levels near the project vicinity are shown in Table IV.E-8. These values are in reference to open, hard terrain conditions. Table IV.E-12 lists traffic noise levels for existing conditions *with* the project. Again there is no calculated difference, as rounded to the nearest 0.1 dB, with and without the project.

Highway and other traffic noise levels would remain unchanged (to the nearest 0.1) dB due to the very small percentage of project-generated traffic in relation to existing vehicle traffic on surface streets and MacArthur Freeway. The noise level increase on each of the affected roadways is well below the 3 dBA increase considered to be perceptible by the human ear in an outdoor environment and clearly below the ambient noise increase significance threshold of 5 dBA. The project's contribution to ambient noise is below the thresholds; this impact would be less than significant, consistent with the findings of the Housing Element EIR.

(4) Exposure of Persons to Significant Noise (Criteria 5-7)

The Housing Element EIR compliance with the City Standard Conditions of Approval would ensure sensitive receptors at housing sites are not exposed to noise above Normally Acceptable (see Housing Element EIR Impact NO-4).

The proposed project includes residential housing units for seniors. The surrounding noise environment, most notably the elevated portions of MacArthur Freeway adjacent to the site and mechanical equipment associated with the project would expose persons residing within the proposed project to excessive noise levels that exceeds the interior noise threshold of 45 dBA. Units on the top floor of the building would be exposed to the worse case noise exposure of up to 81 dBA because these units would have direct line-of-sight to the elevated portions of MacArthur Freeway. As noted above in the City's Standard Condition of Approval (SCA NOISE-4), noise reduction

TABLE IV.E-12 POST-CONSTRUCTION TRAFFIC NOISE LEVELS, DBA, OPEN CONTOURS

Roadway Segment	ADT[a]	Centerline to 70 Ldn (Feet)	Centerline to 65 Ldn (Feet)	Centerline to 60 Ldn (Feet)	Ldn (dBA) at 100 Feet from Centerline of Outermost Lane
High St., west of MacArthur Blvd.	15,640	60	200	480	67
High St., east of MacArthur Blvd.	8,000	<50	52.5	150	62
MacArthur Blvd., north of High St.	12,670	<50	95	350	65
MacArthur Blvd. south of High St.	13,930	60	190	470	67

[a] ADT=Average Daily Traffic, approximate. Distances are in feet.
[b] Traffic noise within 50 feet of roadway centerline requires site-specific analysis.
Source: Ballard George, 2010.

measures 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 prior to the issuance of a building permit. Preliminary recommendations for noise reductions are included in Appendix D, all of which are subject to revision based on final building design. Acoustically rated windows ranging from STC 28 to STC 42 would be required depending on the future noise exposure to maintain interior noise levels at or below 45 dBA Ldn. 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.

Implementation of City Standard Conditions of Approval (SCA NOISE-4), which is considered part of the project for purposes of this analysis, will assure that noise reduction measures in the form of sound-rated assemblies will be incorporated into project building design, and that interior noise levels will be maintained at or below 45 dBA Ldn, consistent with the regulatory criteria established by the City of Oakland and California Building Code.

(5) Exposure to Aircraft Noise (Criteria 9-10)

The Oakland International Airport is located approximately 3 miles southwest of the site. Due to the distance from the airport and orientation of flight paths, the project site is not located within the 65 dBA CNEL noise contours for an airport. Therefore, this impact would be less than significant.

(6) Exposure to Vibration (Criteria 8)

The project site is not located in the vicinity of significant sources of groundborne vibration (e.g., railroad trains, light-rail trains, etc.). According to Caltrans[8], "…because vehicles traveling on highway are supported on flexible suspension systems and pneumatic tires, these vehicles are not an efficient source of ground vibration. They can, however, impart vibration into the ground when they roll over pavement that is not smooth. Continuous traffic traveling on a smooth highway creates a fairly continuous but relatively low level of vibration. Where discontinuities exist in the pavement, heavy truck passages can be the primary source of localized, intermittent vibration peaks. These peaks typically last no more than a few seconds and often for only a fraction of a second. Because vibration drops off rapidly with distance, there is rarely a cumulative increase in ground vibration from the presence of multiple trucks. In general, more trucks result in more vibration peaks, though not necessarily higher peaks. Automobile traffic normally generates vibration amplitudes that are one-fifth to one-tenth the amplitude of truck vibration amplitudes. Accordingly, ground vibration generated by automobile traffic is usually overshadowed by vibration from heavy trucks."

A review of the highest measured vibration levels attributable to trucks, as documented by Caltrans, shows that maximum vibration levels can reach 0.02 in/sec PPV at a distance of 75 feet from the near travel lane when a truck encounters a large discontinuity in the pavement surface (e.g., large pothole, metal plates, etc.). Maximum vibration levels from trucks would generally be imperceptible at the nearest receptors on the project site, located approximately 75 feet from the near travel lane of MacArthur Freeway, assuming that a large discontinuity in the pavement surface exist immediately adjacent to the project site. Vibration levels from typical truck passbys and autos, assuming a fairly smooth highway, would fall below the level of perception. Therefore, this impact would be less than significant.

c. Significant Noise and Vibration Impacts

The proposed project would not result in any significant noise or vibration-related impacts.

d. Cumulative Noise and Vibration Impacts

Longer-term noise from cumulative development (including past, present, and reasonably foreseeable future development) in the area would primarily occur from motor vehicle traffic. Cumulative traffic noise levels in the project area were estimated using traffic data provided by Abrams Associates and

[8] Caltrans, 2004. *Transportation- and Construction-Induced Vibration Guidance Manual.*

are presented in Tables IV.E-13 and IV.E-14. As shown in the two tables, the combination of project and (primarily other) cumulative traffic would increase traffic noise levels by one dBA along the analyzed roadway segments resulting in a less-than-significant impact.

In addition, the impacts from construction noise and vibration at the site would be reduced to less-than-significant levels with implementation of the City's Standard Conditions of Approval for construction noise. In the event that multiple construction projects occur in the vicinity at the same time, all projects would be subject to the same construction noise and vibration conditions of approval, thereby reducing potential cumulative construction noise impacts to a less-than-significant level.

TABLE IV.E-13 CUMULATIVE 2035 WITHOUT PROJECT TRAFFIC NOISE LEVELS, DBA

Roadway Segment	ADT[a]	Centerline to 70 Ldn (Feet)	Centerline to 65 Ldn (Feet)	Centerline to 60 Ldn (Feet)	Ldn (dBA) at 100 Feet from Centerline of Outermost Lane
High St., west of MacArthur Blvd.	18,770	<50	150	460	67
High St., east of MacArthur Blvd.	9,750	< 50	70	220	63
MacArthur Blvd., north of High St.	13,340	< 50	100	340	66
MacArthur Blvd. south of High St.	18,195	< 50	150	380	66

[a] ADT=Average Daily Traffic, approximate. Distances are in feet.
[b] Traffic noise within 50 feet of roadway centerline requires site-specific analysis.
Source: Ballard George, 2010.

TABLE IV.E-14 CUMULATIVE 2035 WITH PROJECT TRAFFIC NOISE LEVELS, DBA

Roadway Segment	ADT[a]	Centerline to 70 Ldn (Feet)	Centerline to 65 Ldn (Feet)	Centerline to 60 Ldn (Feet)	Ldn (dBA) at 100 Feet from Centerline of Outermost Lane
High St., west of MacArthur Blvd.	18,770	60	200	560	68
High St., east of MacArthur Blvd.	9,750	< 50	70	220	63
MacArthur Blvd., north of High St.	13,340	< 50	100	340	66
MacArthur Blvd. south of High St.	18,195	60	180	440	67

[a] ADT=Average Daily Traffic, approximate. Distances are in feet.
[b] Traffic noise within 50 feet of roadway centerline requires site-specific analysis.
Source: Ballard George, 2010.

V. ALTERNATIVES

The CEQA Guidelines require the analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.[1] An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

The primary purpose of this chapter is to ascertain whether there are alternatives of design, scale, land use, or location that would substantially lessen the project's significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives, or would be more costly."[2]

The three CEQA project alternatives to the proposed project considered include:

- No Project/No Build Alternative
- Reduced Development/Mitigated Alternative
- Commercial Alternative

In considering the range of alternatives to be analyzed in an EIR, the CEQA Guidelines state that an alternative site/location should be considered when feasible alternative locations are available and the "significant effects of the project would be avoided or substantially lessened by putting the project in another location." However, there are no significant and unavoidable impacts and other locations will have similar impacts, therefore an off-site location was not studied. Moreover, given the project site is identified in the Housing Element as a site for multi-family residential development and is assumed to be developed as such, an alternative site was not considered. The Housing Element assumes development of the site to meet with City's Regional Housing Needs Assessment (RHNA) numbers. As a result, consideration of an alternative site could compromise the City's ability to meet the objectives of the Housing Element. A feasible alternative location that would achieve the key project objective of redeveloping the vacant site is not available. As such, an alternative site location is not considered.

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[1] *CEQA Guidelines*, Section 15126.6.

[2] *CEQA Guidelines*, Section 15126.6(b).

The remainder of this chapter is organized as follows: overview of project objectives and impacts; description and analysis of CEQA project alternatives; and discussion of environmentally superior alternatives.

A. PROJECT OBJECTIVES AND IMPACTS

To determine what range of alternatives should be considered, the impacts identified for the proposed project were considered along with the project objectives. The proposed project is described in detail in Chapter III, Project Description, and the potential environmental effects of the proposed project are analyzed in Chapter IV, Setting, Impacts, Standard Conditions of Approval and Mitigation Measures. The project objectives and impacts are summarized below.

1. Project Objectives

The High & MacArthur Mixed-Use Project seeks to redevelop and revitalize an underutilized site in Central Oakland by creating a residential and commercial project that provides pedestrian-oriented, mixed-use development (housing and commercial). Specifically, the project seeks to:

- Facilitate housing construction consistent with development anticipated in the City's Housing Element that meets the demand of a growing population.
- Provide a substantial number of market-rate and affordable housing units meeting a critical need for the City of Oakland as well as for the region to serve a growing population of seniors.
- Develop urban infill housing with convenient transportation access that would serve to reduce traffic-related pollution.
- Orient residential development near existing amenities.
- Facilitate City of Oakland goal for the Laurel Business District to "grow and change" in terms of density, activity, or use.
- Enhance City and local community redevelopment efforts and strengthen existing neighborhood-serving businesses.
- Provide a transition from the Laurel Business District to the Mills College area.
- Construct financially feasible developments with sufficient flexibility to adjust to market needs and to provide reasonable returns on investment so as to secure construction and long-term financing.

- Provide community residents with additional opportunities to purchase goods and services.
- Provide employment opportunities from development and operation of commercial businesses.
- Ensure that hazardous materials contamination on site is remediated.

2. Project Impacts

As detailed in Chapter IV, Impacts, Standard Conditions of Approval, and Mitigation Measures, the proposed project is not anticipated to result in any significant impacts. The EIR considered the following topics in detail, but found that the project's impacts would be less than significant with implementation of the City's SCAs:

- Aesthetic Resources
- Air Quality and Greenhouse Gases
- Hazards and Hazardous Materials
- Transportation and Circulation
- Noise and Vibration

B. PROJECT ALTERNATIVES

Given that no significant impacts were identified and the primary purpose of considering alternatives under CEQA is to evaluate alternatives that would substantially lessen the project's significant impacts, the City looked to alternatives that would lessen the project's already less-than-significant impacts and meet most of the project objectives.

The alternatives analyzed below include the following:

- No Project/No Build Alternative
- Reduced Development/Mitigated Alternative
- Commercial Alternative

1. No Project/No Build Alternative

The No Project/No Build Alternative assumes that the project site would remain in its current condition and would not be subject to development. The No Project/No Build Alternative is considered to compare the impacts of approving the High & MacArthur Mixed-Use project to not approving the project. Under the No Project/No Build Alternative, no development would occur on the project site and existing conditions would remain. The site would be fenced off, the billboard would remain, and the remainder of the site would be vacant and undeveloped. No new structures would be developed, so no

new vehicle trips would be generated at the adjacent intersection and no noise from building construction would occur.

The No Project/No Build Alternative would not result in any of the adverse effects identified for the project in the Initial Study or this EIR.

No new construction would occur under the No Project/No Build Alternative; therefore, there would not be any incremental increase in traffic at the intersection of High Street and MacArthur Boulevard. Additionally the less-than-significant impacts identified relative to aesthetics, air quality and greenhouse gas (GHG) emissions, hazards and hazardous materials, and noise would not occur.

2. Reduced Development/Mitigated Alternative

The Reduced Development/Mitigated Alternative assumes that the project site would be developed with 29 less residential units and one less building floor, for a total of 86 senior housing units within a 3-story building. This alternative is considered to compare the impacts of developing a smaller building envelope than what is anticipated under the proposed project. Under the Reduced Development/Mitigated Alternative, development would occur on the project site, but to a lesser degree than the proposed project. The site and building would be developed with 86 senior residential units and 3,446 square feet of commercial space.

Implementation of this alternative would result in impacts similar to the proposed project for all of the environmental topics found to be less than significant and focused out of the EIR in the In the Initial Study, although the effects would be incrementally less.

Like the proposed project, the Reduced Development/Mitigated Alternative would be subject to Standard Conditions of Approval and would result in less-than-significant aesthetic impacts; however, the overall building scale and massing of the building would be less than the proposed project because the building would be one floor less in overall height. Like the proposed project, this alternative would be visible from the MacArthur Freeway, a scenic highway. Under this alternative the building would be one less story in height, so less of it would be visible to freeway motorists. The existing billboard would be removed and the existing vacant lot would be developed with a new mixed-use structure. Changes to the scenic character of the site would be modified from their current condition, as is the case with the proposed project. This alternative would result in essentially the same less-than-

significant aesthetic impacts as the project, although the reduced building height would slightly reduce the level of the less-than-significant impact.

The Reduced Development/Mitigated Alternative would result in the same less-than-significant impacts, although slightly reduced, identified for the proposed project related to air quality and GHG emissions, hazard and hazardous materials and noise.

Traffic trips expected to be generated by this alternative would be less than the proposed project because it involves less development. Even though the trips would be reduced, like the proposed project, this alternative would result in the same LOS calculations as the proposed project and no significant impacts would result.

3. Commercial Alternative

The Commercial Alternative assumes the project site is developed with a single-story commercial building. Based on the current zoning provisions for building height, setbacks, and parking, this alternative assumed the project site is developed with a 6,000 square-foot building, which is the maximum size that could be accommodated without triggering more significant traffic impacts. For purposes of this analysis it is assumed that the building would be occupied by multiple commercial tenants and the required parking would be provided in a surface parking lot.

Implementation of this alternative would result in impacts similar to the proposed project for all of the environmental topics found to be less than significant and focused out of the EIR in the In the Initial Study, although the effects would be incrementally less.

Like the proposed project, the Commercial Alternative would be subject to Standard Conditions of Approval and Design Review and would result in less-than-significant aesthetic impacts similar to the proposed project as it is assumes the design would be of high quality and would not substantially degrade the character of the area or significantly impact public views. However, given the proposed height would be reduced from four stories to one story the overall building scale and massing of the building would be significantly smaller than the proposed project. The majority of the building would not likely be visible from the MacArthur Freeway. As a result it would reduce the project's less-than-significant impacts on scenic vistas and the scenic highways, MacArthur Freeway, to essentially no impact.

This alternative would involve a lower profile structure on the project site, which is more consistent with the current fabric of the neighborhood. However, like the proposed project, the structure would be new and would change the character of the existing vacant and undeveloped site. Although the building's mass and height would be substantially lower than the proposed project, implementation of the commercial alternative would not achieve many of the beneficial urban design and character effects that would be achieved by the proposed project. In addition, it would entail a surface parking lot rather than parking incorporated inside the building. Like the proposed project, this alternative would result in less-than-significant adverse aesthetic impacts.

The Commercial Alternative would also result in similar less-than-significant impacts to hazards and hazardous materials and noise; the implementation of the City's Standard Conditions of Approval would reduce potential significant impacts.

The Commercial Alternative would potentially have fewer air quality and GHG impacts than the proposed project because this alternative involves less building material, less construction time and equipment, and less overall building area. As a result, this alternative would likely result in fewer GHG emissions during construction and during operations.

The Commercial Alternative would result in the same trip generation as the proposed project. Under this alternative, the 6,000 square foot multi-tenant commercial building would result in 23 AM Peak hour trips and 35 PM Peak hour trips. As a result the Commercial Alternative would not result in more significant transportation and traffic impacts than the proposed project.

The Commercial Alternative would result in the same less-than-significant impacts identified for the proposed project related to hazards and hazardous materials and noise; incrementally less air quality and GHG emissions and less-than-significant aesthetic impacts; and would result in the same transportation and circulation impacts (intersection operation at High and MacArthur).

C. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of the environmentally superior alternative in an EIR. The No Project/No Build Alternative is considered the environmentally superior alternative in the strict sense that environmental impacts associated with its implementation would be the least of all the scenarios exam-

ined (including the High & MacArthur Mixed-Use project). To maintain the project site at its current conditions would avoid each of the impacts that would result from the High & MacArthur Mixed-Use project. In cases like this where the No Project is the environmentally superior alternative, CEQA requires that the second most environmentally superior alternative be identified. Comparison of the environmental impacts associated with each alternative as described above, indicates that Reduced Development/Mitigated Alternative would represent the next-best alternative in terms of the fewest significant environmental impacts. This alternative would result in further reducing the already less-than-significant impacts as the proposed project.

VI. CEQA REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter discusses the following types of impacts that could result from implementation of the High and MacArthur Mixed-Use project: growth-inducing impacts, significant unavoidable environmental impacts, significant irreversible changes, cumulative impacts, and effects found not to be significant.

A. GROWTH-INDUCING IMPACTS

This section summarizes the project's growth-inducing impacts on the surrounding community. Consistent with section 1512b.2 (d) of the CEQA Guidelines, a project is considered growth-inducing if it could directly or indirectly foster economic or population growth or the construction of additional housing. Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped. Typically, redevelopment projects on infill sites that are surrounded by existing urban uses are not considered growth-inducing because redevelopment by itself usually does not facilitate development intensification on adjacent sites.

The proposed project would not have growth inducing effects. The project site is located in a developed area fully served by utilities and there are no significant undeveloped areas adjacent to the project site. The proposed project would add 115 senior residential units and associated residents and approximately 115 to 230 new senior residents. The proposed project might also result in indirect population growth, which could result from both the new construction-related jobs generated by the proposed project and the approximately 14 new jobs that would be created by the staffing or management of the senior housing and commercial spaces. Although the creation of these jobs could cause new employees to move to Oakland, the population growth resulting from these jobs would not be substantial relative to the population growth projected to occur in Oakland.

The proposed project would be developed on an infill site in an existing urbanized area in Oakland, and as such would not require the extension of utilities and roads into exurban areas, and would not directly or indirectly lead to the development of greenfield sites in the city.

The provision of additional senior housing to this area of Oakland would allow more elderly residents to live in an existing urbanized area and could reduce development pressures on exurban and open space in the greater Bay Area. In addition, as a relatively dense, mixed-use development, the proposed project could help reduce adverse impacts to the environment associated with automobile use. Therefore, the population growth that would occur as a result of project implementation would not be considered substantial or adverse.

B. SIGNIFICANT IRREVERSIBLE CHANGES

CEQA requires that EIRs assess whether the proposed project could result in significant irreversible changes to the physical environment. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. The CEQA Guidelines discuss three categories of significant irreversible changes that should be considered. Each is discussed below.

1. Changes in Land Use which Commit Future Generations

The proposed project would allow for the redevelopment of a triangular shaped 0.93-acre parcel of land located in Central Oakland, on the edge of the Laurel Business District. The project site, which is surrounded by urban development on all sides, is designated for additional growth, especially housing, commercial and mixed-use development in the plans and policies of the City of Oakland, including the General Plan and recently adopted Housing Element. Because the proposed project would occur on an infill site on land designated for a mixture of land uses, it would not commit future generations to a significant change in land use.

2. Irreversible Damage from Environmental Accidents

No significant irreversible environmental damage, such as what could occur as a result of an accidental spill or explosion of hazardous materials, is anticipated due to implementation of the proposed project. Furthermore, compliance with federal, state and local regulations, of the City of Oakland, and the implementation of Standard Conditions of Approval and Mitigation Measures identified in Section IV.C, Hazards and Hazardous Materials, would reduce to a less-than-significant level the possibility that hazardous substances within the project site could cause significant environmental damage.

3. Consumption of Nonrenewable Resources

Consumption of nonrenewable resources includes the use of non-renewable energy sources, conversion of agricultural lands, and loss of access to mining reserves. Because the site has not been used for mineral extraction, loss of access to any minerals that historically occurred on-site would not be considered significant. Implementation of the High and MacArthur Mixed-Use Project would require electricity, natural gas, and possibly other forms of energy. However, the scale of such consumption for the proposed uses would be typical for a residential and commercial infill development of this size. The proposed project would incorporate energy-conserving features, as required by the Uniform Building Code and the California Energy Code (Title 24, Part 6). Additionally, the placement of the project on a site within an urban area near City services and easily accessible transit and regional roadways would facilitate the increased use of public transit and reduce the overall vehicle miles travelled, further reducing non-renewable energy consumption associated with the single-occupant vehicles and total vehicle miles travelled. The project would not convert land used for prime agriculture to residential and public uses, as no agricultural uses or farmland are present within or adjacent to the project site.

C. SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

As discussed at the end of each topical section in Chapter IV, Setting, Impacts, Standard Conditions of Approval and Mitigation Measures, the project would not significantly contribute to any significant and unavoidable impacts. The Housing Element EIR identified the following significant impact related to odor:

> **AQ-5.** Residential development at specific project sites proposed under the Housing Element could expose occupants to substantial/frequent odor nuisance resulting from odors emitted by strong local sources. (SU)

Through certification of the Housing Element, the City Council adopted a statement of overriding considerations for this impact. However, as discussed in Chapter IV.B, Air Quality, there is no significant odor impact for this project.

D. CUMULATIVE IMPACTS

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound or in-

crease other environmental impacts."[1] Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts that are individually limited, but cumulatively considerable. Per Section 15065(a)(3) of the CEQA Guidelines, "cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects. Cumulative effects of the proposed project are discussed in the respective topics in Chapter IV, Settings, Impacts, Standard Conditions of Approval, and Mitigation Measures.

E. EFFECTS FOUND NOT TO BE SIGNIFICANT

Meetings among representatives of the City of Oakland departments involved in project planning and review and consultants for the City were held to preliminarily determine the scope of the EIR. In addition to these meetings, a Notice of Preparation (NOP) was circulated on May 18, 2011, and a public scoping session was held for the project on June 15, 2011. Written comments received on the NOP and public comments received during the scoping meetings were considered in the preparation of the final scope for this document and in the evaluation of the proposed project.

The environmental topics analyzed in Chapter IV, Setting, Impacts and Mitigation Measures, represent those topics that generated the greatest potential controversy and expectation of adverse impacts among City staff and members of the public. The following topics were excluded from discussion in the EIR because it was determined in the Initial Study and during the scoping phase that these impacts would be less-than-significant: Agricultural/Timber Resources; Biological Resources; Cultural Resources; Geology, Soils, and Seismicity; Land Use and Planning; Hydrology and Water Quality; Population and Housing; Mineral Resources; Public Services; Recreation; and Utilities and Service Systems. A detailed description of the project's impacts related to each of these topics is provided in the Initial Study (see Appendix A incorporated herein by reference).

[1] *CEQA Guidelines*, Section 15355.

VII. REPORT PREPARATION AND REFERENCES

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B. REFERENCES

Abrams & Associates, 2010. *Project Traffic Analysis.*

ACEH, 1999. *Fuel Leak Site Case Closure for the Former Chevron Service Station #9-3676, 4300 MacArthur Blvd, Oakland, CA*. March 2.

ACEH, 2006. *Fuel Leak Case RO0002877, 4311-4333 MacArthur Blvd., Oakland, CA 94619, Global ID # T0600193302*. December.

ACEH, 2008. *Fuel Leak Case No. RO0002877 and GeoTracker Global ID T0600193302, Roberts Tires, 4311-4333 MacArthur Boulevard, Oakland, California 94619*. April 24.

ACEH, 2009a. *Fuel Leak Case No. RO0002877 and GeoTracker Global ID T0600193302, Site Roberts Tires, 4311-4333 MacArthur Blvd, Oakland, California 94619 – Groundwater Monitoring Requirements*. July 24.

ACEH, 2009b. *Fuel Leak Case No. RO0000409 (GeoTracker Global ID T0600102279), Unocal #1156, 4276 MacArthur Boulevard, Oakland, CA 94619 and RO0000486 (GeoTracker Global ID T0600101261), Shell #13-5701, 4255 MacArthur Blvd., Oakland, CA 94619 – Comingled Plume*. October 14.

AC Transit, Oakland, CA, 2011. *Comment Letter from Tina Spencer, Director of Service Development and Planning*. June 17.

AC Transit, Oakland CA. *Bus Stop Policy, Board Policy No. 508.* Adopted December, 1989, Amended October, 2002.

ALUC of Alameda County, 1986. *Alameda County, Airport Land Use Policy Plan.* July 16.

Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*. May.

Bay Area Air Quality Management District (BAAQMD), 2010. *Tables for Air Toxics Evaluation During Construction.* May.

Bay Area Air Quality Management District (BAAQMD), 2012. Response to Public Records Requests Numbers: 2012-05-0207; 2012-05-0206; 2021-05-0205; 2012-05-0204; and 2012-05-0203 dated May 29.

CAL FIRE, 2008. *Very High Fire Hazard Severity Zones in LRA*. Recommended by CAL FIRE on September 3.

California Code of Regulations (CCR), Title 8, §5192.

California Education Code, §17210 through §17224.

California Energy Commission (CEC), 2004. Water Energy Use in California (online information sheet) Sacramento, CA, August 24, http://energy.ca.gov/pier/iaw/industry/water.html, accessed July 24, 2007.

California Health and Safety Code, Chapter 6.11, §§25404-25404.8.

Caltrans, 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*

Caltrans, Accessed February 1, 2012 via http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/.

Cambria Environmental Technology, Inc., 2005. *Subsurface Investigation Report, Former Shell Service Station, 4255 MacArthur Boulevard, Oakland, California*. June 6.

CEQA Guidelines, Section 15355.

CEQA Guidelines, Section 15126.6.

CEQA Guidelines, Section 15126.6(b).

City of Oakland, 1974. *Scenic Highways, An Element of the Oakland Comprehensive Plan.* September.

City of Oakland, 2004. *General Plan*. November.

City of Oakland, 2007. *City of Oakland Master Plan*. December.

City of Oakland, 2010. *Housing Element 2007-2014,* Appendix C: Detailed Site Inventory. December.

City of Oakland Municipal Code Noise Ordinance, §17.120 and §8.18.

City of Oakland Municipal Code Ordinance 12152, § 1, 1999.

City of Oakland Planning and Zoning Division, 2008, *Conditions of Approval & Uniformly Applied Development Standards Imposed as Standard Conditions of Approval.*

Clearwater, 1999. *4331-39 MacArthur Blvd., Oakland, CA – Magnetometer Survey Results*. September.

Clearwater, 2000. *Table 1, Groundwater Sample Analytical Results, Former Roberts Tire, 4311-39 MacArthur Blvd, Oakland, California*. December.

Code of Federal Regulations, Title 29, §1910.120.

Delta Consultants, 2010. *Semi-Annual Summary Report – Fourth Quarter 2009 through First Quarter 2010, Fuel Leak Case No. RO0000409*. March.

Department of Transportation website: http://www.dot.ca.gov/hq/LandArch/scenic/faq.htm accessed November 9, 2011.

DTSC, 2002. *Removal Action Workplan for Soil, Roberts Tire Facility, Oakland, California*. June.

DTSC, 2005. Letter to ACEH regarding no further action related to soil contamination at Roberts Tire. April 28.

Engineering/Remediation Resources Group, Inc. (ERRG), 2002. *Final Removal Action Implementation Report, Roberts Tires, Oakland, California*. November.

FAA, 2009. Airport Data (5010) & Contact Information. Last revised on June 26. http://www.faa.gov/airports/airport_safety/airportdata_5010/. Accessed September 21, 2010.

Fitzpatrick, K., S. Turner and M. Brewer, ITE Journal, Institute of Transportation Engineers, Washington D.C., 2007. *Improving Pedestrian Safety at Unsignalized Roadway Crossings*. May.

Highway Capacity Manual, Transportation Research Board, Washington D.C., 2000

Jonas & Associates, Inc., 1996. Phase I Environmental Site Assessment Report, Pacific Gas & Electric Company, Former High Street Substation, 3120 High Street, Oakland, California 94619. July 19.

JMK, 2003. *Phase II Environmental Site Assessment Report, Vacant Lot, 4311-4333 MacArthur Boulevard, Oakland, California 94619*. March.

Municipal Code, Chapter 17.80.

Oakland Fire Prevention Bureau, 2010. *Wildfire Prevention District Map*. http://www.oaklandnet.com/wildfirePrevention/docs/WPADistrictMap.pdf. Accessed on September 22.

Office of Health & Environmental Assessment (OEHHA), 2003.

Public Resource Code, §21151.4.

Questa Engineering Corp. (Questa), 2004. *Removal Action Sampling and Testing Results, 4311-4333 MacArthur Boulevard, Oakland, California*. December.

Questa Engineering Corp.(Questa), 2006. *Subsurface Investigation of Groundwater and Vadose Zone Soil at 4311 to 4333 MacArthur Boulevard, Oakland, California*. November 14.

Regional Water Board, (Revised) 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. May.

State Water Resources Control Board GeoTracker, August 30, 2012, http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600193302.

Stephen B. Corcoran, Metro Transportation Group, Hannover Park, IL, 1996. *Senior Housing Trip Generation and Parking Characteristics*.

The Sanborn Library, LLC, 1925. Sanborn Map.

Title 5 CCR §14010.

Transportation Research Board, 2000. *Highway Capacity Manual*, Washington D.C.

United Nations Environment Programme (UNEP), 2007. Buildings and Climate Change: Status, Challenges and Opportunities, Paris, France.

United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment.* May.

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Peter Chun, Transportation Services Division, City of Oakland. Personal communication with Abrams Associates Traffic Engineers. July 26, 2010.

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Thomas Packard, Landscape Associate, Caltrans Office of Landscape Architecture. Personal communication with Urban Planning Partners, June 1, 2012.