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Environmental Checklist Form
Prepared Pursuant to the California Environmental Quality Act (CEQA)

A. PROJECT DESCRIPTION

1. **Project title**:
   Castro Valley / Baker Road Townhomes Project

2. **Project location**: The 1.13-acre Project site is located within the unincorporated community of Castro Valley in Alameda County and includes two parcels with the addresses of 20785 and 20957 Baker Road. The site is on the west side of Baker Road approximately 220 feet south of its intersection with Castro Valley Boulevard, and it extends westward to Rutledge Road, a private street to which the site does not have rights of access. The Assessor Parcel Numbers (APNs) for the two Project parcels are 84A-16-5-9 and 84A-16-6-4. **Figure 1** shows the location of the site in the region and **Figure 2** depicts the Project site in its neighborhood context. **Figure 3** shows the two APNs on-site.

3. **Project sponsor's name and address**:
   Catalyst Development Partners
   18 Crow Canyon Court, Suite 190
   San Ramon, California 94583
   attn: Todd A. Deutscher, President
   (925) 579-1100

4. **General plan designation**:
   Central Business District:
   Residential-Downtown Medium Density

5. **Zoning**:
   Subarea 11, within the Castro Valley Central Business District Specific Plan

6. **Description of Project**:
   Overall Building Program

   The Project involves the demolition of existing structures, including a duplex and a single-family residence, the removal of a relatively small area of existing vegetation, and the construction of 20 for-sale, three-story townhomes on the 1.13-acre Project site. The Project site is currently two lots and would be subdivided into four lots to accommodate the Project. The resulting gross residential density of the Project site would be 19.7 dwelling units per acre. The townhomes would be arranged into two rows of two buildings along an east-west axis. Each of the four buildings would have five townhomes each. From Baker Road, vehicles would enter the driveway westbound and access garages, located on the first floor of each unit, north and south of the driveway. A hammerhead turnaround for mid-size service vehicles would be located at the west end of the site parallel to Rutledge Road. The rows of townhomes would be divided by common open space and pedestrian access running along a north-south axis through the center of the Project site. Pedestrian access would also be provided along the north and south sides of the townhomes. **Figure 4** shows the site plan for the Project and **Figures 5 and 6** show the front-facing elevations for the five-plex townhome buildings.

The proposed three-story townhomes would be 36½ feet in height. Four floor plans, Plan 1, Plan IX, Plan IY, and Plan 2, are proposed. Plan 1, Plan 1X, and Plan 1Y would include three bedrooms and three and one half bathrooms, and a two-car garage. Plan 2 would include four bedrooms and three and one half bathrooms, a staggered two-car garage and one covered guest parking space (i.e., three spaces total, with a guest space in front of one garage space). **Figures 7**, **8, 9**, and **10** show the four proposed floor plans. Floor Plan 1 would have a conditioned area of 1,936 square feet, Floor Plan 1X would have a conditioned area of 2,149 square feet, Floor Plan 1Y would have a conditioned area of 2,162 square feet, and Floor Plan 2 would have a conditioned area of 1,972 square feet. The total buildable area for the 20 townhomes would be 54,274 square feet. Each unit would also have an average of 360 square feet of private open space.

The project would have a front yard setback of 20 feet along Baker Road, a 26.8-foot setback at the rear along Rutledge Road, and a minimum 16.9-foot setback along the north and south side yards with an exception of the second and third stories which would be set back a minimum of 20.9 feet and 23.4 feet, respectively. **Figure 4** shows the site plan for the Project.

Open Space and Landscaping

The property would have approximately 4,162 square feet of usable common open space, including 2,972 square feet of common open space north and south of the alley and 1,190 square feet of bio-retention area on each side of the driveway, near Baker Road. Private usable open space consists of private yard areas and second floor deck areas totaling 6,775 square feet, amounting to an average of 360 square feet per unit. The total open space (common plus private) would total 11,360 square feet. **Figures 11, 12, and 13** depict the Preliminary Landscape Plans.

The Project would involve the removal of three existing non-native, ornamental trees dispersed throughout site. The Project site would be planted with approximately 70 trees on-site, primarily along the north and south ends of the property, and including four street trees along Baker Road and two trees along Rutledge Road. A preliminary landscape site plan that illustrates proposed tree placement sites and species to be planted is provided in **Figure 11**. Table 1 provides a summary of the Project's features.

Table 1: Project Summary

Site Features	
Site Area (acres)	1.13 (49,223 square feet)
Residential Density (units per acre)	19.7
Building Features	
Maximum Building Height (feet)	36'-6"
Number of Townhome Buildings	4
Total Residential Units	20
Unit Type	Three-story townhome
Unit Bed x Bath	Plan 1: 3 bedroom/ 3.5 bath Plan 1X: 3 bedroom/ 3.5 bath Plan 1Y: 3 bedroom/3.5 bath Plan 2: 4 bedroom/ 3.5 bath

Table 1: Project Summary (*continued*)

Building Area					
	No. of Units	**Conditioned Space per unit (square feet)**	**Total Conditioned Space (square feet)**	**Buildable Area per unit (square feet)**	**Total Buildable Area (square feet)**
Floor Plan 1	4	1,936	7,744	2,585	10,340
Floor Plan 1X	2	2,149	4,298	2,846	5,692
Floor Plan 1Y	2	2,162	4,324	2,933	5,866
Floor Plan 2	12	1,972	23,664	2,698	32,376
Total	**20**	**--**	**40,030**	**--**	**54,274**
Parking					
Resident Parking			40 spaces (2 spaces per unit), including 16 two-car garage spaces, and 24 spaces provided by staggered two-car garage		
On-site Guest Parking			14 spaces total, including 12 driveway spaces and 2 pull-in alley spaces		
Accessible to Disabled Persons			1 space (included in guest parking)		
Total On-site Parking			55 spaces		
Off-site Street Parking (Baker Street)			6 spaces		
Total Parking			**61 spaces**		
Open Space Area (square feet)					
Private Open Space					
Private yards (ground floor and 2nd floor deck area)			7,198 (an average of approx. 360 square feet per unit)		
Common Open Space					
Central Parks (2)			2,972		
Bio-retention areas (2)			1,190		
Total Common Open Space			**4,162**		
Total Open Space			**11,360**		

Site Access and Parking

Motor vehicles would access the Project site via a 20-foot wide driveway from Baker Road on the eastern side of the property at a new full-access driveway intersection, approximately across from an existing private roadway, and extend west along the middle of the Project site for its full length. The Project access driveway intersection with Baker Road would be single lane in, single lane out, and egress stop-controlled, with Baker Road traffic having the right-of-way. The internal roadway on the Project site driveway, for its approach to Baker Road could accommodate at

least one eastbound vehicle queueing to turn onto Baker Road. The entire length of the Project site and its driveway (approximately 275 feet would allow up to 11 vehicles to queue, but it is not expected that more than two or three vehicles would be exiting the site even during the morning peak hour in a five minute period; only 12 outbound trips are projected during the morning peak hour, as discussed in the Traffic and Transportation section of this IS/MND). The driveway would terminate at the western end of the property in a hammerhead configuration along the Rutledge Road frontage. The hammerhead would provide access for resident use, and access for garbage and utility trucks, but is not intended to meet Fire Department standards for a turnaround, and is not required to do so. In lieu of providing a hammerhead that meets Fire Department standards, and as recommended by the Fire Department, a sign would be placed on the driveway approximately 150 feet from Baker Road and where a new fire hydrant would be placed, stating "End of Fire Department Access Road."

In addition, the Project would include 40 garage spaces (two per unit, one covered) for residents as well as 21 guest parking spaces, including 12 driveway spaces, two regular head-in stalls, one ADA accessible head-in stall for guests, and six on-street spaces on Baker Road. Overall, the Project site would have 61 total parking spaces. Passenger vehicles/trucks would have a total of 26 feet between garage doors for backing. Small and mid-size trucks and emergency vehicles (e.g. ambulances or small fire engines), could use the hammerhead on the western side of the site to turn around. Refer to the Site Plan on **Figure 4.**

Utilities and Public Services

The Project would include the installation of a new sanitary sewer mainline and a water mainline on-site. Sewage service would be provided by the Castro Valley Sanitary District and water service would be provided by the East Bay Municipal Utility District. Onsite stormwater drainage would be managed by the future homeowners association. The County also regulates and would periodically inspect the on-site stormwater management system. Gas and electricity would be provided by Pacific Gas and Electric Company (PG&E). Fire protection services would be provided by the Alameda County Fire Department and the Project would be served by the Castro Valley Unified School District. Other utility services (e.g., phone, cable, TV, internet, etc.) are provided by AT&T, Comcast and/or other companies.

Drainage

The Project would include two 595-square foot bio-retention basins for stormwater drainage management approximately 5 feet west of the Baker Road frontage, located in the eastern "front yard" portion of the project site, on each side (north and south sides) of the proposed driveway / alley. The bio-retention areas are intended to collect stormwater runoff from the entire site and pre-treat or filter the water before it is released into the County's storm drain line in Baker Road. The bio-retention areas would be composed of two layers overlain on top of native subgrade material: 1) an approximately 12-inch layer of Class 2 permeable material (or equivalent), and 2) an approximately 18-inch layer of soil mix with an infiltration rate of five inches per hour. The top layer would be planted with grasses and other vegetation with water filtration properties. The bottom layer would have an approximately four-inch perforated subdrain pipe connected to a pump. The depth of ponding during a design storm event (as defined in Alameda County C.3 Guidance Document) would be no more than 12 inches. Other ancillary bio-retention cells may be included in the landscape areas throughout the site to meet the requirements outlined in the Alameda County *C.3 Stormwater Technical Guidance,* which provides guidance for developers to meet Provision C.3 of the Municipal Region Stormwater Permit.

Construction

Construction of the Project would occur over approximately 11 months, including three weeks for demolition and soil excavation and 10 months for vertical construction. The phases of construction would include demolition, site preparation, grading, utility installation, surface hardscape improvements, building construction, paving, and architectural coating. Demolition would involve removal of the existing duplex and one single-family residence on the Project site (see discussion below under "Existing and surrounding land uses and setting"). Site preparation would involve the removal of all existing vegetation on-site, including three trees.

Due to soil contamination from prior agricultural activities and potential risks of soil vapor intrusion from former underground storage tanks in the vicinity of the site, the applicant has prepared a *Work Plan for Site Characterization* (Work Plan) to assess potential soil contamination impacts to the site. The Work Plan includes the delineation of the vertical and lateral extent of soil contamination. Subsequently, the applicant prepared and submitted a *draft Remedial Action Plan* for review and approval by the Alameda Department of Public Health. The volume of soil with contaminants that exceeds screening levels will be disposed of at a licensed Class II non-hazardous waste facility (refer to Section 8, *Hazards and Hazardous Materials*). The draft Remedial Action Plan recommends Alternative 3, Excavation and Off-Site Disposal, which currently estimates 1,750 cubic yards of contaminated soil would need to be removed from the site over the course of a two- to three-week period. This analysis is more conservative in determining impacts and includes the maximum potential import and export under Alternative 2, Soil Containment/Capping-in-Place. Alternative 2 assumes approximately 1,770 cubic yards of export and approximately 2,510 cubic yards of clean soil will need to be imported to the site to backfill the open excavation. Refer to Section 8, Hazards and Hazardous Materials.

After soil remediation is complete and the site is balanced, site grading would commence for the proposed Project. Preliminary earthwork estimates include 1,065 cubic yards of cut and 1,750 cubic yards of fill, requiring 685 cubic yards of import. Excavation would be limited to cuts and fills of 2 to 3 feet in depth across the site, and underground utilities would be installed at 3 to 6 feet below grade. In addition to on-site construction activities, the Project could require off-site excavation to prepare trenches for connecting existing utilities in Baker Road and undergrounding overhead utility lines along Baker Road. Trench spoils gained from the utility work will be used on-site to make up for some of the required import; however, net export of soil is anticipated to be necessary.

7. **Existing and surrounding land uses and setting**:

The Project site is located at 20785 and 20957 Baker Road in an urbanized area of Castro Valley. The site encompasses 1.13-acre on two lots partially developed with a duplex and a single family residence at the northeast corner of the property (20785 Baker Road) with driveway access fronting Baker Road. The two lots are mainly undeveloped with broken asphalt and concrete, dirt, and scattered, disturbed ruderal vegetation. Three ornamental trees are located on the northern lot (20785 Baker Road), and thirteen ornamental trees are located along but outside of the adjacent property lines. The Project site is relatively level with an approximate elevation of 163 feet above mean sea level. Recalcitrant agricultural chemicals could be present in near-surface soils from previous agricultural activities on the northern parcel (20785 Baker Road). A former leaking underground storage tank was identified at the southern parcel (20957 Baker Road), and was subsequently removed from the site (ENGEO Inc. 2016). Refer to Section 8, *Hazards and Hazardous Materials*.

The site is bordered by other residential uses to the north, south and southeast, and commercial uses to the east and west. To the north along Baker Road is a multi-family apartment building,

beyond which, at the intersection with Castro Valley Boulevard, properties are predominately in commercial uses. To the south along Baker Road are predominately multi-family residential uses, with a limited number of single-family detached homes. Along Rutledge Way, bordering the Project site on the west are single and multi-family residences with commercial buildings near the intersection with Castro Valley Boulevard. The Castro Valley Moose Lodge and a multi-tenant commercial building is to the west across Rutledge Road. Along Castro Valley Boulevard between Anita Avenue and Lake Chabot Road, near the site are commercial properties including the Chabot Cinema movie theater, Spanky's restaurant and bar, and a range of fast food restaurants including Nations Giant Hamburgers and ToGo's Sandwiches, Burger King, Tofu House, Quizno's Sandwiches, and Starbucks Coffee, in addition to other retail businesses including Cellular City and Doucet Saloon. The Hayward Executive Airport is located approximately 3 miles southeast of the site. **Figures 14 and 15** show photographs of the Project site and **Figure 16** shows photos of the surrounding area.

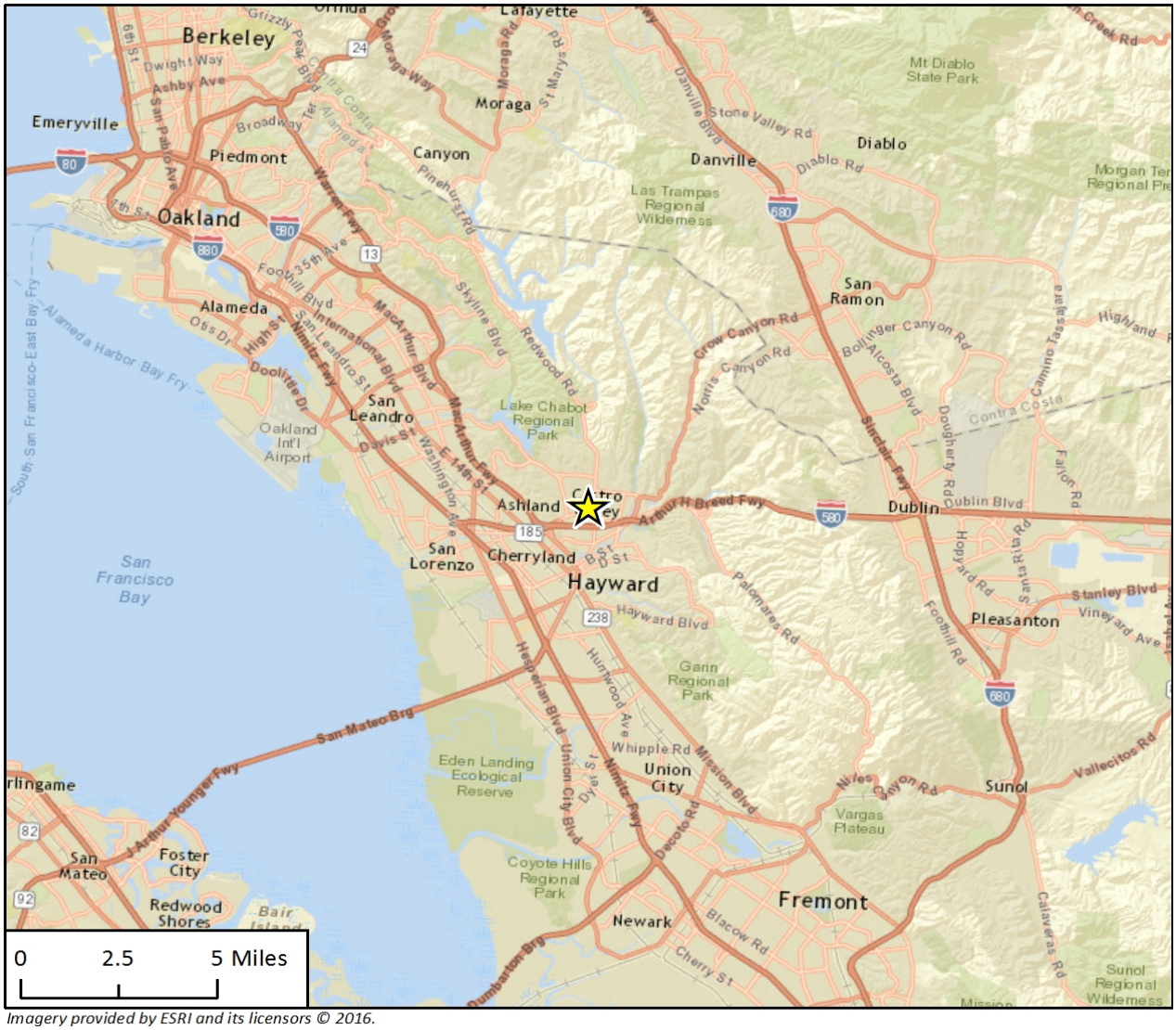
8. **Other public agencies whose approval may be required:**

The County of Alameda is the lead agency with the authority for approving or denying the Project. Approval from other public agencies outside the County is not required. However, various specific components or phases of the Project will require approval by different County agencies and departments, as outlined below:

Required Approvals

- Demolition permit for each structure to be demolished (potentially subject to review by the County Parks Recreation and Historical Commission approval and by Building Inspection Department)
- Improvement Plan for on-site improvements (i.e., driveways, curbs, stormdrains, etc.) (inspected by County Public Works Agency (PWA) Construction Inspection and approved by the County PWA)
- Stormwater Permit (C.6 and C.3)
- CLOMR-F (approved by FEMA with County endorsement)
- Roadway Encroachment Permit and Street Tree Permit
- Vesting Tentative Tract Map (to be approved by the Planning Commission), and Site Development Review (approved by the Planning Director)
- Mitigation Monitoring and Reporting Program for CEQA compliance (approved by the Planning Commission for the Tract Map)
- Demolition Permit (approved by the Building Inspection Department)
- Phase I and Phase II Environmental Site Assessments (reviewed by the County Environmental Health Department, with potential for oversight by the California State Department of Toxic Substance Control or DTSC)
- Encroachment permit from the Alameda County Flood Control and Water Conservation District for work within District right-of-way for construction, modification, or connection to District-maintained facilities.

Figure 1 Regional Location



Imagery provided by ESRI and its licensors © 2016.

Project Location

N

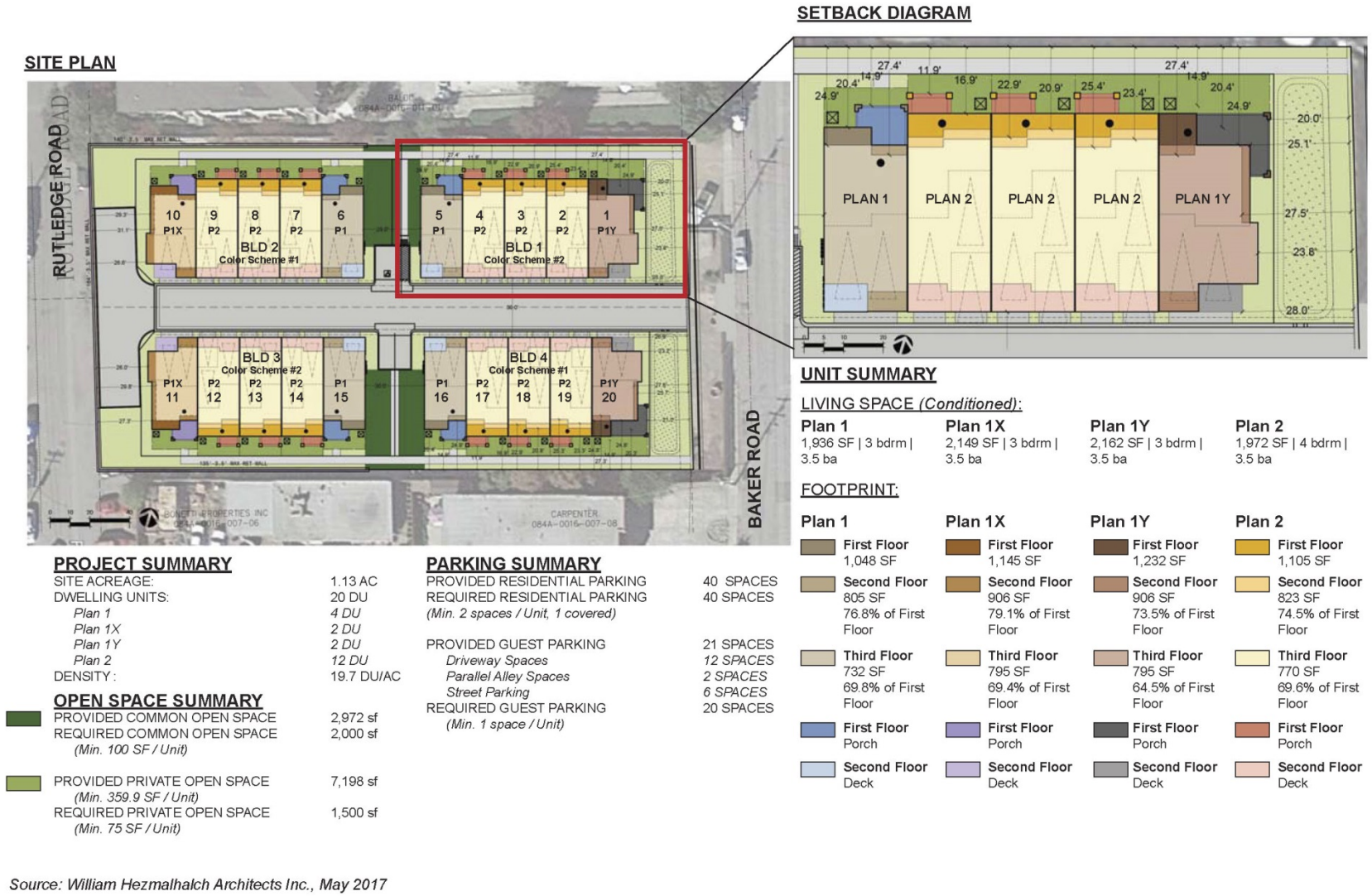
Fig 1 Regional Location

Figure 2 Project Location

Figure 3 Assessor Parcels on the Project Site

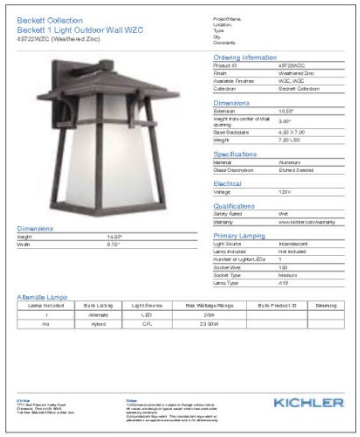
Imagery provided by Google and its licensors © 2017.

Figure 4 Proposed Site Plan



Source: William Hezmalhalch Architects Inc., May 2017

Figure 5 Exterior Building Elevations, Buildings 1 and 4



Light Fixture (Color Scheme #1)

Rear

Right

Typical wall light fixture location and illuminated address panel, see cut sheet for more information.

Left

Note: Artist's conception; colors, materials and application may vary.

Front
(Baker Road)

0 15 30 Feet

Source: William Hezmalhalch Architects Inc., April 2017

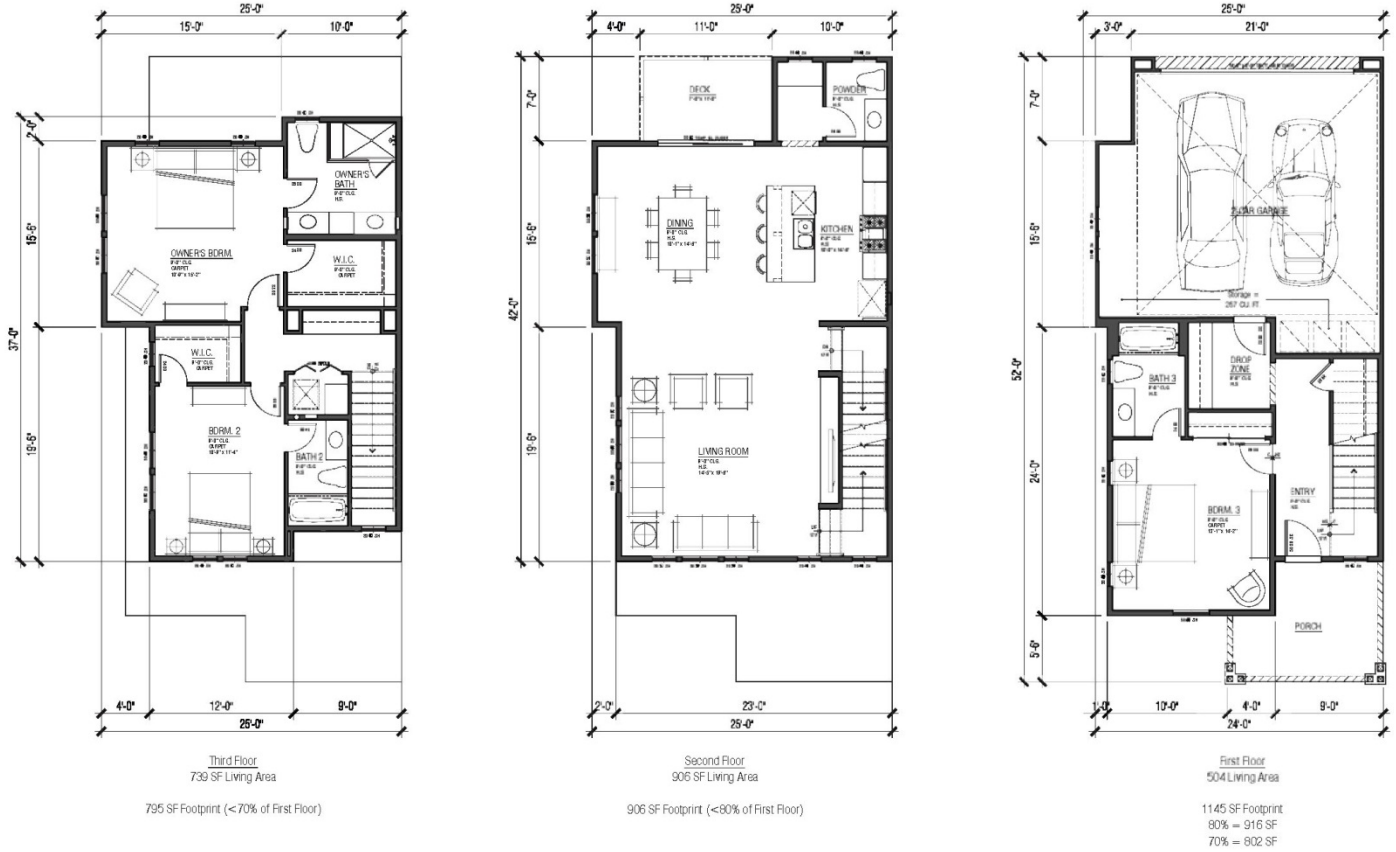
Figure 6 Exterior Building Elevations, Buildings 2 and 3

Source: William Hezmalhalch Architects Inc., April 2017

Figure 7 Floor Plans, Unit Floor Plan 1

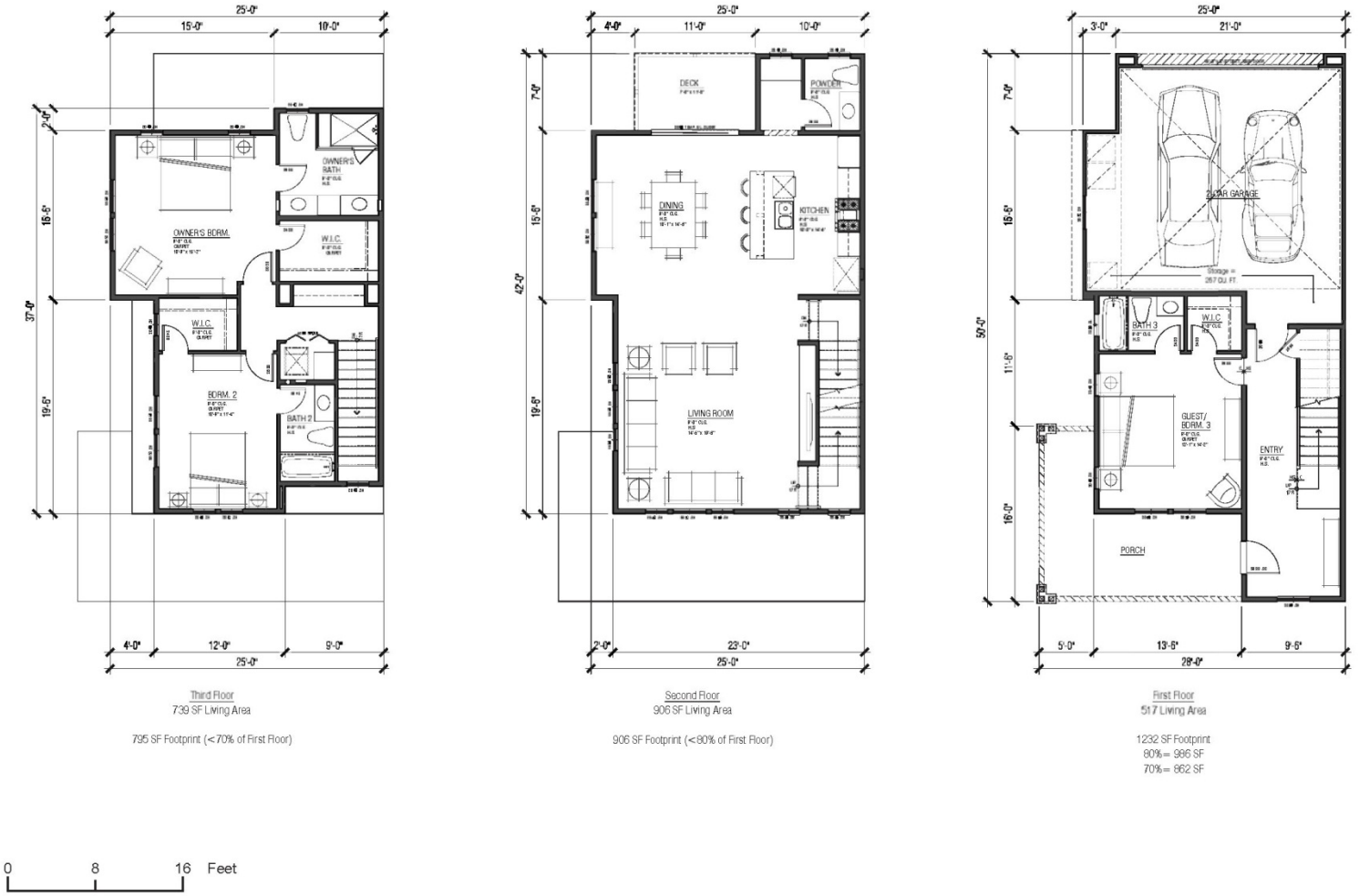
Source: William Hezmalhalch Architects Inc., April 2017

Figure 8 Floor Plans, Unit Floor Plan 1X



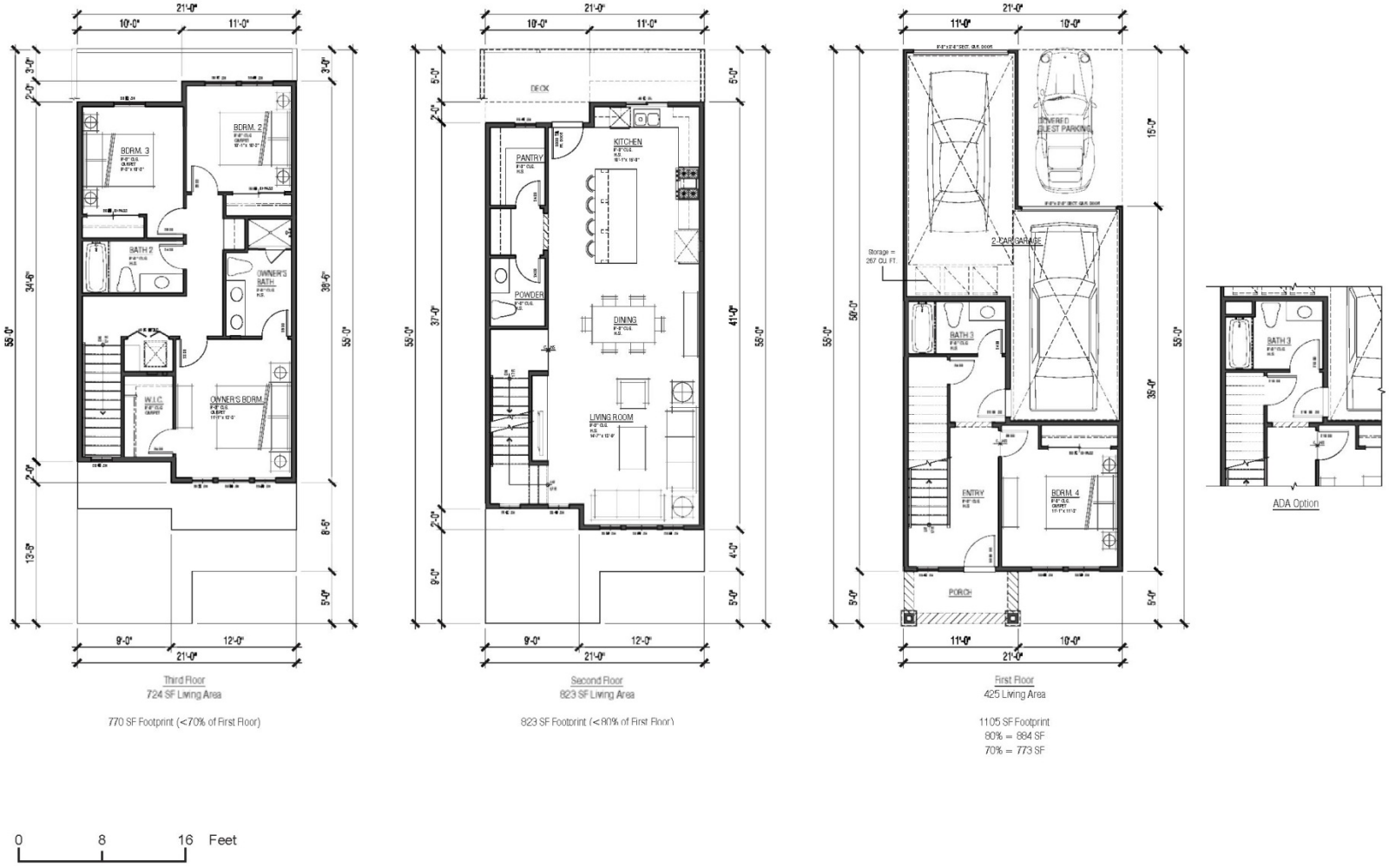
Source: William Hezmalhalch Architects Inc., April 2017

Figure 9 Floor Plans, Unit Floor Plan 1Y



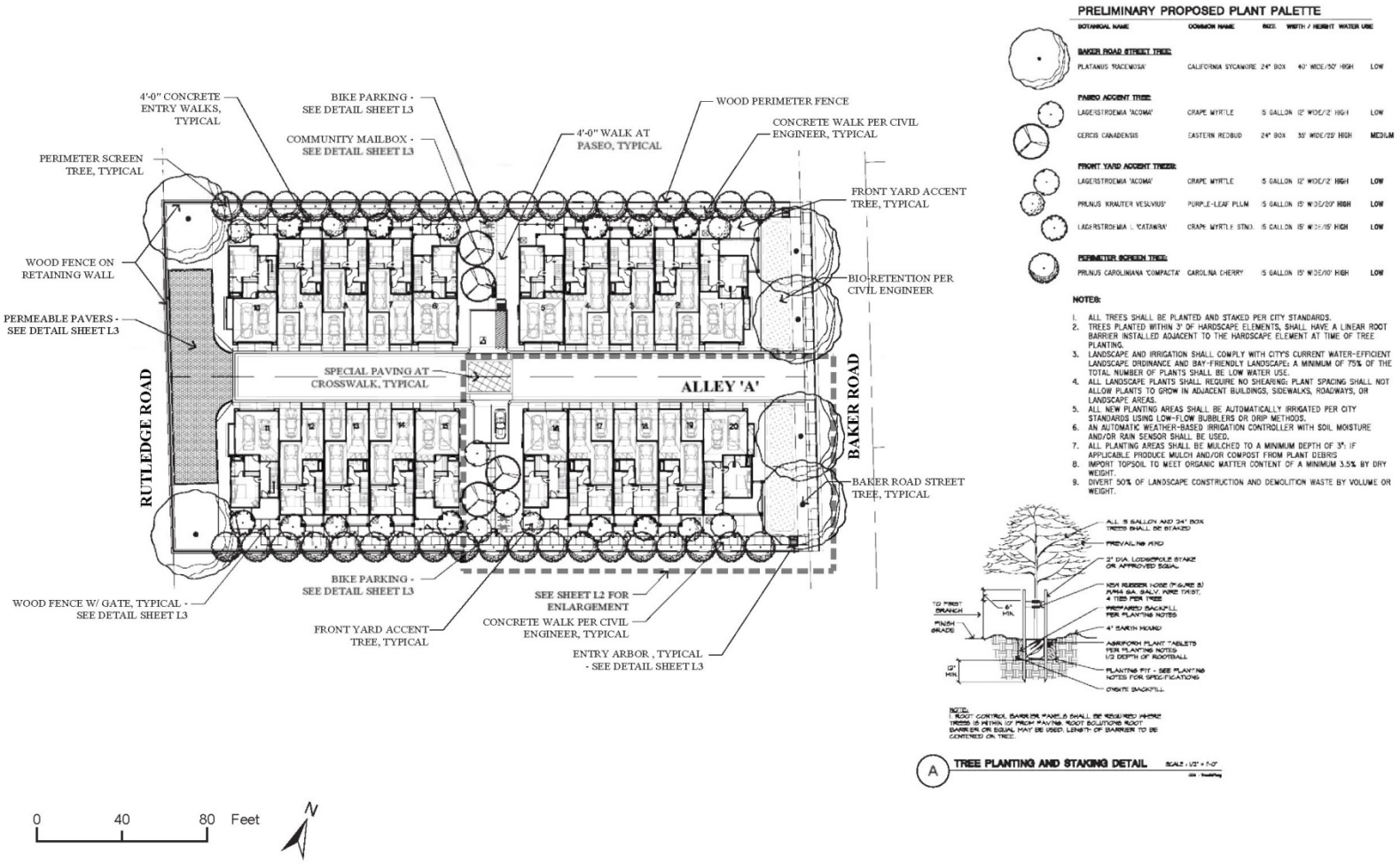
Source: William Hezmalhalch Architects Inc., April 2017

Figure 10 Floor Plans, Unit Floor Plan 2



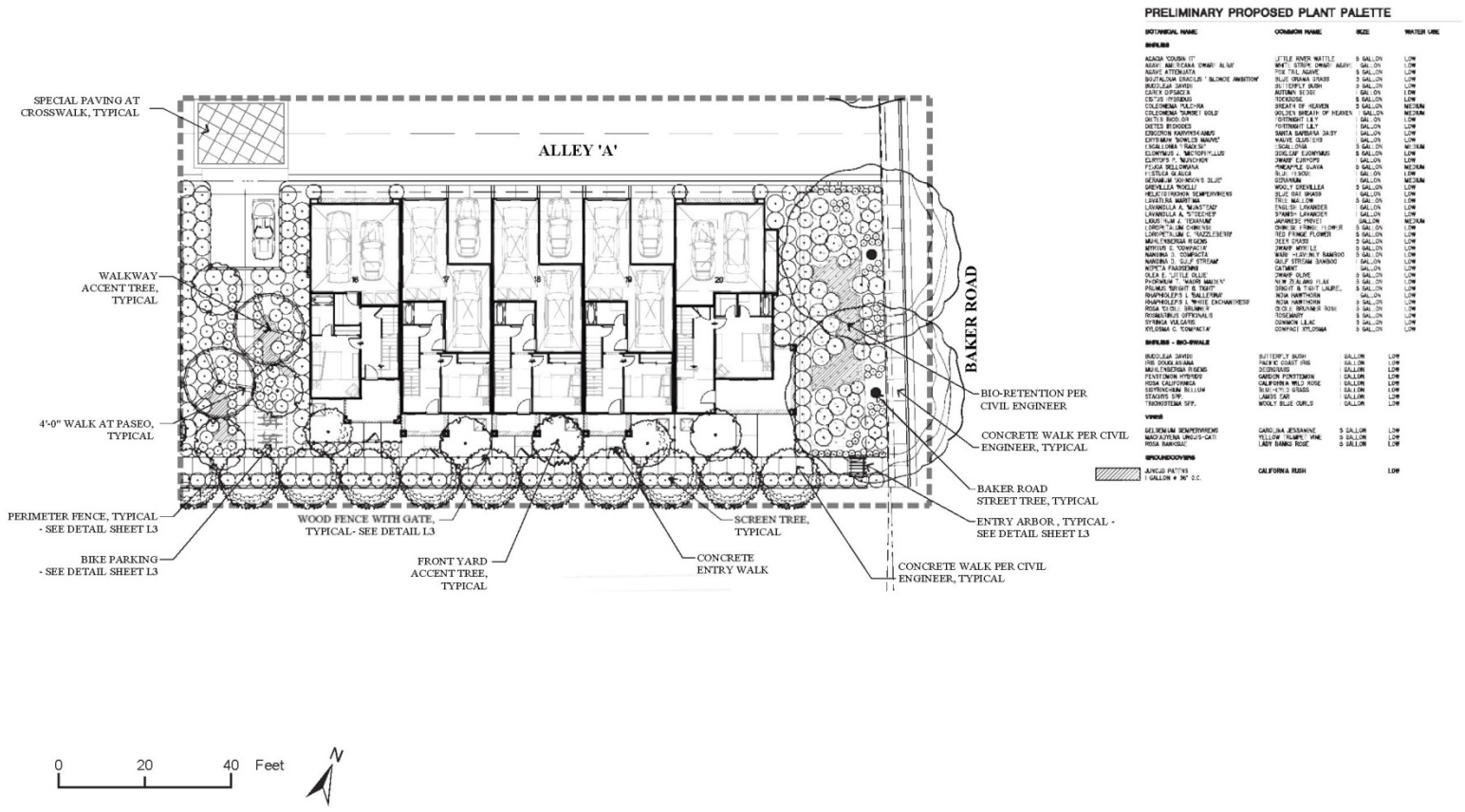
Source: William Hezmalhalch Architects Inc., April 2017

Figure 11 Preliminary Landscape Plan



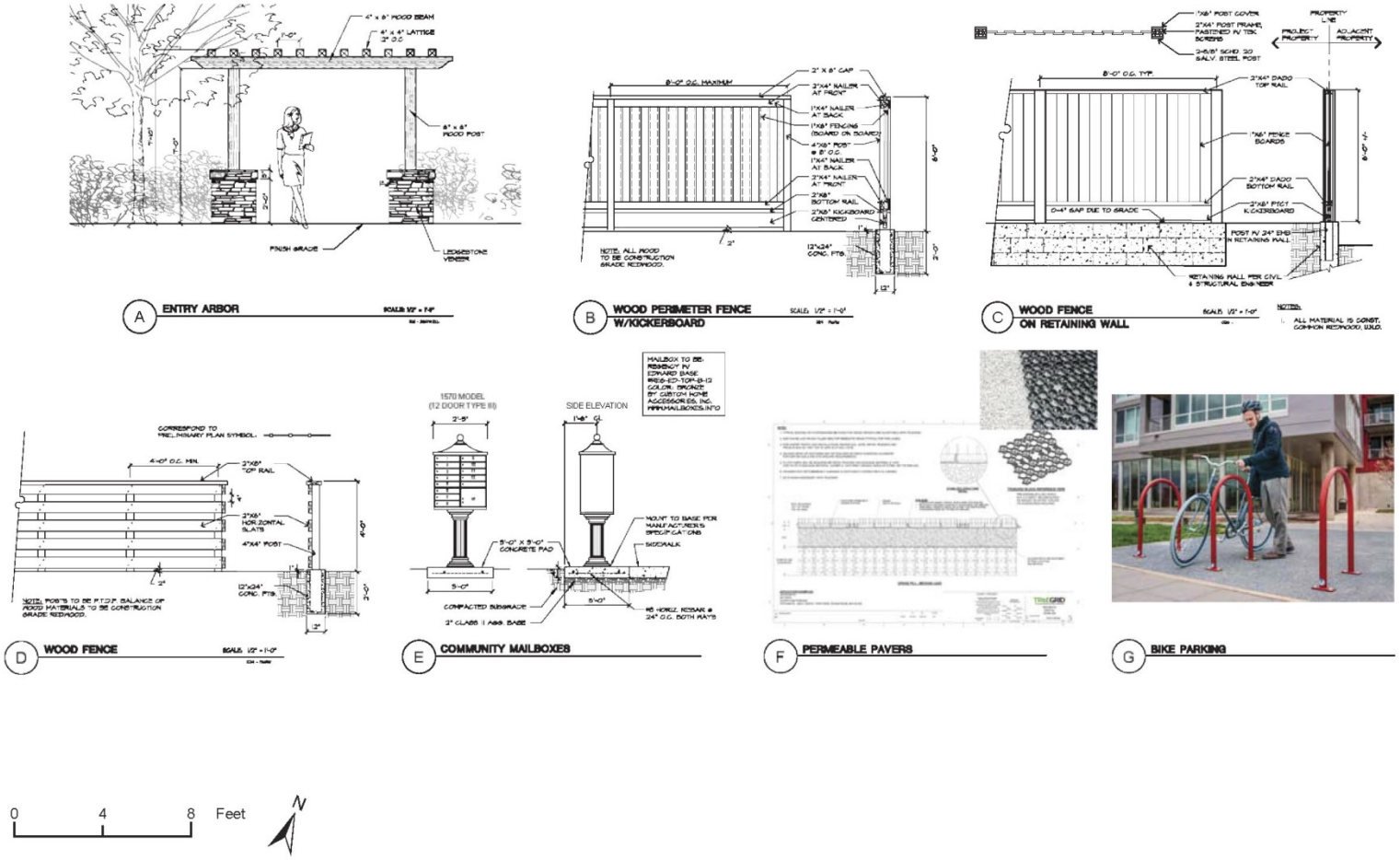
Source: William Hezmalhalch Architects Inc., April 2017

Figure 12 Preliminary Landscape Plan Enlargement (1 of 2)



Source: William Hezmalhalch Architects Inc., April 2017

Figure 13 Preliminary Landscape Plan Enlargement (2 of 2)



Source: William Hezmalhalch Architects Inc., April 2017

Figure 14 Site Photos

Photo 1: Entrance to the project site along Baker Road. Looking west across Baker Road to 20957 Baker Road.

Photo 2: From Baker Road, view looking west to 20785 Baker Road.

Figure 15 Site Photos

Photo 3: View looking northwest from 20957 Baker Road.

Photo 4: Looking southwest from Baker Road to 20957 Baker Road.

Figure 16 Surrounding Area Photos

Photo 5: Off-street parking along Rutledge Road west of the 20957 Baker Road site.

Photo 6: View looking northeast from Rutledge Road to 20957 Baker Road.

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☒ Biological Resources	☐ Climate Change and Greenhouse Gas Emissions	☒ Cultural Resources
☒ Geology /Soils	☒ Hazards & Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☒ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☐ Transportation and Traffic	☒ Tribal Cultural Resources	☐ Utilities / Service Systems
☐ Mandatory Findings of Significance		

C. LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Andrea Gray, Sr Planner — Signature

Sept. 1, 2017 — Date

D. EVALUATION OF ENVIRONMENTAL EFFECTS

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 17 different broad environmental categories, such as air and water quality, biological resources, climate change, cultural resources, land use, public services, noise and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. The sample questions are meant to be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential environmental impacts that are not listed in the checklist must also be considered. The sample questions are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

Each Checklist question requires a "yes" or "no" reply to indicate if the analysis or assessment (or an available reference document) shows that the Project will or will not have a potentially significant environmental impact on the subject aspect of the environment. However, there are three possible types of "no" responses, including: "NO: Less Than Significant with Mitigation", which means that potentially significant impacts would clearly be avoided or reduced to an acceptable level by changes to the Project or mitigation measures that the Project proponent and the Lead Agency have agreed to; "NO: Less Than Significant Impact", which means that while there may have been concerns about possible impacts that require analysis, the "threshold of significance" is not exceeded and the impact is not significant; and "NO: No Impact", which means that for clearly evident reasons documented by a map, reference document, the nature of the Project or the setting, the specific kind of environmental impact addressed by the question is not possible or would be nearly insignificant. The following describes in more detail the four different possible answers to the questions in the Checklist, and the types of discussions required for each response:

a) YES: Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and Project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the Project will have a potentially significant impact of the type addressed by the question.

   CEQA requires that if the analysis prompted by the Checklist results in a determination that the Project will have one or more potentially significant environmental impacts (and the Project proponent does not agree to changes or mitigation measures that would assure the subject impact can be avoided or reduced to less than significant levels, an environmental impact report (EIR) is required. In such instances, the discussion may be abbreviated greatly if the Lead Agency chooses to defer the analysis to preparation of the EIR. However, if the analysis indicates that all such impacts can be avoided or mitigated to less-than-significant levels, a Mitigated Negative Declaration can be prepared and this column will not be used for any question.

b) NO: Less Than Significant With Mitigation. Checked if the discussion of existing conditions and specific Project characteristics, also adequately supported with citations of relevant research or documents, determine that the Project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the Project, that the Project applicant or proponent has agreed to, such impacts will be avoided or reduced to less-than-significant levels.

c) NO: Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific Project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the

effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

d) NO: No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the Project or its location (e.g. the Project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to Projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported Project-specific factors or general standards (e.g., the Project will not expose sensitive receptors to pollutants, based on a basic screening of the specific Project).

The discussions of the replies to the Checklist questions must take account of the whole action involved in the Project, including off-site as well as on-site effects, both cumulative and Project-level impacts, indirect and direct effects, and construction as well as operational impacts. Except when a "No Impact" reply is indicated, the discussion of each issue must identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce the impact to less than significance, with sufficient description to briefly explain how they reduce the effect to a less than significant level.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D) of the Guidelines). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

1. AESTHETICS Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect on a scenic vista?			x	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				x
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			x	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			x	

1a. Scenic Vistas

The Project site has frontage on Baker Road and Rutledge Road, in a generally flat, urbanized area of Castro Valley. Baker Road and Rutledge Road run in the north-south direction and intersect with Castro Valley Boulevard, a larger road approximately 230 feet to the north. Neither Baker Road nor Rutledge Road is designed as a scenic corridor or scenic thoroughfare in the *Alameda County General Plan Scenic Routes Element*. As shown in Photo 6 of **Figure 16**, a partial, distant view of the East Bay hills is visible through the project site from Rutledge Road, and the project would further obstruct these views. However, this distant view is largely blocked under current conditions by existing mature trees and surrounding development, and the additional obstruction would not be unusual. The *Castro Valley General Plan* (CVGP) places emphasis on visual protection of scenic vistas on the community's hillsides and canyons. For example, Chapter 5.1, Natural Setting, states that these features are an integral part of its community character, and preserving these views is important as infill development occurs. More specifically, Policy 5.1-1, Creative Site Design, states, "*Only allow residential development on or near hillsides, canyons, and creeks when such development employs creative site design, landscaping, architecture that blend with the characteristics of each location and surroundings, and offer superior design solutions*." The Project site is located in downtown Castro Valley, not in the surrounding hillsides, and is not identified as a priority area on Figure 7-2, Biological Overlay Zone; therefore, this Project would not be subject to Policy 5.1-1. The CVGP contains policies on design and development in the downtown core area, but they do not address scenic vistas. Although some scenic vistas may exist within a downtown core area such as a view along a boulevard toward a key community feature (including hillsides but also monuments, civic buildings or historic structures), the Project would be placed between two streets through which there is no such view.

The Project site is located in Sub Area 11—West, within the *Castro Valley Central Business District (CVCBD) Specific Plan.* Projects located in Sub Area 11—West are subject to design policies specific to site design for the purpose of minimizing impacts on adjacent residences through setbacks, height limitation, setbacks, and provision of access and parking. The CVCBD Specific Plan policies do not address scenic vistas.

The project would therefore not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

1b. Scenic Resources Within a State Scenic Route Corridor

Interstate Highway I-580, approximately 1,000 feet south of the site, is eligible for State designation as a scenic highway between Interstate 80 and Interstate 5 in the Central Valley (Caltrans 2016), but is not formally recognized as such. If the Project were to result in substantial damage to trees, rock outcroppings or historic buildings visible from I-580, that effect could be considered an adverse effect on scenic resources. However, there is a sound wall constructed along I-580 that conceals views of the site vicinity from the I-580 roadway, and there are no scenic features on the site. As discussed further in Section 4, *Biological Resources,* the Project site contains three ornamental, non-native trees that would be removed, and the existing buildings on the site are not deemed historic resources (see Section 6, Cultural Resources). Therefore, the project would not result in damage to scenic resources within a state scenic highway corridor, and there would be no impact.

NO: NO IMPACT

1c. Visual Quality

The Project site is currently developed with a duplex and a single-family residence as shown in **Figure 3**. As shown in **Figure 15,** the rest of the site is vacant with sparse vegetation and mature trees. The Project would involve replacement of the existing one-story structures and vegetation with a residential complex featuring 20 three-story townhouses, common open space, pedestrian walkways, a driveway, and a central alley. This would substantially alter the visual character of the site. However, the townhome units would be generally compatible in height and appearance with the surrounding neighborhood, which has one- and two-story single-family buildings, as well as three-story buildings north and south of the site. As shown in the renderings of unit facades on **Figures 5 and 6**, units would be painted in neutral tones, such as greys, browns, and shades of off-white. This would blend with the palette of the surrounding residential structures, many of which are painted in earth tones, such as browns, pale blues, greys, and beige. The site would be landscaped with 70 new trees, 2,972 square feet of common open space and 7,198 square feet of private open space.

As discussed in Section 10, *Land Use and Planning*, the Project would have a density of approximately 19.7 units per acre, which is consistent with the site's zoning standards. The Project would also be required to comply with adopted design guidelines for residential projects in the unincorporated communities of West Alameda County, including aesthetic considerations such as avoiding boxy forms and large unrelieved surfaces, respecting adjacent buildings in terms of building height and scale, articulating surfaces on private frontages, avoiding the use of different architectural styles, and providing sufficient setbacks to provide adequate light, air, and privacy (Alameda County 2016). Therefore, although the Project would alter the existing visual character of the site, it would do so in a manner consistent with applicable development policies and aesthetic guidelines, and generally consistent with the scale and character of surrounding development. Impacts to the aesthetic quality of the site would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

1d. Light and Glare

The Project site is located in a developed residential and commercial area in an urban environment with a relatively high level of ambient light from streetlights, vehicle headlights and residential and commercial development. The Project would include outdoor light sources typical of residential uses for the safety of on-site residents, vehicle traffic, bicyclists, and pedestrians. Traffic associated with the Project, such as resident trips to and from the site, would generate light from headlamps and glare from auto surfaces and windows. Townhome windows would not be expected to create adverse glare during the day by reflecting sunlight. The Project developer would be required to comply with Alameda County standard conditions of approval that apply to the placement, shielding, height, and diffusion of light fixtures, which would limit light trespass on adjacent properties. In addition, the Project is subject to setback requirements in the Alameda County Residential Design Standards and Guidelines (2014), which would further reduce light

and glare impacts to adjacent properties. Project compliance with County standard conditions of approval and the Alameda County Residential Design Standards and Guidelines would reduce light and glare associated with the Project to levels consistent with surrounding residential uses. Impacts would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

2. AGRICULTURE AND FOREST RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				x
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				x
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				x
d) Result in the loss of forest land or conversion of forest land to non-forest use?				x
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				x

2a-e. Agriculture and Forest Resources

Castro Valley is a fully urbanized community. There is no State-designated farmland in Castro Valley (California Department of Conservation 2014) and no agricultural zones or forest lands on or near the Project site identified in the Castro Valley General Plan (Alameda County 2012). The proposed Project would have no impact upon agricultural or forest resources.

NO: NO IMPACT

3. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				×
b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?			×	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			×	
d) Expose sensitive receptors to substantial pollutant concentrations?			×	
e) Create objectionable odors affecting a substantial number of people?			×	

Setting

The Project site is within the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met and, if or when they are not met, to implement strategies to meet the standards.

The Basin is in nonattainment status for federal and state standards for ozone, as well as state standards for particulate matter (PM_{10} and $PM_{2.5}$) and the federal standard for 24-hour $PM_{2.5}$ (BAAQMD 2014). As a result, local jurisdictions within the Basin are required to implement strategies to reduce pollutant levels to recognized acceptable standards or avoid or mitigate new development Projects which would contribute to air pollution. The health effects associated with criteria pollutants are described in **Table 2**.

The 2017 Clean Air Plan (CAP) is the most recently approved regional air quality management plan, adopted in April 2017 by the BAAQMD. This plan provides an integrated, multi-pollutant strategy to improve air quality, protect public health, and protect the climate, with new emphases since the last adopted plan was in effect (2010) on regional strategies. The plan is designed to provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases (GHG) in a single, integrated plan. The CAP relies on population and employment forecasts from the Association of Bay Area Governments (ABAG) to inform its management strategies. The CAP includes Transportation Control Measures (TCM) that reflect new regional investment, policies, and public input, particularly the Metropolitans Transportation Commission's (MTC) regional transportation plan, *Transportation 2035: Change in Motion*. For its primary means of addressing climate change, the CAP envisions a "post-carbon economy" to achieve ambitious greenhouse gas reduction targets for the years 2030 and 2050.

Air Emissions Thresholds

Although BAAQMD adopted thresholds of significance in 2010 (updated from the 1999 thresholds) to assist in the review of projects under CEQA, the thresholds were invalidated by a legal challenge, primarily on the grounds that thresholds for exposure to existing sources of toxic air contaminants was inconsistent with the intent of CEQA to evaluate the effects of project on the environment, and not the effects of existing environmental conditions on a project. In settling the case finally in December 2015, the California state Supreme Court concurred that CEQA does not generally require lead agencies to

Table 2 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: pulmonary function decrements and localized lung edema in humans and animals, risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) Aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO_2)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide (SO_2)	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[a]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.[a]

Source: U.S. EPA 2017.

[a] *More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in the following documents: Office of Environmental Health Hazard Assessment, Particulate Matter Health Effects and Standard Recommendations, www.oehha.ca.gov/air/toxic_contaminants/PM10notice.html#may, May 9, 2002; and EPA, Air Quality Criteria for Particulate Matter, October 2004.*

analyze the impact of existing environmental conditions on a project's future users or residents. However, the Court also found that CEQA requires analysis of the potential impacts of exposure to environmental hazards when the project would exacerbate existing hazards. The Court also took note of some special CEQA requirements that mandate analysis of environmental conditions such as the risks of noise, hazardous wastes or wildland fire hazards could impact future residents or users of a project, when human health

and safety are concerned (pursuant to Section 21083(b)(3) of the CEQA statutes). The Supreme Court also recognized that certain infill and workforce housing projects specified in the CEQA statutes require analysis of environmental conditions, where risks of airborne toxic contaminants, severe noise or safety hazards of being near airports may be significant. In spite of these exceptions, though, the Court held that in principle, project analysis should focus on project-generated impacts.

In May 2017, BAAQMD published revised CEQA Guidelines and thresholds to address the issues of the legal challenge of the 2010 CEQA Guidelines. However, while the BAAQMD currently views its 2017 Guidelines as useful to inform environmental review of development projects, it states that the thresholds are for information purposes only, to assist local agencies. More specifically, they characterize their recommendations in the 2017 Guidelines as only advisory and for use by local governments at their own discretion. BAAQMD therefore recommends that lead agencies identify appropriate air quality and GHG thresholds of significance based on substantial evidence in the record, and states that lead agencies may rely on the 2017 BAAQMD's CEQA Guidelines for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, and has instructed that lead agencies may rely on the BAAQMD's 2017 thresholds of significance to make determinations regarding the significance of an individual project's air quality impacts.

This Initial Study, and the County of Alameda Planning Department as the lead agency, utilizes the BAAQMD's significance thresholds for project operations from the May 2017 CEQA Guidelines to determine air quality impacts of the project. Alameda County considers the 2017 CEQA Guidelines as providing substantial evidence in the record for its assessment of project impacts. These thresholds provide more stringent air quality thresholds than the 1999 BAAQMD thresholds, and thus, a more conservative analysis. Therefore, these thresholds are considered reasonable and appropriate for use in this Initial Study.

In addition, a significant air quality impact would occur if the Project would not incorporate control measures recommended by the BAAQMD to reduce emissions during construction. According to Appendix G of the State CEQA Guidelines, a Project would have a significant impact on local or regional air quality if it would:

- Checklist Item 1: Conflict with or obstruct implementation of the applicable air quality plan;
- Checklist Item 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Checklist Item 3: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Checklist Item 4: Expose sensitive receptors to substantial pollutant concentrations; or
- Checklist Item 5: Create objectionable odors affecting a substantial number of people.

Table 3 presents the BAAQMD's May 2017 significance thresholds for construction-related and operational-related criteria air pollutants and precursor emissions. These represent the levels at which a Project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. For the purposes of this analysis, the Project would result in a significant impact if operational emissions would exceed any of the thresholds shown in **Table 3**.

Table 3 BAAQMD Significance Thresholds

Pollutant/ Precursor	Construction Emissions Average Daily Emissions (pounds per day)	Operational Emissions Average Daily Emissions (pounds per day)
ROG	54	54
NO_X	54	54
PM_{10}	82 (exhaust only)	82
$PM_{2.5}$	54 (exhaust only)	54

Source: Table 2-1, BAAQMD 2017.

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less.

Temporary Construction Emissions

Development of the Project would result in temporary construction emissions and long-term operational emissions. Construction activities such as the operation of construction vehicles and equipment over unpaved areas, grading, trenching, and disturbance of stockpiled soils have the potential to generate fugitive dust (PM_{10}) through the exposure of soil to wind erosion and dust entrainment. In addition, exhaust emissions associated with heavy construction equipment would potentially degrade regional air quality.

Long-Term Operational Emissions

Long-term emissions associated with operational impacts would include emissions from vehicle trips, natural gas consumption, landscape maintenance equipment, and consumer products and architectural coating associated with onsite development. Emissions could exceed BAAQMD significance thresholds and could expose nearby sensitive receptors to pollution.

Impacts

3a. Air Quality Management Plan Consistency

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population growth. A Project would be inconsistent with the 2017 CAP if it would result in either population or employment growth that exceeds growth estimates included in the CAP. Growth that exceeds the growth estimates included in the CAP may result in emissions not accounted for in the air quality plan emissions budget.

The Project would involve the construction of 20 new dwelling units, which generate an estimated 53 net new residents, based on the rate of 2.96 persons per household in unincorporated Alameda County in 2016 (California Department of Finance 2016). As discussed in Section 13, *Population and Housing*, the estimated increase in population as a result of the Project would constitute only 1.7 percent of the projected growth of 3,100 residents by 2025, or approximately 0.09 percent of total projected residential population for that year. Therefore, the Project would not result in population growth that would exceed growth forecasts that underlie the air quality management policies in the 2017 CAP. No impact related to conflict or obstruction of the applicable air quality management plan would occur.

NO: NO IMPACT

3b-c. Air Quality Standards, Sensitive Receptors

Construction activities would generate temporary criteria pollutant emissions primarily due to the operation of construction equipment and construction-related truck trips. Emissions associated with the Project were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.1 (see Appendix A for modeling results). Based on the applicant's proposed construction schedule, construction activities were modeled to occur over a period of approximately 11 months from September 2017 through August 2018. Estimated emissions associated with the demolition of the two existing residential units are included in the demolition phase of the Project. This analysis uses default CalEEMod assumptions for the length of individual phases of Project construction. Additional truck trips associated with exporting approximately 1,770 cubic yards of contaminated soil and importing an estimated 2,510 cubic yards of clean soil during the remediation process, and 685 cubic yards of import during the grading process were also included in the analysis. The Project would be required to comply with applicable state and local regulations, including BAAQMD Regulation 8, Rule 3, which limits ROGs in architectural coating, and BAAQMD required mitigation for construction, which includes watering of exposed areas two times per day to limit the dispersion of particulate matter.

Long-term emissions associated with Project operation would include emissions from vehicle trips (mobile sources), natural gas use (energy sources), and landscape maintenance equipment, consumer products and architectural coating associated with onsite development (area sources). Estimated operational emissions were calculated for the proposed Project using CalEEMod. Complete results from CalEEMod and all assumptions are included in Appendix A.

Construction Emissions

Table 4 summarizes the Project's construction emissions. As shown, the Project's estimated construction emissions would not exceed – and are well below – the BAAQMD thresholds of 54 pounds per day of ROG, NO_X, and $PM_{2.5}$, or 82 pounds per day of PM_{10}. The highest daily emission of NO_X would occur during grading activities.

Table 4 Maximum Daily Construction Emissions (pounds/day)

Pollutant	Maximum Daily Emissions	BAAQMD Significance Threshold	Significant Impact?
ROG	5	54	No
NO_x	49	54	No
PM_{10} (exhaust only)	3	82	No
$PM_{2.5}$ (exhaust only)	3	54	No

Values have been rounded. *See Appendix A for CalEEMod worksheets*.

Regardless of whether a Project's construction air quality impacts are above or below significance thresholds, the BAAQMD requires all projects to implement basic construction mitigation measures, even if the project's emissions fall below BAAQMD daily thresholds. Required mitigation measures include:

- Watering exposed surfaces (two times per day);
- Covering haul trucks that transport loose materials;
- Removing visible mud or dirt tracked onto adjacent public roads;
- Limiting vehicle speeds on unpaved roads;
- Completing paved areas as soon as possible;
- Minimizing vehicle idling times;

- Proper maintenance of equipment; and
- Posting signage about the procedure for dust complaints (BAAQMD 2012).

The Project would be required to comply with these measures through standard permitting requirements, and would not result in construction emissions exceeding BAAQMD maximum daily thresholds. Therefore, impacts from construction emissions would be less than significant.

Operational Emissions

Table 5 summarizes the Project's operational emissions. As shown in the table, emissions from the operation of the Project would not exceed BAAQMD thresholds for any criteria pollutant. Note that this analysis reflects the gross new emissions that would result from the proposed new land uses, and does not subtract emissions associated with the existing land uses to estimate net new emissions. Consequently, the impact of the proposed Project's operational emissions on regional air quality represents a conservative estimate.

Table 5 Operational Emissions (pounds/day)

Pollutant	Maximum Daily Emissions	BAAQMD Significance Threshold	Significant Impact?
ROG	1	54	No
NO_x	5	54	No
PM_{10}	1	82	No
$PM_{2.5}$	<1	54	No

Values have been rounded. See Appendix A for CalEEMod worksheets.

As criteria pollutant emissions during construction and operation would fall below BAAQMD significance thresholds, the Project would not have individually or cumulatively significant impacts to air quality.

NO: LESS THAN SIGNIFICANT IMPACT

3d. Sensitive Receptors

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups. Sensitive land uses include health care facilities, retirement homes, school and playground facilities, and residential areas (CalEPA 2005). The sensitive receptors nearest to the Project include single-family and multi-family residential units immediately adjacent to the north, east, and south edges of the Project site.

As discussed above, construction and operation of the Project would not result in emissions that would exceed BAAQMD regional thresholds for any pollutant. Furthermore, construction impacts would be short-term and temporary in nature, and subject to best management practices as identified above. The Project is not located adjacent to tall buildings or other structures that would prohibit or restrict air movement, and given that the Project would be a residential townhome development, operational activities would not include long-term on-site sources of emissions that would significantly increase exposure to substantial concentrations of air pollutants in the Project site vicinity. Therefore, the Project

would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

3e. Odors

Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. The Project would involve the demolition of existing residences and the development of 20 new residential townhome residences. Residential uses do not typically generate objectionable operational odors. Therefore, the Project would not result in odors that would affect a substantial number of people (SCAQMD 1993). Construction activities would potentially result in objectionable odors, particularly from operating diesel machinery, which produces oil and fuel smells. However, odors would be limited to the time that construction equipment is operating and would be temporary. In addition, engine idling time for heavy-duty diesel vehicles is restricted to five minutes by the California Air Resource Board (ARB 2008). Finally, the Project would be subject to BAAQMD Regulation 7, which limits the emission of odorous substances. As a result, odor impacts would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

4. BIOLOGICAL RESOURCES Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		x		
b) Have a substantial adverse effect on any riparian, aquatic or wetland habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?				x
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				x
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				x
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				x
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				x
g) Result in conversion of oak woodlands that will have a significant effect on the environment?				x

Setting

The 1.13-acre Project site includes two parcels. One parcel is a paved or compacted gravel vacant lot with sparse weedy regrowth. The other is developed with a duplex and one single-family, detached residence. The developed parcel has minimal remnant landscaping, with the majority of the yard paved for parking. Three remaining non-native trees on the developed parcel would be removed. There are thirteen trees on adjacent parcels to the north and south, some of which overhang the property line. All of the trees on-site and on the adjacent properties provide potential nesting habitat for birds.

Located in an urbanized area of Castro Valley, the site is bordered by other single- and multi-family residential buildings to the north, south, and east, and commercial uses on the west and slightly further to the north. A 21-unit three-story apartment building bordering Rutledge Road is adjacent to the property on the northwest, and there is an eight-unit, two-level multi-family residential use bordering the property on the southeast side. An equipment storage yard lies behind or west of this property. Across Rutledge Road to the northwest, and extending both east and west along Castro Valley Boulevard are commercial uses with sit-down and drive-through fast food restaurants. The land uses around the site have varying degrees of suburban residential and commercial landscaping. A concrete channelized portion of Chabot Creek is an estimated 220 feet southwest of the southwest corner of the Project site.

Site Assessment and Results

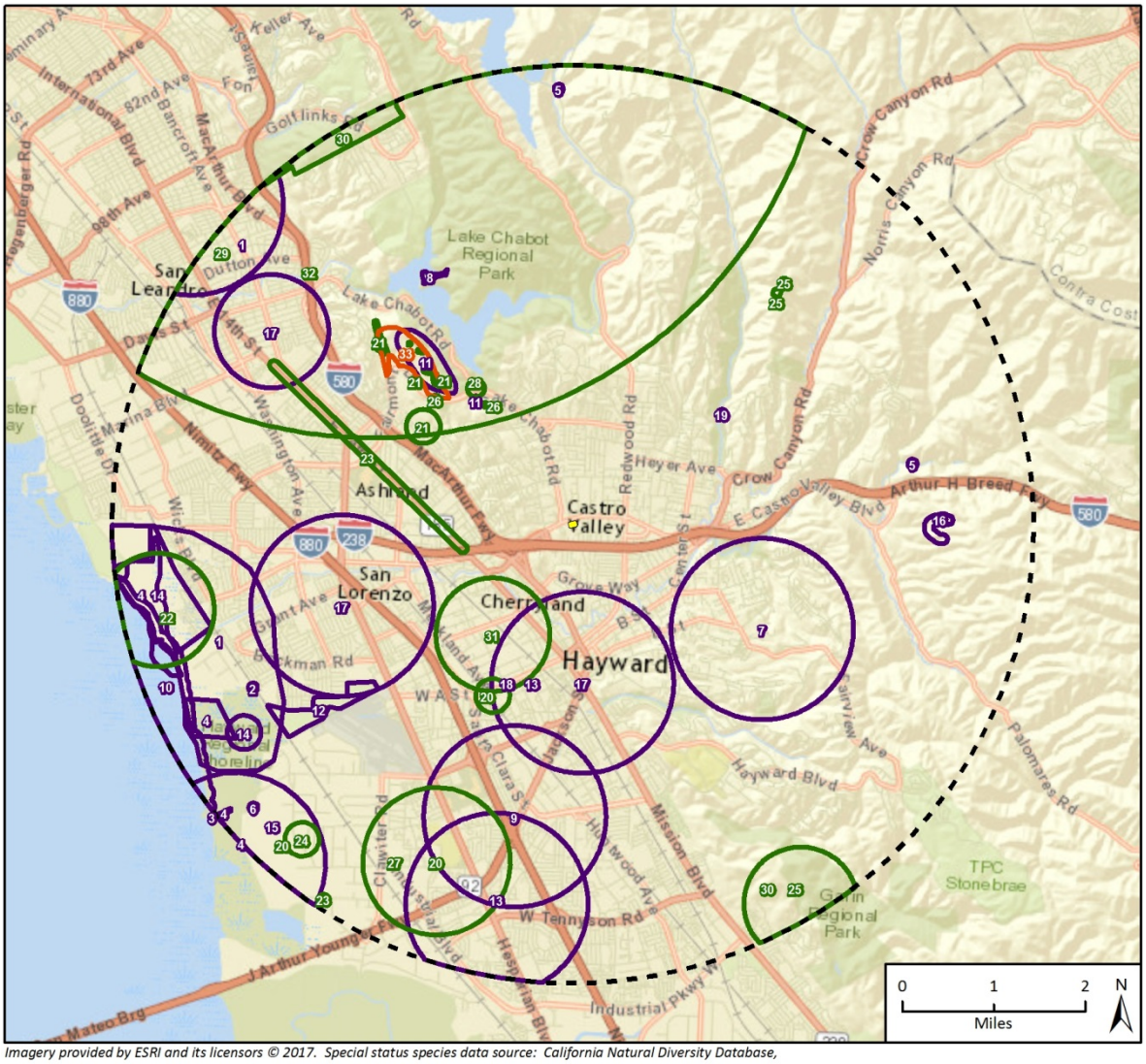
On March 7, 2017, Rincon biologist Eric Schaad conducted a reconnaissance-level field survey of the Project site to document site conditions, assess the presence and composition of on-site habitat, and evaluate the potential for sensitive biological resources to occur on the Project site. The vacant lot on the southern parcel is heavily disturbed, with cracked old asphalt and ruderal regrowth. The northern parcel includes another vacant lot in similar condition, and two dwellings with a paved yard and sparse landscaping. There are three trees on the northern parcel, including a deodar cedar (*Cedrus deodara*) located in the paved front yard; a juniper (*Juniperus* sp.) and a deciduous tree, which was bare at the time of the survey, and therefore could not be identified, are also located behind the dwellings. Thirteen ornamental trees exist along the Project perimeter on adjacent properties; these trees are primarily American sweetgum (*Liquidambar styraciflua*). No special status plant or wildlife species were observed during the survey. The following migratory birds were observed on or near the site: yellow-rumped warbler (*Setophaga coronata*), house finch (*Haemorhous mexicanus*), and California towhee (*Melozone crissalis*).

Literature Review

Rincon biologists reviewed agency databases and relevant literature for baseline information on sensitive biological resources occurring or potentially occurring at the Project site and in the immediate surrounding area. Aerial photographs, topographic maps, soil survey maps, national wetlands inventory and national hydrography dataset were also reviewed for this analysis.

Rincon biologists conducted a review of the California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 2017) for recorded occurrences of special status plant and wildlife taxa in the region prior to conducting a reconnaissance-level field survey. **Figure 17** depicts these occurrences of special status species within a five-mile radius of the Project site. The CNDDB is based on reported occurrences of special status taxa and does not constitute a comprehensive inventory of biological resources for any given area. Other database search results included the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2017) and U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) (USFWS 2017a). Rincon biologists also supplemented these data with experience and knowledge of the region. Rincon compiled these sources into a list of regionally occurring special status plants and animals, and evaluated each species for potential to occur based on habitat conditions and proximity to known occurrences. Rincon also reviewed the National Wetlands Inventory (USFWS 2017b) and the National Hydrography Datasets (USGS 2017) for potential aquatic resources. Neither the National Wetlands Inventory nor the National Hydrography Dataset depicts any waters or wetlands on the site, and this was corroborated by the site visit.

Figure 17 Occurrences of Special Status Species



Imagery provided by ESRI and its licensors © 2017. Special status species data source: California Natural Diversity Database, February, 2017. Additional suppressed records reported by the CNDDB known to occur or potentially occur within this search radius include: Alameda whipsnake, American peregrine falcon. For more information please contact the Department of Fish and Game.

Project Location
5 Mile Buffer

CNDDB

Animals
Plants
Natural Communities

1 - Alameda song sparrow
2 - burrowing owl
3 - California black rail
4 - California clapper rail
5 - California red-legged frog
6 - Cooper's hawk
7 - Crotch bumble bee
8 - great blue heron
9 - hoary bat
10 - longfin smelt
11 - Lum's micro-blind harvestman
12 - monarch - California overwintering population
13 - pallid bat
14 - salt-marsh harvest mouse
15 - salt-marsh wandering shrew
16 - San Francisco dusky-footed woodrat
17 - western bumble bee
18 - western mastiff bat
19 - yellow warbler
20 - alkali milk-vetch
21 - big-scale balsamroot
22 - California seablite
23 - Congdon's tarplant
24 - Contra Costa goldfields
25 - Diablo helianthella
26 - fragrant fritillary
27 - hairless popcornflower
28 - Jepson's coyote-thistle
29 - Loma Prieta hoita
30 - most beautiful jewelflower
31 - Santa Cruz tarplant
32 - woodland woollythreads
33 - Valley Needlegrass Grassland

FigX CNDDB

Impacts

The impact analysis presented in this section is based on a review of pertinent information of the biological resources in the vicinity of the Project and data collected during a reconnaissance site visit. This analysis considers proposed full build-out of the existing developed lots, as described in the Project Description.

Impact - 4a. Special Status Species

Special Status Plants

A review of the CNDDB for known special status species occurrences within a five-mile search area identified a total of 14 special status plant species (CDFW 2017). During reconnaissance surveys, no special status plant species or potentially suitable habitat for special status plant species were encountered. The Project site is an existing developed area that has been disturbed in its entirety; therefore, no suitable habitat for special status plant species remains and special status plants are not anticipated to occur.

Special Status Wildlife and Nesting Birds

Alameda County is home to several species protected by federal and state agencies; however, wildlife habitat on the Project site is limited or non-existent in its current condition. A review of the CNDDB for known special status wildlife species occurrences within a five-mile search area identified 19 special status animals in the vicinity of the Project. Focused surveys for wildlife species were not conducted. No special status wildlife species were observed during the reconnaissance survey. Based on the developed character of the Project site, with the exception of nesting birds, special status wildlife species are not expected on the site. Commercial land uses, pavements and suburban landscaping lies between the site and Chabot Creek, which itself has extremely low habitat value as a concrete channel. No designated critical habitat is present on the Project site (USFWS 2017a).

The Project site contains some suitable nesting habitat for a variety of birds that are protected under the California Fish and Game Code (CFGC) and the Migratory Bird Treaty Act (MBTA). Future development of the site would have limited impact to suitable habitat for bird nesting by removing three trees, and through general construction activity that has the potential to directly and indirectly impact nesting birds in adjacent trees. Direct impacts to nesting birds could include the destruction of active bird nests. Indirect impacts include the abandonment of active nests by adult birds that are disturbed by nearby construction activity and associated noise. In order to avoid potential adverse impacts to nesting birds, implementation of Mitigation Measure BIO-1 would be required.

Mitigation Measures

The following mitigation measures would be required to avoid or reduce the Project's potentially significant impacts to nesting birds and special status wildlife.

BIO-1 **Nesting Bird Surveys and Avoidance.** Initial site disturbance activities, including vegetation removal and structure demolition, shall be prohibited during the general avian nesting season (February 1 – August 30), if feasible. If nesting season avoidance is not feasible, the applicant shall retain a qualified biologist to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the Project site. The extent of the survey buffer area surrounding the site shall be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and CFGC, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation clearance and structure demolition. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a

minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed within the buffer areas until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No ground disturbing activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring between August 30 and February 1.

Implementation of mitigation measure BIO-1 would ensure protection of nesting birds that may be present on the site during construction activities. These measures would reduce impacts to special status species to a less than significant level.

NO: LESS THAN SIGNIFICANT WITH MITIGATION

Impact - 4b. Riparian Habitat and Sensitive Natural Communities

Riparian habitat and sensitive natural communities are absent from the Project site and immediate surroundings. No impact to these resources would occur. Chabot Creek is approximately 220 feet south west of the site; this reach of the creek is an engineered concrete channel with minimal vegetation, and not likely to support sensitive species.

NO: NO IMPACT

Impact - 4c. Wetlands and Waters

The site and immediate surroundings do not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) or any Waters of the State that would fall under the jurisdiction of the CDFW or the Regional Water Quality Control Board. Chabot Creek is far enough away that it would not be affected by the project. Therefore, no impact to these resource types would occur.

NO: NO IMPACT

Impact - 4d. Wildlife Corridors

The Project site is largely paved and contains only sparse ruderal vegetation, therefore the property lacks habitat that would provide critical habitat elements necessary to function as a wildlife corridor. The site is bounded on all sides by existing residential or commercial development. The site is not part of, adjacent to, or directly within any known or documented wildlife access or historical migratory route. Because the site is already developed as residential area, the Project would not significantly alter the existing conditions of the site and as such would not modify any wildlife corridors that may be present in the marginal habitat along Chabot Creek to the southwest of the Project site.

NO: NO IMPACT

Impact - 4e. Local Ordinances

The Alameda County Tree Ordinance (no. 0-2004-23) and Chapter 12.11 (Regulation of Trees in County Right-of-Way) of the Alameda County Code of Ordinances finds that the preservation of trees within the County right-of-way enhances the natural scenic beauty, sustains the long term potential increase in property values, protects the surrounding area from soil erosion, moderates the effects of extreme weather conditions and temperatures, improves air quality including increasing the oxygen output of the area, which is needed to combat air pollution, creates the identity and quality of the County's businesses and residences, and improves the attractiveness of the County to visitors. Under the Tree Ordinance and Chapter 12.11 of the County Code, any tree removed from the County right-of-way must be authorized by a permit issued by the Director of the Alameda County Public Works Agency (or his or her designee) and typically removals are mitigated through efforts to replace an existing tree or trees with one or more trees

of a type consistent with the character of the neighborhood, as outlined in the permit. Similarly, trimming of any trees along the right-of-way that involves removal of branches more than an inch in diameter requires a permit. Permits can be obtained for trimming and removal associated with approved development projects, provided any requirements for replacement planting, encroachment permits, etc. as specified in the ordinance are met.

Three trees would be removed for this project; however, none of them are within the public right-of-way. The 13 non-native ornamental trees directly adjacent to the property would not be removed and are not expected be trimmed or affected by the project. Some of these trees may have canopy and root crown extending into the site.

NO: NO IMPACT

Impact - 4f. Conflict with a Conservation Plan

The Project site is not within the boundaries of an approved habitat conservation plan, natural community conservation plan or their approved local, regional, or state habitat conservation plan. Thus, future build-out of the Project site would not conflict with any habitat conservation plans, natural community conservation plans or other approved local, regional, or state habitat conservation plans.

NO: NO IMPACT

5. CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			×	
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			×	

Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills.

Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (California Environmental Protection Agency [CalEPA] 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (IPCC 2007).

California's major initiative for reducing GHG emissions is outlined in Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020, and requires the California Air Resources Board (ARB) to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions. AB 32 codified a short-term statewide GHG reduction goal to set the State on a trajectory to attain the long-term statewide goal of 80% below 1990 levels by 2050. On September 8, 2016, California codified a mid-term statewide goal of 40% below 1990 levels by 2030 under Senate Bill (SB) 32. A Scoping Plan was adopted by the ARB in 2008, and updated in May 2014; another update is underway to address the 2030 objectives.

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.

In 2007 Alameda County signed the Cool Counties Climate Stabilization Declaration (R-2007-336), which committed the County to work towards achieving an 80% reduction in GHG emissions by 2050. In, 2014, Alameda County adopted its Community Climate Action Plan (CCAP). The CCAP includes results of the County's GHG emissions inventory and provides GHG reduction strategies for six climate action areas (transportation, land use, building energy, water use, waste, and green infrastructure) to meet GHG reduction targets consistent with AB 32. According to the CCAP, the unincorporated areas of Alameda emitted 930,039 metric tons of carbon dioxide equivalent emissions (MT CO_2e) per year in 2005. Thus, to meet AB 32 target reductions, the County would need to reduce annual emissions to 15% below 2005 levels by 2020, or to 790,533 MT CO_2e. It is projected that the strategies set forth in the CCAP would slightly exceed this target and achieve a 15.6% reduction relative to 2005 emissions, or 785,070 MT CO_2e (Alameda County 2014).

Determining Significance

The Association of Environmental Planners (AEP) Climate Change Committee white paper identified seven thresholds for operational emissions. The following four methods described are the most widely used evaluation criteria, the first three of which are also recommended by the 2017 BAAQMD CEQA Guidelines.

(1) Consistency with a qualified GHG reduction strategy or plan. For a project located within a jurisdiction that has adopted a qualified GHG reduction plan (as defined by CEQA Guidelines Section 15183.5), GHG emissions would be less than significant if the project is anticipated by the plan and fully consistent with the plan (and thus can "tier" from such a plan). However, projects with a horizon year (i.e., buildout) beyond 2020 should not tier from a plan that is qualified through 2020.

(2) Efficiency thresholds. Land use sector efficiency thresholds are currently based on AB 32 targets and should not be used for projects with a horizon year beyond 2020. However, projects with a horizon year beyond 2020 should take into account the type and amount of land use projects and their expected emissions out to the year 2030. Efficiency metrics should be adjusted for 2030 and include applicable land uses.

(3) Bright line thresholds. There are two types of bright line thresholds:

   a. Standalone thresholds: Emissions exceeding standalone thresholds would be considered significant.

   b. Screening thresholds: Emissions exceeding screening thresholds would require evaluation using a second tier threshold, such as an efficiency threshold or other threshold concept to determine whether project emissions would be considered significant.

(4) Percent below "Business as Usual" (BAU). GHG emissions would be less than significant if the project reduces BAU emissions by the same amount as the statewide 2020 reductions. However, this method is no longer recommended following the Newhall Ranch ruling, which determined that the evaluation of a project's impacts must demonstrate substantial localized evidence consistent with AB 32, beyond a BAU competitive analysis.

Significance Thresholds

The adopted CEQA Guidelines provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). GHG emissions in Alameda County can be evaluated using both options, as the BAAQMD has adopted quantitative significance thresholds and the County has adopted a Community Climate Action Plan as indicated by *Determining Significance* option (1). Both options were designed to achieve consistency with the statewide AB 32 reduction target, but have not been updated to achieve consistency with the recently codified SB 32 statewide reduction target, which is why the option (1) approach was not utilized to evaluate this project. At this time the Updated Scoping Plan is still in draft form and the State reduction measures and methodologies needed to meet the SB 32 goal for 2030 have not been finalized. Furthermore, due to the findings of the Newhall Ranch ruling, a business as usual option (4) approach is not recommended.

In order to evaluate the Project's consistency with the 2030 State emissions goal, an applicable bright line threshold, option (3), was developed based on the BAAQMD's bright-line significance threshold for 2020 and the estimated necessary trajectory to achieve the Statewide 2030 goal. In accordance with this approach, the previously established threshold of 1,100 MT CO_2e was reduced by 40% to establish a threshold for this Project, consistent with the 40% reduction required under SB 32, as indicated by option (3) evaluation criteria. Therefore, the threshold for this Project is 660 MT of CO_2e per year. This means that if the Project's GHG emissions would not exceed 660 MT CO_2e per year, then the Project would be consistent with the SB 32 GHG reduction goals and the trajectory to reduce GHG emissions to levels that are 40% below 1990 levels by 2030. **Table 6** summarizes the BAAQMD bright line threshold and the SB 32 compliant Project specific significance threshold for GHG emissions.

Table 6 GHG Significance Thresholds

GHG Emission Source Category	Operational Emissions
AB 32 (BAAQMD Bright Line Thresholds)	
Non-stationary Sources	1,100 MT CO_2e/year OR 4.6 MT CO_2e/SP/year (residents + employees)
Stationary Sources	10,000 MT/year
Project-Specific Emissions Target (40% below bright line: 1,100 MT CO_2e threshold consistent with SB 32)	660 MT CO_2e/ year

Emissions Modeling

Project construction and operation emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.1, as described in Section 3, *Air Quality*.

Temporary Construction Emissions

Construction of the Project would generate GHG emissions primarily due to the operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the Project site and heavy trucks to export earth materials off-site. CalEEMod provides an estimate of emissions

associated with the construction period based on parameters such as the duration of construction activity, area of disturbance, and anticipated use of equipment during construction.

The BAAQMD has not established a threshold of significance specifically for construction-related GHG emissions and California Air Pollution Control Officers Association (CAPCOA) does not address whether any of the suggested threshold approaches adequately address impacts from temporary construction activity, and urge that "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA 2008). However, multiple air districts have recommended adding amortized construction emissions to annual operational emissions to determine total annual emissions and comparing the combined total to significance thresholds for annual operational emissions. The BAAQMD recommends amortizing construction emissions over a 30 year period. The amortized construction emissions are combined with annual operational emissions to estimate the Project's total annual GHG emissions estimate.

Long-Term Operational Emissions

CalEEMod estimates operational emissions of the following GHGs: CO_2, N_2O, and CH_4. Operational GHG emissions would be generated by direct energy consumption, water and wastewater use, waste generation, and transportation. Emissions from direct energy consumption include electricity and natural gas use for heating and stoves. The emissions factors for natural gas combustion are based on EPA's AP-42, (Compilation of Air Pollutant Emissions Factors) and the California Climate Action Registry's (CCAR) General Reporting Protocol. Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2016). The default electricity consumption estimates are based on the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies.

Emissions from water and wastewater are estimated based on the default electricity intensity from the CEC's "2006 Refining Estimates of Water-Related Energy Use in California" using the average values for Northern and Southern California. Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and utilize standard emission rates provided by ARB and the U.S. EPA, as well as emission factor values provided by the local air district (CAPCOA 2016).

Emissions from waste generation are estimated based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2016). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

For mobile sources, CO_2 and CH_4 emissions were quantified in CalEEMod. However, CalEEMod does not estimate N_2O emissions from mobile sources. N_2O emissions were quantified using CCAR direct emissions factors for mobile combustion (CCAR 2009) (see Appendix A for N_2O calculations). The number of total daily weekday trips associated with the Project was taken from the Project's Transportation Impact Study (TIS) conducted by Wood Rodgers (see Appendix H). As the Project does not propose any mixed-use or commercial land uses, the Traffic Impact Study conservatively assumed no reductions to the trips generated by ITE rates. Additionally, since there are currently only three residential units on the site, it was conservatively assumed that no trip reductions would be applied to the new development to account for the displaced trips. The results of the TIS were used to derive total annual mileage in CalEEMod. Emission rates for N_2O emissions were based on the vehicle mix output generated by CalEEMod and the emission factors found in the CCAR General Reporting Protocol (2009).

As discussed in Section 3, *Air Quality*, operational emissions were modeled without subtracting emissions from existing residences on-site, which provides a conservative estimate of the Project's net impact on air quality and climate change.

Impacts

6a-b. GHG Emissions, Consistency with GHG Reduction Plans and Policies

Construction Emissions

Table 7 shows the GHG emissions associated with Project construction. As shown, the Project would generate about 286 MT CO_2e over the construction period. Amortized over a 30-year period (the assumed lifetime of the Project), construction emissions would contribute approximately 10 MT CO_2e per year.

Table 7 Estimated Construction GHG Emissions

Year	Project Emissions (MT CO_2e)
Total	286
Total Amortized over 30 Years	10

Values have been rounded. See Appendix A for CalEEMod worksheets.

Operational Emissions

Table 8 shows the annual operational GHG emissions associated with operation of the Project. As shown, the Project would emit approximately MT CO_2e per year during operation (**Table 8**). As this estimate does not subtract out emissions associated with the two existing residences currently on the Project site,

Table 8 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (MT CO_2e)
Construction	10
Operational	
Area	<1
Energy	37
Solid Waste	2
Water	5
Mobile	
CO_2 and CH_4	430
N_2O	6
Project Total Emissions	**490**
Thresholds	**Threshold Exceeded?**
BAAQMD Project threshold: 1,100 MT CO_2e/year	No
Project specific significance threshold: 660 MT CO_2e/year	No

All values have been rounded.See Appendix A for CalEEMod worksheets.

the net increase in operational emissions due to the proposed Project would be lower, and the results below offer a more conservative estimate of operational GHG emissions. GHG emissions associated with the Project would not exceed the 1,100 MT CO_2e per year significance threshold for GHG emissions established by the BAAQMD, and would not exceed the annual Project-specific emission target of 660 MT CO_2eProject.

Senate Bill 375 requires the inclusion of a Sustainable Communities Strategy (SCS) in each regional transportation plan (RTP) for the purpose of reducing GHG emissions. In July 2017, the Metropolitan Transportation Commission (MTC) and the ABAG adopted the Plan Bay Area 2017, which is a state-mandated, long-range, integrated transportation, land-use, and housing plan that would support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution in the nine-county San Francisco Bay Area (MTC 2013). The Plan describes where and how the region can accommodate the projected 820,000 new households and 1.3 million new jobs between 2017 and 2040 and details the regional transportation investment strategy over the next 24 years. In addition, Alameda County has an adopted CCAP that includes measures and implementation actions to achieve GHG emission reduction goals. **Table 9** discusses the Project's consistency with the Plan Bay Area 2017 and the Alameda County CCAP. As shown, the Project would be consistent with the goals, targets, and policies of the Plan Bay Area 2017 and the Alameda County CCAP.

Table 9 Project Consistency with Plan Bay Area 2017 and Alameda County CCAP

Goals, Targets, and Policies	Consistency
Plan Bay Area	
Reduce per-capita CO_2 emissions from cars and light-duty trucks by 15%	**Consistent** The Project's GHG impacts were estimated and compared to the BAAQMD threshold of 1,100 MT of CO_2e per year and a project-specific threshold of 660 MT of CO_2e per year. The Project's construction and operational emissions would be below both significance thresholds and would therefore be consistent with the Plan Bay Area CO_2 emission reduction targets.
House 100% of the Region's projected growth by income level without displacing current low-income residents and with no increase in in-commuters over the Plan baseline year.	**Consistent** The Project would involve the demolition of one duplex and one single family home. Thus, the Project would remove three housing units that could provide housing for lower-income tenants from the housing supply in Alameda County, and the larger Bay Area, and displace current residents. However, the Project would also involve the redevelopment of the site with a higher density housing design that includes 20 total units. Thus, while the project would not specifically include below market-rate housing options nor directly address the local need for affordable housing, it would increase the total housing supply on the site and in the Bay Area by 17 units. This would be consistent with the goals of Plan Bay Area to sufficiently house 100 percent of the Bay Area's future workforce and residents, as it would increase the total supply of housing in the area. Separate from the project, the Housing Authority of the County of Alameda would continue to operate affordable housing

Goals, Targets, and Policies	Consistency
	and rental assistance programs, and provides resources to the community seeking below market-rate housing such as accessory dwelling units. Some of the programs are administered by the U.S. Department of Housing and Urban Development and are intended to assist low-income families find affordable housing. Although the project would not directly address the local need for affordable housing, the project would address the need for additional housing units in the Bay Area by providing a net increase in available housing for Bay Area workers and residents. Further, as noted in 13b,c. *Displaced Housing and People*, impacts associated with the displacement of existing residents would be less than significant.
Reduce adverse health impacts associated with air quality, road safety and physical inactivity by 10%	**Consistent** The proposed townhomes would promote walkability and access to public transportation by providing a net increase of 17 units within walking distance to public transit, such as bus and rail service, which could reduce VMT more than the same number of units located on the periphery of Castro Valley. The Bay Area Rapid Transit (BART) Castro Valley Station is located approximately 0.6 mile southeast of the Project site on Northbridge Drive. BART provides regional rail service, including to San Francisco, Oakland and Berkeley. Additionally, Castro Valley Boulevard, Lake Chabot Road, and San Miguel Avenue are served by Alameda - Contra Costa (AC) Transit bus lines 32, 48, NXC, and NX4.
Alameda County CCAP	
Energy Action Area	
E-10 Require new construction to use building materials containing recycled content	**Consistent** The Project would be required to comply with this requirement for use of recycled content in building materials
E-12 Require all new multi-unit buildings and major renovations to existing multi-unit buildings to be "submetered" in order to enable each individual unit to monitor energy and water consumption.	**Consistent** The Project would be required to comply with requirements for submetering of individual units to monitor energy and water consumption.
Water Use Action Area	
WT-2 Require new landscape Projects to reduce outdoor potable water use by 40%.	**Consistent** The Project would be required to comply with Alameda County requirement to reduce outdoor potable water use for landscaped areas as applicable.

Goals, Targets, and Policies	Consistency
Waste Action Area	
WS-1 Increase solid waste reduction and diversion to 90% by 2030.	**Consistent** The Project would be required to comply with existing and anticipated Alameda County requirements to minimize solid waste, and comply with State policies including AB 341 and AB 1826, as applicable. The Project would also comply with 2016 CALGreen standards requiring at least 65% construction and demolition waste to be diverted from the landfill. CALGreen standards also require the Project to provide readily accessible areas for recycling of paper, cardboard, glass, plastics, organic waste and metals (CalRecycle 2016).

As discussed above, the Project's GHG emissions would be below all applicable significance thresholds including the BAAQMD GHG significance thresholds, the Project-specific significance thresholds consistent with SB 32, and the Project would also be consistent with local and regional plans to reduce GHG emissions. Therefore, the Project would be consistent with State and local policies to reduce GHG emissions and this impact would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

6. CULTURAL RESOURCES Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?			×	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?		×		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			×	
d) Disturb any human remains, including those interred outside of formal cemeteries?		×		

Cultural Resources

A Cultural Resources Study Technical Report (Rincon Consultants, March 2017a) was prepared for the Project (see Appendix B). The study included an archival and records review of the California Historical Resources Information System (CHRIS), Northwest Information Center (NWIC) (File No. 16-1116 dated January 31, 2017); a Native American Heritage Commission (NAHC) search of the Sacred Lands File (SLF) on February 5, 2017; contact (on February 5, 2017) of the six Native American contacts provided by the NAHC that may have knowledge of cultural resources in or near the project; and an intensive pedestrian survey of the Project site on March 7, 2017.

In addition, due to the age of two homes on the site (both built circa 1925), an independent Historical Resources Evaluation for the project site was prepared by Preservation Architecture in January 2017 (Preservation Architecture 2017). The Historical Resources Evaluation was conducted to support the environmental review and included archival research, an intensive-level field survey and evaluation, and a report summarizing the results. The information provided herein relating to historical resources is derived from that Historical Resources Evaluation, which is included in its entirety in Appendix C.

Paleontological Resources

A Paleontological Resources Assessment (Rincon Consultants, March 2017b) was prepared for the Project that determined that surface sediments on the Project site have low or no potential to contain fossils. The Paleontological Resources Assessment is included as Appendix D. In addition, ENGEO (2017) conducted an independent geotechnical study and determined that within the shallow depths of project construction (6 feet, maximum), the sediment has likely been re-worked for previous agricultural and building purposes. The full Geotechnical Report is provided in Appendix D.

Setting

Cultural

Prehistoric

The Project lies within the San Francisco Bay Area archaeological region (Milliken et al. 2007; Moratto 1984). Of note, over 425 prehistoric shell mounds have been documented along the shores of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties, confirming the richness of this region's cultural resources. The prehistoric cultural chronology for the San

Francisco Bay Area can be generally divided into five periods: the Early Holocene (8,000-3,500 B.C.[1]), Early (3,500-500 B.C.), Lower Middle (500 B.C. to A.D. 430), the Upper Middle (A.D. 430-1050), and the Late Period (A.D. 1050-Contact). The Early Holocene sites are best understood from those within Contra Costa County, though evidence for this Period is limited, obscuring the actual record. Alameda County in fact contains several important archaeological sites, including the well-known Early Period shell mound in Berkeley (CA-ALA-307) and the Lower Middle Period shell mound in Emeryville (CA-ALA-309). By the Late Period, many of the major shell mounds in the region were abandoned, possibly because of climate instability.

Ethnographic

The project site is situated within a region historically occupied by the Costanoan (also known as the Ohlone) (Kroeber 1925). The term Costanoan is a linguistic designation for populations that spoke one of eight Costanoan languages. The Costanoan were organized into numerous tribelets. Each tribelet's territory contained a main village and smaller satellite villages. The villages were typically situated along a river or stream for easy access to water. Castro Valley contains many such streams that are known to have been used by people in the past. Costanoan groups came into contact with European culture at the beginning of Spain's land exploration and settlement of Alta California in A.D. 1769. This date also coincides with the post-European contact periods for California, which is generally divided into the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Castro Valley is named for Don Guillermo Castro, an earlier rancher and soldier in the Mexican army. Castro was the grandson of Joaquin Ysidro de Castro, who traveled from Mexico with the de Anza expedition of 1775. Castro owned Rancho San Lorenzo, which was awarded to him by Governor Juan Alvarado in 1841 for his military service. By the mid-nineteenth century, Castro Valley was well-known for its chicken ranching; however, following World War II, the city rapidly evolved from reliance on agriculture to becoming a chiefly residential community.

Historic

The project site was historically part of a 500 acre property that was purchased in 1869 by James Harvey Strobridge. Strobridge subsequently subdivided the land in 1884 and the project site was included in a 13.2 acre lot that was purchased by S. Hemingway. This parcel was again subdivided in 1925 as part of the Baker Vista Tract by Frank E. and Ada B. Baker. The two parcels that comprise the current project site were individually sold in 1940 in a deed trust with John R. and Clara Rose and eventually transferred to Henry J. Matoza by the mid-1950s.

Contained on a single property within the project site is a pair of historic-era residential buildings, with addresses of 20785-20787 and 20803 Baker Road respectively. Archival research conducted as part of the Historical Resources Evaluation (Appendix C) was unable to confirm the construction date of either residence; however, available data and visual observation indicates that both residences were constructed prior to 1946. Limited information was identified regarding their construction and occupancy history.

Paleontological

The project area includes one mapped geologic unit at the surface; Quaternary alluvial deposits (Qa: late Holocene) (Rincon Consultants, March 2017b). These deposits of gravel, sand, and clay fill valley areas in the region, and incorporate gravel and sand of major stream channels. The project site lies within a broad alluvial valley (Castro Valley) that acts as a sediment catchment basin of streams to the north and east (Rincon Consultants, March 2017b). Late Holocene alluvial deposits are generally considered too young (<5,000 years old) to contain paleontological resources.

1 B.C., as used here, refers to "before the common era".

Impacts

6a. Historical Resources

Significance criteria: The Project would have a significant environmental impact if it were to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the *CEQA Guidelines*, if it is associated with events important to California's history, is associated with the lives of important persons, embodies distinctive construction characteristics, or contributes important prehistoric or historic information.

As described in the setting section above and in greater detail in Appendix C, the project site contains two historic-age residences on a single property, both built circa 1925, neither of which is a distinctive or unique example of their period's architecture. Similar in form and design, each house is a relatively small and basic vernacular cottage constructed of wood frame and horizontal wood siding. Ornamentation is limited to a few sets of wood window shutters; otherwise these vernacular cottages are basic architectural forms without distinctive characteristics. The property is not listed in the National Register of Historic Places, California Register of Historical Resources (CRHR), of the Alameda County Register (ACR). A Historical Resources Evaluation completed by Preservation Architecture in January 2017 (Appendix C) confirmed that the property is not eligible for listing in the CRHR or the ACR; neither it nor the residences it contains are associated with events important to California's history, associated with the lives of important persons, embody distinctive construction characteristics, or contributes important prehistoric or historic information. The property is therefore not considered a historical resource and demolition of the buildings as proposed by the current project would not result in a substantial adverse change in the significance of a historical resource as defined in CEQA 15064.5.

NO: LESS THAN SIGNIFICANT IMPACT

6b, d. Archaeological Resources, Human Remains

Significance criteria: The proposed project would have a significant environmental impact if it were to cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5 of the CEQA Guidelines.

The Cultural Resources Study (Appendix B) did not identify any archaeological resources on the Project site. However, because the Project lies within a broad alluvial plain, fed by multiple creeks with a known history of prehistoric and historic period archaeological discoveries, the Project does have some, albeit a low sensitivity for the unanticipated discovery of buried archaeological resources. The majority of the project site would require shallow excavation (maximum 6 feet). As a result, the possibility exists for archaeological resources to be present on-site and impacts would be potentially significant if encountered during excavation.

Mitigation Measures

The following mitigation measures would reduce impacts to a less than significant level.

CR-1 **Unanticipated Discovery of Cultural Resources.** If unanticipated cultural deposits are encountered during any phase of Project construction or land modification activities, work shall stop within 50 feet of the discovery, the County shall be notified, and a professional archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology shall be retained to assess the nature, extent, and potential significance of the discovery. If the resources are determined to be Native American in origin, the applicant shall consult with the County to begin Native American consultation procedures, as appropriate. If the discovery is determined to be not significant, work will be permitted to continue in the area.

Potentially significant resources may require a Phase II subsurface testing program to determine the resource boundaries within the Project site, assess the integrity of the resource, and evaluate the site's significance through a study of its features and artifacts. If, in consultation with the County, a discovery is determined to be significant, a mitigation plan shall be prepared and implemented in accordance with state guidelines. If impacts to the resource cannot be avoided, a data recovery plan shall be developed to ensure collection of sufficient information to address archaeological and historical research questions, with results presented in a technical report describing field methods, materials collected, and conclusions. Any cultural material collected as part of an assessment or data recovery effort shall be curated at a qualified facility.

CR-2 **Human Remains Recovery Procedures**. If human remains are discovered, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner will notify the NAHC. The NAHC will determine and notify a Native American most likely descendant (MLD). The MLD will complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Incorporation of the mitigation measures listed above would mitigate potential impacts to cultural resources to a less than significant level.

NO: LESS THAN SIGNIFICANT WITH MITIGATION

6c. Paleontological Resources

Significance criteria: A significant impact would occur if the proposed project would directly or indirectly destroy a unique paleontological resource or unique geologic feature.

The Paleontological Resources Assessment (Appendix D) did not identify any paleontological resources within the Project site. Due to the shallow depth of excavation (6 feet, maximum) in sediments with low to no sensitivity for paleontological resources (SVP 2010) that have already been extensively re-worked for previous agricultural and building purposes, the Project is not expected to directly or indirectly destroy a unique paleontological resource or site or unique geological feature. No mitigation measures are recommended for the Project.

NO: LESS THAN SIGNIFICANT IMPACT

7. GEOLOGY AND SOILS Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			×	
ii) Strong seismic ground shaking?			×	
iii) Seismic-related ground failure, including liquefaction?			×	
iv) Landslides?			×	
b) Result in substantial soil erosion or the loss of topsoil?			×	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		×		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		×		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				×

Setting

A site specific Geotechnical Exploration was conducted by Engeo dated March 22, 2017 (see Appendix E). The study addresses both the 20785 and 20957 Baker Road properties.

Impacts

7a-i. Earthquake Fault Rupture

The site is not located in an Alquist-Priolo Earthquake Fault Zone according to the Soils and Seismic Hazards Map in the Castro Valley General Plan (2010). No known active faults are mapped at the Project location and that the potential for ground rupture is low (ENGEO 2017). Impacts regarding exposure of people or structures to the rupture of a known earthquake fault would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

7a-ii. Seismic Ground Shaking

The proposed Project would be located in the San Francisco Bay Region, which experiences numerous small earthquakes each year and has experienced significant earthquakes in the past that have involved strong seismic ground shaking (ENGEO 2017). The Project site is located near five major faults listed in **Table 10**.

Table 10 Summary of Nearby Active Faults

Fault Name	Approximate Distance from Site (miles)	Maximum Moment Magnitude
Hayward	0.7	7.3
Calaveras	7.7	7.0
Mount Diablo Thrust	11.2	6.7
GreenValley	15.1	6.8
Greenville	18.5	7.0
San Andreas	18.9	8.1

Source: ENGEO Geotechnical Exploration 2017 – Using 2008 USGS Quaternary Fault and Fault Database

A strong seismic event along any of these faults could create substantial groundshaking, as is the case throughout the San Francisco Bay Region (California Geological Survey [CGS] and U.S. Geological Survey [USGS] 2008). The 2016 California Building Code (CBC) includes standards to reduce hazards to structures and people resulting from strong seismic activities. As design and construction of the proposed Project would be required to comply with CBC standards, exposures of people or structures to potential substantial adverse effects from strong seismic ground shaking would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

7a-iii. Seismic Ground Failure

ENGEO reviewed the map for Seismic Hazard Zones in the Project area, and found no historical evidence of ground failure, earthquake-induced settlement, or liquefaction at the site or in the general vicinity (ENGEO 2016). The Project site is not mapped in a liquefaction hazard zone by the California Geologic Society and the soils at the Project site are alluvial gravel, sand, and clay deposits. The study also concluded that the Project site has low to negligible risk of other seismic-related ground failure, such as lateral spreading or subsidence. Therefore, the proposed Project would not expose people or structures to potential substantial adverse effects involving seismic-related ground failure.

NO: LESS THAN SIGNIFICANT IMPACT

7a-iv. Landslides

The Project site and surrounding area is flat and fully urbanized. The site is not located in an Earthquake-Induced Landslide Zone as per the Soils and Seismic Hazards Map in the General Plan (2010) and the California Geologic Survey (ENGEO 2017). Therefore, landslide risk would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

7b. Erosion

The Project site and surrounding area is flat and fully urbanized. Therefore, substantial soil erosion or the loss of topsoil would be unlikely to occur. There is potential for soil erosion to occur at the site during site preparation and grading activities associated with the Project. However, the proposed Project would be required to comply with Alameda County Municipal Code (ACMC) regulations to limit erosion during construction (Section 15.36.600, Erosion and sediment control), as well as National Pollution Discharge Elimination System (NPDES) Construction General Permit requirements, which apply to construction sites greater than one acre; these requirements include the preparation and implementation of a storm-

water pollution prevention plan (SWPPP) and incorporation of best management practices (BMP) to prevent sediment and other forms of pollution from entering waterways. In addition, the proposed Project would comply with ACMC Section 16.16.080, Erosion and siltation control, which sets design requirements for new development, such as including debris basins. The flat topography of the site and the proposed Project's compliance with regulatory requirements would result in a less than significant impact to soil erosion and topsoil loss.

NO: LESS THAN SIGNIFICANT IMPACT

7c. Geologic Instability

As stated above, the Project site is located within an area with low to negligible risk of landslides, lateral spreading, subsidence, or liquefaction (ENGEO 2017) and the proposed Project would be required to be constructed in accordance with CBC standards. However, the Preliminary Geotechnical Exploration by ENGEO indicates that there may be undocumented existing fills on the site that could undergo excessive settlement and fail to support the proposed building loads. To reduce the impact of potentially inadequate fill to a less than significant level, the following mitigation measure is required.

Mitigation Measure

The following mitigation measure shall be incorporated to reduce the impact of potentially unstable fill to a less than significant level.

GEO-1 **Existing Fill Removal.** As recommended in the Preliminary Geotechnical Exploration prepared by ENGEO for the Project, the Project applicant shall completely remove existing fill down to native soil. The native soil shall be scarified and moisture-conditioned before being covered with new engineered fill.

Incorporation of this mitigation measure would reduce the potential impact of unstable existing fill to a less than significant level.

NO: LESS THAN SIGNIFICANT WITH MITIGATION

7d. Expansive Soil

The Project is located on soils with a moderate to high expansion potential (ENGEO 2017). Expansive soil can shrink and swell as a result of moisture changes, and this can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Conventional grading operations, incorporating fill placement specifications tailored to the expansive characteristics of the soil, and use of a mat foundation (either post-tensioned or conventionally reinforced) and deepened footings are common, generally cost-effective measures to address the potential of expansive foundation soils. The preliminary geotechnical exploration by ENGEO includes recommendations that are incorporated into the measure below to reduce risks associated with expansive soils to a less than significant level.

Mitigation Measure

The following mitigation measure shall be incorporated to reduce the potential impact of expansive soils to a less than significant level.

GEO-2 **Expansive Soil Mitigation.** As recommended in the Preliminary Geotechnical Exploration prepared by ENGEO for the proposed Project, the Project applicant shall evaluate the expansion potential of the property soils at the time of design-level study and mitigate expansive soils through appropriate foundation design and during grading activities as recommended in the design-level study. Mitigation may include the use of such common and effective measures as a post tensioned mat foundation, incorporating fill specifications tailored to the onsite soil expansiveness, and keeping exposed soils moist by occasional sprinkling during grading.

Incorporation of this mitigation measure would reduce the potential impact of expansive soils to a less than significant level.

NO: LESS THAN SIGNIFICANT WITH MITIGATION

7e. Wastewater Disposal Systems

The Project site would be served by an existing sewer system run by the Castro Valley Sanitary District. The Project would not involve the use of septic tanks or any other alternative waste water disposal systems. Therefore, no impact resulting from the use of septic tanks or alternative wastewater disposal systems would occur.

NO: NO IMPACT

8. HAZARDS AND HAZARDOUS MATERIALS Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			x	
b) 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?			x	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			x	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		x		
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?				x
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?				x
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			x	
h) 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?			x	

8a,b. Transport, Use, Disposal, and Accidental Release of Hazardous Materials

The Project would involve the construction of 20 three-story townhomes on a 1.13-acre site. Residential uses typically do not use or store large quantities of hazardous materials. Potentially hazardous materials such as fuels, lubricants, and solvents would be used by heavy machinery during construction of the Project. However, the transport, use, and storage of hazardous materials during the construction of the Project would be conducted in accordance with all applicable state and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. The proposed residential uses also would not involve activities that could lead to the reasonably foreseeable accidental release of hazardous materials. Adherence to these requirements would reduce impacts to a less than significant level.

NO: LESS THAN SIGNIFICANT IMPACT

8c. School Exposure to Hazardous Emissions

The nearest existing schools are Castro Valley Elementary School, located 0.3 mile north of the Project site, Our Lady Grace Catholic School located approximately 0.4 mile north, and Strobridge Elementary School located 0.5 mile southwest of the Project. The Project would remain a residential use and would not involve the regular handling or emission of hazardous materials within 0.25-mile of a school site. As discussed in checklist items 8a and 8b, potentially hazardous substances used during construction and

operation of the Project would be handled according to all applicable laws. Therefore, the Project would have a less than significant impact related to the exposure of schools to hazardous materials.

NO: LESS THAN SIGNIFICANT IMPACT

8d. Hazardous Material Sites

In August 2016, the engineering and consulting firm ENGEO completed both *Phase I* and *Phase II Environmental Site Assessments* for 20957 Baker Road and 20785 Baker Road, which identify the extent of soil contamination from past agricultural, commercial and industrial uses on each property. In December 2016, a *Work Plan for Site Characterization* (Work Plan) was prepared to determine in detail the extent and magnitude of soil contamination from Volatile Organic Compounds (VOCs) in the vicinity of two former underground storage tanks (USTs) at the site. Based on the information developed during the historical and site characterization activities, remedial action is required to prepare the site for redevelopment, due to elevated concentrations of Chemicals of Potential Concern (COPCs). A draft *Remedial Action Plan* was prepared and submitted to the Alameda County Department of Environmental Health (ACDEH) on June 29, 2017 for review and approval under the Voluntary Remedial Action Program (VRAP) agreement between the applicant Catalysis Development Partners and ACDEH. A new case was opened on the ACDEH database on January 11, 2017 (Case No. RO0003234) to describe the procedures and protocols for remediation of COPCs in the on-site. More specifically, the Project site is not listed on the Cortese List pursuant to Government Code Section 65962.5; however, it is a listed site with regulatory oversight, which meets the intent of the Cortese List (Adams 2017). Therefore there is a potential for a significant impact due to exposure of the public or the environment to hazardous materials.

Phase I Environmental Site Assessments-20957 Baker Road

A Phase I Environmental Site Assessment was prepared by ENGEO in August 2016 for the property at 20957 Baker Road (see Appendix F). The Phase I report for the property at 20957 Baker Road, dated August 23, 2016, concluded that no Recognized Environmental Conditions were present on the property. However, former leaking underground storage tanks (LUSTs) at the subject property were identified as a historical recognized environmental condition (HREC). The LUST was removed from the site and case closure was reported to have been granted in 2009, although information in the former case file indicated that potential risks via vapor intrusion may not have been adequately addressed during past characterization activities. ENGEO recommended further evaluation of the potential presence of pesticides in the soil, as well as a soil gas survey in the vicinity of the former LUST.

Phase I and Phase II Environmental Site Assessments-20785 Baker Road

ENGEO conducted a Phase I and Phase II ESA for the 20785 Baker Road property in August 2016, which determined that it was formerly used as a corporation yard/storage area for heavy equipment. Prior to development in the 1950's, the property appeared to be under cultivation for row crops surrounding the single-family residential structures. The Phase I ESA and previous assessments of the property identified environmental concerns: 1) Although former leaking USTs at the parcel to the south were removed and a case closure was subsequently granted, the former case file indicated that potential risks via vapor intrusion may not have been adequately addressed during past characterization activities; 2) Recalcitrant agricultural chemicals could be present in near-surface soils from prior agricultural cultivation; 3) Lead-based paint and/or asbestos-containing building materials may be present within structures at the property. ENGEO recommended a Phase II ESA to evaluate potential impacts to near surface soil due to past agricultural activity.

The Phase II ESA evaluated potential impacts to near surface soil due to past agricultural activity. ENGEO found detectable concentrations of lead, arsenic and select organochlorine pesticides present in surface soils likely due to the previous agricultural use of the property. ENGEO stated that the contaminated soil would likely necessitate mitigation to allow for residential re-development of the property, and recommended additional sampling to better define the lateral extent and depth of the contaminated soil.

Volatile Organic Compounds (VOCs) were detected during the soil gas sampling, and concentrations of TPH-gasoline, ethylbenzene, and naphthalene were detected as well. ENGEO recommended that a mitigation program and potentially further sampling/review would likely be needed to facilitate future residential development on site.

The Project would also involve demolition of existing residences that were built prior to the mid-1970s and could potentially contain lead-based paint and asbestos. Buildings built before 1978, when the federal government banned consumer uses of lead-containing paint, may pose a hazard to human health (U.S. EPA 2016a). Potential sources of contamination include the cracking, chipping, or peeling of paint from interior and exterior surfaces, as well as nearby soil where paint fragments may have landed. Lead in soil may be inhaled if resuspended in the air. The potential release of asbestos, a mineral fiber, would increase the risk of developing lung disease (U.S. EPA 2016b). Historically, asbestos-containing materials (ACMs) have been used in a variety of building products, including roofing shingles, ceiling and floor tiles, and cement.

ENGEO recommended pre-demolition surveys for lead-based paint and ACMs to determine if these hazards are present. Consistent with this recommendation, construction activities would be required to comply with regulations of the California Division of Occupational Safety and Health (CalOSHA) regarding lead-based materials. California Code of Regulations, §1532.1, requires testing, monitoring, containment, and disposal of lead-based materials such that exposure levels do not exceed CalOSHA standards. The applicant also would be required to conduct these surveys in compliance with Bay Area Air Quality Management District (BAAQMD) rules. Pursuant to BAAQMD Regulation 11, Rule 2, a thorough survey of the buildings to be demolished for the presence of ACMs would be prepared by a qualified inspector (BAAQMD 1998). Demolition and disposal of ACMs would be conducted in accordance with procedures in sections 303 and 304 of this BAAQMD rule.

ENGEO Work Plan for Site Characterization – 20785 and 20957 Baker Road

ENGEO prepared a Work Plan, dated December 29, 2016, for 20785 and 20957 Baker Road in order to assess the potential soil and soil gas impacts at the Project site (See Appendix F). The purpose of the Work Plan is to determine the potential impacts from past agricultural activities and determine the extent and magnitude of the soil vapor impact in the vicinity of the former underground storage tanks.

In order to define the vertical and lateral extent of the agricultural chemical and former fuel storage impacts in the soil, ENGEO proposed 13 borings to collect samples. The samples would then be analyzed for organochlorine pesticides (EPA Method 8081) and lead/arsenic (EPA Method 6010). In addition, ENGEO proposed at least eight soil gas monitoring wells to gather supplemental soil gas data to analyze for TPH-g and volatile organic compounds (VOCs) by EPA Test Method TO-15 and the presence of helium. Following the completion of the aforementioned field activities, a summary report would be prepared and submitted to the Alameda County Department of Environmental Health (ACDEH) as well as the State Water Resources Control Board (SWRCB).

Remedial Action Plan – 20785 and 20957 Baker Road

A Remedial Action Plan (RAP) has been prepared to describe the proposed procedures and protocols for remediation of COPCs in soils at the Project site. Based on a comparative analysis, as described in Section 4.4 of the draft RAP, Alternative 3, Excavation and Off-Site Disposal is the preferred and recommended removal action alternative for addressing the site. Alternative 3, excavation/offsite disposal remedial action, would consist of removing COPC-impacted soil from the site. The excavated soil would be properly disposed of by directly loading it into trucks for transport to a landfill. Excavation includes using loaders, scrapers, and/or other appropriate equipment. Approximately 1,750 cubic yards of organochlorine pesticide (OCP) and arsenic-impacted soil would need to be excavated from the site. For the total petroleum hydrocarbons (TPH)-impacted soil near the former underground storage tank, the overburden is assumed to be clean, and can be excavated and stockpiled on site. The soil below the

overburden would be excavated to a depth of approximately 10 feet below ground surface. This would yield a volume of approximately 20 cubic yards of TPH-impacted soil to be off-hauled from the site.

The impacted portions of the Site that exhibit COPC concentrations in excess of the soil cleanup would be divided into 30-foot-square grids. An ENGEO representative would observe the excavation activities, providing oversight and coordination when necessary. The initial excavation areas have been determined based on the results of the site investigations performed in 2016 and 2017.

Following excavation of impacted soil, each of the remedial grids would be sampled by the collection of one discrete soil sample from the center-base of the grid and one sample from the two-thirds point of the grid's corresponding sidewalls (two-thirds of the vertical distance up the sidewall from the base). The confirmation samples recovered from the OCP and arsenic impacted grids would be analyzed for OCPs (EPA Method 8081) and arsenic (EPA Method 6010). Confirmation samples recovered from the former UST excavation would be analyzed for TPH-g and VOCs (EPA Method 8260). Grids with base confirmation sampling concentrations exceeding the soil cleanup levels would be re-excavated for an additional 12 inches and re-sampled. Grids with sidewall confirmation sampling concentrations exceeding the soil cleanup levels would be re-excavated laterally an additional 10 feet and re-sampled. Excavation would proceed until the soil cleanup levels are achieved. Grids with confirmation samples below the soil cleanup levels would be considered complete with no further excavation conducted.

Excavation operations would generate dust emissions. Suppressant, water spray, monitoring, and other forms of dust control may be required during excavation, and workers would be required to use personal protective equipment (PPE) to reduce exposure to the COPCs. Sloping excavation sidewalls may result in increased volume of soil requiring excavation. Confirmation soil sampling and analysis would be conducted to verify that cleanup criteria were met at the excavation bottom and sidewall perimeter and excavation would proceed until the confirmation samples show the removal goal has been achieved.

The excavated soil may be temporarily stockpiled onsite. As necessary, the soil stockpiles would be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. The soil stockpiles would be maintained at the site until transported offsite.

Soil remaining within the site, which has been shown to contain COPCs concentrations below the soil cleanup levels, could be used to backfill the contaminated soil excavations. Clean import soil, if any additional soil is needed to achieve a grading balance, would be imported from offsite sources and tested in accordance with the DTSC import fill guidelines. Since the draft RAP does not provide an estimate of clean soil export, the IS-MND analysis conservatively uses the clean soil import estimates under Alternative 2 of the draft Remedial Action Plan. Alternative 2 estimates approximately 2,510 cubic yards of clean soil import.

Upon completion of the excavation work and confirmation sampling, the excavations would be backfilled with clean import fill. Import fill would be tested in accordance with DTSC requirements, prior to acceptance.

All excavated soil at the site is anticipated to be Class II material (i.e., less hazardous than Class I material). The excavated soil from the site is anticipated to be disposed of at either the Altamont or Vasco Landfill in Livermore, California, which are approved to receive Class II contaminated soils.

Because soil sampling was sufficient to delineate the vertical and lateral extent of concentrations of arsenic, organochlorine pesticides, and petroleum hydrocarbons that exceeded the latest Environmental Screening Levels (ESLs) provided by the San Francisco Bay Regional Quality Control Board; and Mitigation Measure HAZ-1 would ensure approval of the Remedial Action Plan by the ACDEH and its

effective implementation, the potential to expose health hazards to people or the environment on the project site are less than significant with mitigation.

Mitigation Measure

Mitigation Measure HAZ-1 would be required to adequately assess the extent of soil contamination on the Project site and safely dispose of contaminated soil at an off-site location.

HAZ-1 **Soil Testing and Disposal.** Prior to obtaining a grading permit, the applicant shall submit the results of ENGEO's June 2017 *Remedial Action Plan* to the ACDEH for approval. Past soil sampling was sufficient to delineate the vertical and lateral extent of concentrations of arsenic, organochlorine pesticides, and petroleum hydrocarbons that exceeded the latest ESLs provided by the San Francisco Bay Regional Quality Control Board. The volume of soil with contaminants that exceed their respective ESLs shall be disposed of at a facility licensed to receive Class II non-hazardous waste as determined to be appropriate by the site assessor, such that remaining soil on-site does not exceed ESLs.

Implementation of Mitigation Measure HAZ-1 would ensure that soil contamination is remediated to the extent that people on the Project site are not exposed to health hazards. Impacts would be less than significant with mitigation.

NO: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION

8e,f. Airport Safety

The airport nearest to the Project site is the Hayward Executive Airport, located approximately 2.5 miles southwest of the Project site. The Project site is not located within the Hayward Executive Airport influence area or boundary (City of Hayward General Plan Land Use Designations 2012). The second nearest airport or airstrip is the Oakland International Airport located approximately seven miles west of the Project site. The Project site is not located in the Oakland International Airport influence area or boundary (Land Use Compatibility Plan 2010). In addition, no private airports or air strips are located in the vicinity of the Project site. Given the distance between the nearest airports and the Project site, the proposed Project would not result in airport-related safety hazards that could impact people residing or working at the Project site. No impact would occur.

NO: NO IMPACT

8f. Emergency Response

As required by State law, Alameda County has established emergency preparedness procedures to be prepared for and respond to a variety of natural and manmade disasters that could confront the community. Emergency and disaster planning is primarily conducted through the Public Health Department and its subsidiary Emergency Medical Services and Disaster Preparedness Program (DPP), in collaboration with other County departments. Construction and operation of the Project would not interfere with any existing emergency response plans in Alameda County. Construction may result in temporary traffic issues; however, the County would be informed of the construction schedule prior to the initiation of any construction or demolition activities. No roads would be permanently closed as a result of the Project, and the Project would not involve the construction of any structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Additionally the Project would be built according to all applicable safety codes to ensure safety and structural integrity. Therefore, impacts would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

8h. Wildfire Hazards

The Project site is located in an urbanized part of Castro Valley and there are no wildlands in the Project vicinity. Lake Chabot Regional Park and Anthony Chabot Regional Park are located approximately two miles north of the Project site, while Garin Regional Park and Dry Creek Pioneer Regional Park are located approximately five miles south of the Project site. As shown in CAL FIRE's mapping of Very High Fire Hazard Severity Zones in Alameda County, the Project site is not located in a fire hazard severity zone (CAL FIRE 2008). Therefore, residents at the proposed townhomes would not be at risk of exposure to a substantial risk of loss, injury or death involving wildland fires; impacts would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

9. HYDROLOGY AND WATER QUALITY Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Violate any water quality standards, conflict with water quality objectives, fail to meet waste discharge requirements, significantly degrade any surface water body or groundwater, or adversely affect the beneficial uses of such waters, including public uses and aquatic, wetland and riparian habitat?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (i.e. within a watershed)?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff (e.g., due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems due to changes in runoff flow rates or volumes?			X	
f) Result in a significant increase in pollutant discharges to receiving waters (marine, fresh, and/or wetlands) during or following construction (considering water quality parameters such as temperature, dissolved oxygen, turbidity, and typical stormwater pollutants such as heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)?			X	
g) Result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act?			X	
h) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?		X		
i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		X		
j) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
k) Inundation by seiche, tsunami, or mudflow?			X	

Setting

Castro Valley lies in the San Lorenzo Creek Watershed, which drains to the eastern shore of the San Francisco Bay (Alameda County Flood Control and Water Conservation District 2017). Castro Valley is surrounded by creeks and drainages flowing southerly and then westward from the East Bay hills that surround most of Castro Valley on the west, north and east. The nearest creek to the project site is Chabot Creek, which flows south to San Lorenzo Creek through an engineered (concrete-lined) channel. San Lorenzo Creek is approximately 1.0 mile south of the Project site; and Chabot Creek is approximately 0.05-mile (under 300 feet) west of the Project site, and Castro Valley Creek is approximately 0.7-mile east of the Project site. In addition, there are three large bodies of water in the Project vicinity, including South Reservoir, a covered water supply reservoir approximately 0.5-mile south of the Project site, Cull Canyon Reservoir an estimated 1.7-mile northeast of the Project site, and Don Castro Reservoir, approximately 1.6-mile east of the Project site.

Castro Valley experiences a Mediterranean climate, generally dry in the summer with cool, wet winters. Winter days are moderately cool with an average high temperature in December and January of approximately 58 degrees Fahrenheit, and an average December low temperature of 41 degrees Fahrenheit. Summer weather in Castro Valley is warm, with an average high temperature in July and August of 76 degrees Fahrenheit, and an average low temperature in July and August of 54 degrees Fahrenheit. Most rainfall occurs between November and March, with an average annual rainfall of 26 inches. The wettest months of the year are January and February, with an average rainfall of 5.20 and 4.64 inches, respectively (Local Information Data Server 2017).

Impacts

9a, f. Water Quality Standards and Pollutant Discharges to Receiving Waters.

Pursuant to Alameda County regulations Section 13.08.250, the applicant would be required to obtain a stormwater permit prior to construction. The permit application includes stormwater quality controls that must adhere to the County's National Pollutant Discharge Elimination System (NPDES) permit. In addition, in order to comply with the State's Construction General Permit Order (2009-0009-DWQ), the applicant must provide a Storm Water Pollution Prevention Plan (SWPPP) that must be reviewed and approved by the Director of Public Works. The SWPPP would require the use of Best Management Practices (BMPs), such as gravel bags, silt fences, hay bales, check dams, hydro seed, mulch, and soil binders during construction. These BMPs would prevent excessive storm water runoff pollution. The SWPPP must be approved by Alameda County prior to the issuance of a grading or building permit. Therefore, the Project's impacts related to violation of water quality standards would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

9b. Groundwater Supplies and Recharge.

Potable water for the Project site is supplied by the East Bay Municipal Utility District (EBMUD) (EBMUD 2017). Water supplied by EBMUD is currently 100 percent sourced from surface water supplies. EBMUD's primary source of water is the Mokelumne River, and secondary source of water is local runoff from the East Bay area watersheds, which is stored in the terminal reservoirs within EBMUD's service area (EBMUD 2016). Castro Valley is underlain by the Castro Valley groundwater basin within the San Francisco Bay hydrologic region. The basin extends from Lake Chabot in the north to the intersection of Jackson Street with U.S. Highway 238 in the south. Castro Valley, Crow Canyon, and Cull Canyon are free groundwater areas that are replenished by direct infiltration and percolation of rainfall, streamflow excesses of applied irrigation water and by subsurface inflow from adjacent foothills. These groundwater areas form the principal sources of recharge for the confined groundwater area of the East Bay Plain. Groundwater quality of the Castro Valley groundwater basin is generally of the bicarbonate type containing calcium and sodium as the predominant cations. Uses of the groundwater

should generally be restricted to non-potable purposes. The permeability and near surface proximity of the thin alluvial deposits make them susceptible to contamination and should eliminate their consideration as a source of drinking water. Data on the number and yield of wells in the Castro Valley area is limited; the very few existing wells are principally domestic (Alameda County 2007; California Department of Water Resources 2017). Analysis of water supplies that would serve the proposed Project is provided below in Section 17, *Utilities and Service Systems*. The Project site currently consists of a duplex and one single-family detached residence, as well as a partially paved vacant lot. The Project site presently contains 44,988 square feet of impervious surface. Of the total existing 44,988 square feet of existing impervious surface, the Project would replace 35,424 square feet of impervious surface with other types of impervious surface, while the remaining 9,564 square feet of impervious surface would be removed, decreasing the overall area of impervious surfaces on-site (Alameda County PWA 2017). The Project developer would also be required to comply with Alameda County's MS4 permit as well as implementation of a hydromodification management plan (see Impact 9c-e), which requires that the amount of runoff from the site must be the same before and after any construction project. Consequently, the Project would not substantially interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Impacts associated with groundwater supply would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

9c-e. Drainage Pattern Alterations Leading to Erosion and Increased Surface Runoff, and Stormwater Drainage Capacity.

The Project would involve grading to alter the existing surface drainage pattern, which currently flows from east to west (from Baker Road to Rutledge Road), and would establish an altered surface drainage pattern to convey stormwater in the west to east direction (Rutledge Road to Baker Road), allowing stomwater runoff to be conveyed to the proposed bio-retention basins bordering the Baker Road frontage. In addition to the proposed stormwater drainage improvements, Alameda County requires certain Projects to implement a hydromodification management plan, which focuses on retaining, detaining, or infiltrating runoff and matching post-Project flows and durations to pre-Project patterns for a specified range of smaller, more frequent rain events, to prevent increases in channel erosion downstream. As described in Chapter 7 of the C.3 Stormwater Technical Guidance handbook, projects are required to comply with hydromodification requirements if the following criteria are met: (Alameda County 2016):

- The Project creates and/or replaces one acre or more of impervious surface
- The Project will increase the impervious surface over pre-project conditions, and
- The Project is located in a susceptible area, as shown on the default susceptibility map

The Project would fall within one of the three applicable categories: creating or replacing one acre or more of impervious surface. The Project site is not within a susceptible area, as shown in the susceptibility map, provided in the C.3 Stormwater Technical Guidance handbook (Alameda County 2016). Susceptible areas include: (1) hilly areas with high slopes (greater than 25 percent); (2) upstream areas with concerning factors, such as, bank instability, sensitive habitat, or restoration projects; (3) land area between hills and the tidal zone. Because the Project would be required to include site drainage systems according to standards and provisions set forth by the County, impacts related to drainage patterns, runoff, and stormwater drainage capacity would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

9g. Pollutant Discharges to Impaired Water Body.

Water bodies near the Project site that are listed as impaired under Section 303(d) of the Clean Water Act include San Lorenzo Creek (for Diazinon), which is located approximately 1.0-mile south of the Project site (State Water Resources Control Board [SWRCB] 2011).

However, as previously discussed in Impact 9a *Water Quality Standards*, the Proposed Project would be required to provide a SWPPP that must be reviewed and approved by the Director of Public Works, and integrate BMPs to construction activities and would also be required to implement a hydromodification management plan (see Impact 9c-e). Implementation of these plans during construction and operation of the Project would require the use of BMPs, low-impact development features, and other measures that would reduce the amount of runoff, improve the water quality of the runoff, and slow down the pace of the runoff from the Project site; therefore, the Project would result in a less than significant impact regarding pollutants reaching the impaired water bodies listed above.

NO: LESS THAN SIGNIFICANT IMPACT

9h and 9i. 100-Year Flooding Hazards.

According to the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map (FIRM) number 06001C0279G, the Project site is in the Special Flood Hazard Area, which is an area subject to inundation by the one percent annual chance flood (100-year flood) (FEMA 2009) (see **Figure 18**). The Base Flood Elevation (BFE) of the Project site along the northwestern boundary is approximately 160 feet above mean sea level (msl), while the remainder of the Project site is within the one percent annual chance flood area, with average depths of less than one foot or with drainage areas less than one square mile (FEMA 2009). Therefore, the Project would place housing within a 100-year flood hazard area, and could impact flood patterns, and/or put people or structures at risk from natural flooding.

Alameda County Municipal Code (ACMC), Chapter 15.40 *Floodplain Management,* requires applicants to obtain a development permit for any construction within an "area of applicability" to reduce the effects of flood-related losses. Per Section 15.40.035, the "area of applicability" includes Special Flood Hazard Areas, such as the project site (Alameda County 2016).

The Project includes site modifications consisting of grading to elevate the project site by approximately one foot above the floodplain elevation in order to remove the northwestern boundary of the site from the Special Flood Hazard Area. The applicant intends to apply for a Conditional Letter of Map Revision based on Fill (CLOMR-F). FEMA would then review the CLOMR-F and determine based on final site design plans whether or not the proposed development would be eligible to be removed from the Special Flood Hazard Area. If FEMA accepts the CLOMR-F, then following construction the applicant would need to demonstrate that the proposed project "as-built" matches the submitted final site designs that were used to support the CLOMR-F. After FEMA determines that the project "as built" matches the previously submitted final site design plans, the agency would issue a Letter of Map Revision Based on Fill (LOMR-F) to remove the Project site from the Special Flood Hazard Area.

Compliance with Alameda County Code Section 15.40, *Floodplain Management*, and Mitigation Measure FLOOD-1 is required to ensure the project complies with FEMA flood protection measures and to ensure that on-site structures and people would not be exposed to a significant risk of loss, injury or death involving flooding.

Mitigation Measure.

FLOOD-1 **Flood Insurance Rate Map.** Prior to approval of the Tentative Map, the applicant shall obtain a revision to the Flood Insurance Rate Map from FEMA with support from the County. This process will first entail the applicant applying for a CLOMR-F. FEMA would then review the CLOMR-F and determine based on final site design plans whether or not the proposed development would be eligible to be removed from the Special Flood Hazard Area. If FEMA accepts the CLOMR-F, then following construction the applicant would need to demonstrate that the proposed Project "as-built" matches the submitted final site designs that were used to support the CLOMR-F. After FEMA determines that

the Project "as built" matches the previously submitted final site plans, the agency would issue a LOMR-F to remove the project from the Special Flood Hazard Area.

NO: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION

9j. Flooding From Levee or Dam Failure.

As previously discussed in the *Setting* Subsection of this Section, there are three reservoirs ranging from 0.5 to 1.7-mile from the Project site. Although the reservoirs are nearby, the Alameda County *General Plan Natural Hazards and Public Safety* Chapter, within Figure 10-2, shows that the Project site is not within an inundation area and therefore the Project would not expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam (Alameda County 2012).

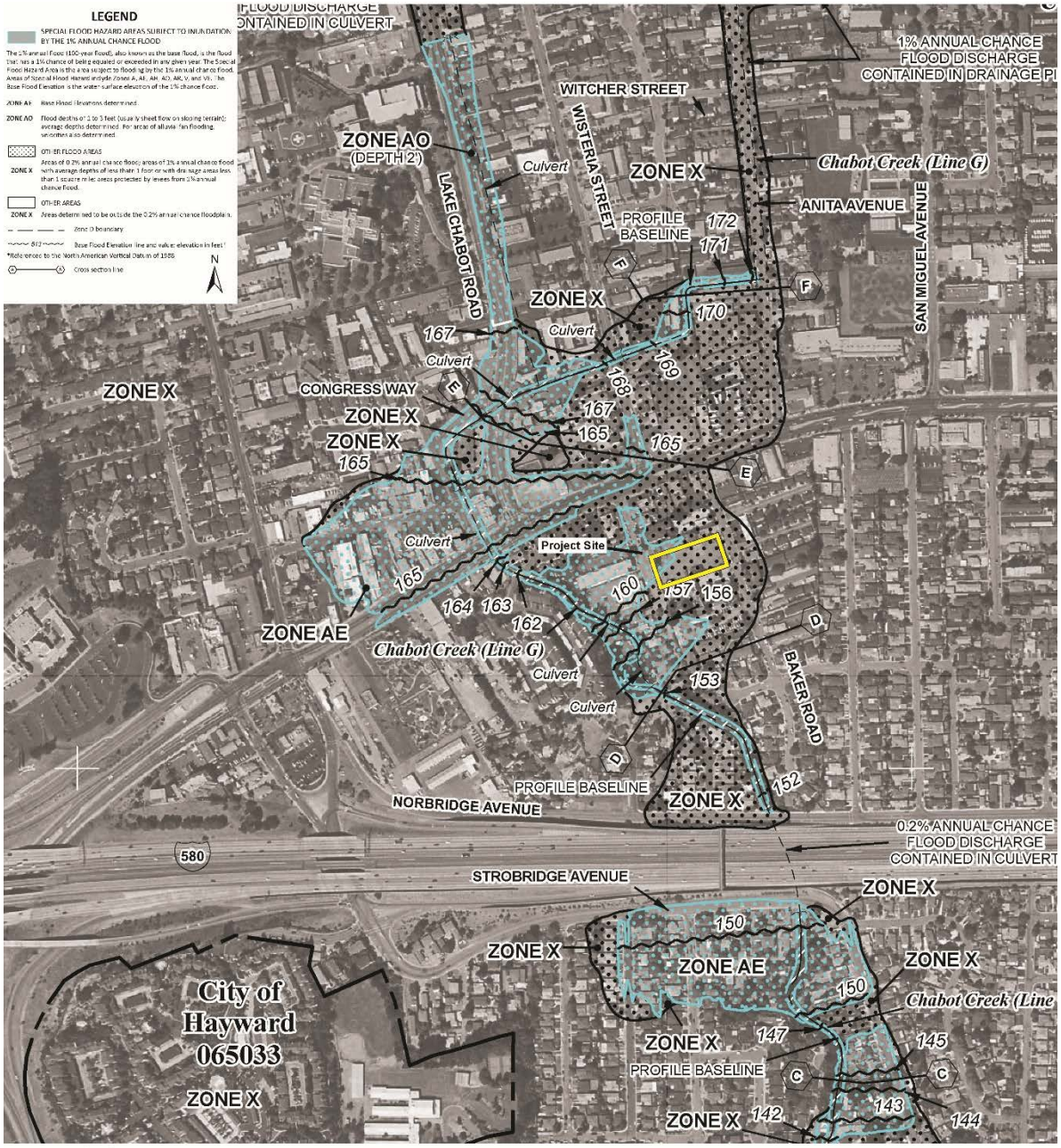
NO: LESS THAN SIGNIFICANT IMPACT

9k. Inundation by Seiche, Tsunami, or Mudflow.

A tsunami is a tidal wave produced by off-shore seismic activity; seiches are seismically-induced waves that occur in large bodies of water, such as lakes; and a mudflow is a fluid or hardened stream or avalanche of mud. According to the Tsunami Inundation Map for Emergency Planning produced by the California Emergency Management Agency (CalEMA), the University of Southern California, and the California Geological Survey, the Project site is not located within a tsunami hazard zone (CalEMA 2017). Additionally, because the Project site is not in close proximity to a large body of water (the South Reservoir being the closest at 0.5-mile south from the Project site), seiches are not a significant concern. Although not directly addressed by Castro Valley's General Plan or Alameda County's General Plan, the Project site is on a relatively flat lot in an urbanized area of Castro Valley, considerably west of the hills that have the potential for landslides; therefore mudflows are not a significant concern. Therefore, a less than significant impact related to these hazards would occur.

NO: LESS THAN SIGNIFICANT IMPACT

Figure 18 100-Year Flood Federal Emergency Management Agency Flood Insurance Rate Map



Source: Federal Emergency Management Agency, 2009.

10. LAND USE AND PLANNING Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Physically divide an established community.				×
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				×
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				×

Setting

The Project site encompasses 1.13 acres and is located at 20785 and 20957 Baker Road, approximately 250 feet south of Castro Valley Boulevard between Rutledge Road on the west and Baker Road on the east in the unincorporated community of Castro Valley in Alameda County. The Project site is in an urbanized area in proximity to the Theater and Entertainment District along Castro Valley Boulevard, as designated in the Castro Valley Central Business District Specific Plan (CVCBD SP), and surrounding land uses include residential homes and commercial buildings (Alameda County 1993). Residential uses in the vicinity of the Project site are comprised of multi- and single-family homes on parcels that are 5,000 square feet or greater. The community character is mainly urban residential due to the concentration of medium to high density residential uses in proximity to community commercial and entertainment land uses bordering Rutledge Road and along Castro Valley Boulevard (Alameda County CDA 2012). As shown in Figure 3-1, *Community Development Strategy* in the Castro Valley General Plan, the Project site is located in an area identified for medium to high density infill development, due to existing road and transit networks that provide residents with access to jobs, shopping areas, and commercial services.

Land Use and Planning Policies:

Plans, policies, and regulations applicable to the Project site include the Castro Valley General Plan (2012), the Alameda County Zoning Ordinance, the Castro Valley Central Business District Specific Plan (1993), and the Residential Design Standards and Guidelines for the Unincorporated Communities of West Alameda County (2014).

The Project site General Plan land use designation is Residential – Downtown Medium Density. The Project site is zoned Central Business District (CBD) Subarea 11W and is governed by the Castro Valley Central Business District Specific Plan. Within the CBD Subarea 11W zone, the development standards for Land Use Group D (High Density Residential) apply to the Project site (Alameda County 1993).

Impacts

a) Dividing an Established Community

The Project site is surrounded on all sides by urban development. Implementation of the Project would be compatible with existing residential development patterns along the east and west sides of Baker Road, the remainder of the block to Kerr Street, and along the east and west sides of Rutledge Road south of the Hayward-Castro Valley Moose Lodge (located at 20835 Rutledge Road). The Project would include one private driveway to provide access to individual unit garages, driveways, and guest parking spaces within the development. The Project would not include construction of any new roads, linear infrastructure, or other development features that would divide an established community or limit movement, travel, or

social interaction between established land uses. There is no existing path or record of such a path of travel through the Project site between Baker and Rutledge Roads. Therefore, there would be no impact to an established community.

NO: NO IMPACT

b) Conflicts with Land Use Plan or Zoning

The Central Business District (CBD) is Castro Valley's downtown area, which covers more than 350 acres (Alameda County CDA 2012). Castro Valley Boulevard is the community's "Main Street," lined with commercial uses, which include a mixture of local and neighborhood retail, office, and auto-related services. The CBD consists of 11 subareas. Major subareas proximate to the Project site include: the Downtown Core (subarea 7), approximately one-quarter mile east of the Project site; the Theater and Entertainment District (subarea 5), approximately 0.1 mile north of the Project site; and Transit Village (subareas 8 and 9), approximately 0.5 mile southeast of the Project site. The Project site is located approximately 350 feet south of Castro Valley Blvd., in an area conducive to implementing the major initiatives outlined in the Castro Valley General Plan, including the following:

- *#13. Housing In and Around the Town Center*: Adding new housing in and around the town center to meet housing needs for smaller and more affordable units, and offer housing where residents can walk to shops and transit (Alameda County CDA 2012).

As such, the Project would comply with the Castro Valley General Plan and the Castro Valley Central Business District Specific Plan (CBD Specific Plan) in providing a new townhome development within CBD Subarea 11W, which is the residential portion of the Downtown Castro Valley Planning Area as shown in Figure 4-5 *Castro Valley Neighborhoods* and Figure 4-6 *CBD Strategic Plan Elements* in the Castro Valley General Plan (2012). The Project site is centrally located near major CBD subareas that contain a mix of commercial services for residents, such as the Castro Village shopping center and the Castro Valley BART station, both of which are approximately 0.5 miles east of the Project site.

Pursuant to CEQA Guidelines 15125(d), Table 11 provides a consistency analysis of the proposed Project with relevant policies and actions in the Castro Valley General Plan and the Castro Valley CBD Specific Plan.

Table 11 Project Consistency with the Castro Valley General Plan and CBD Specific Plan Policies

General Plan Policies	Analysis
Land Use and Community Development	
Policy 4.3-1 Infill Housing and Mixed-Use. Designate areas for infill housing and mixed-use development to meet a wide range of housing needs.	**Consistent.** The Project entails the construction of new infill housing on 1.13 acres within CBD Subarea 11W, which only allows for residential development.
Action 4.3-9 Streets in New Subdivisions. Streets in new subdivisions shall provide adequate access for residents, emergency vehicles, and service vehicles. • Public streets shall be provided for subdivisions greater than 10 lots. • In subdivisions with 10 or fewer lots, particularly in hillside areas, private streets may be permitted, provided that they meet established standards.	**Consistent.** The Project site consists of two parcels that would be subdivided into four building lots to accommodate the Project. The Project includes a private driveway running through the middle of the Project site to provide access to residential garages for the 20 townhome units. The private driveway would be 20 feet wide, and provide two lanes (10 feet wide each) to accommodate residential traffic running east and west through the site. However, this Action is deemed to apply only to single-family residential subdivisions, and no public street would be required for the Project.

General Plan Policies	Analysis
Action 4.3-10 Private Street Standards. Establish consistent standards for private streets depending on the number of units that the street will serve the number of required parking spaces per unit, and reasonable access requirements and operational needs of emergency access vehicles and garbage. • Minimum paved roadway width requirements (i.e., 20 feet for roads serving five or more units or when part of required fire apparatus access, and 12 feet for roads serving between two and five units that is not part of required fire apparatus access). • Turnarounds • Landscaping • Red curbs and signage for no parking zones • Sidewalks, and • Parking standards.	**Consistent.** The Project includes a 20-foot wide private driveway with turnaround space for vehicles at the end of the driveway along Rutledge Road. Each townhome unit would have two covered parking spaces in the garages on the ground level. A total of 21 on- and off-site guest parking stalls would be included as part of the Project, which includes one ADA-accessible space. Six off-site guest parking spaces are assumed to be available on Baker Road. Common open space and landscaping would be included along the perimeter of the Project site and additional common open space would be near the middle of the site adjacent to three guest parking spaces. Sidewalks along the northern and southern boundary of the Project site behind the two rows of townhomes would provide pedestrian access to Baker Road, and emergency access to Rutledge Road.
Community Character and Design	
Action 5.1-1 Require Visual Impact Analysis. Require visual impact analysis during the development review process for public and private Projects to ensure protection of views to natural areas from public streets, parks, trails, and community facilities.	**Consistent.** Section 1 *Aesthetics* of this Initial Study contains project analysis for impacts on scenic vistas and resources, neighborhood character and visual quality, and light and glare. The Project site is located in a generally flat, urbanized area of Castro Valley, and no scenic vistas or natural areas are visible from the site, nor are there any parks or trails nearby that would have views affected by the Project. The Project would not have a significant impact on existing viewsheds, and the visual character and building mass of the proposed townhomes would be compatible with the surrounding mixed-density residential neighborhood.
Policy 5.2-1 Neighborhood Character. Ensure that new residential development is consistent with the desired community character, protects sensitive biological resources, and is not subject to undue natural hazards.	**Consistent.** The Project site is in an area with mixed residential densities that consist of a few single-family homes among mostly multi-family residential units (including an apartment complex located at 20718 Rutledge Road along the northern boundary of the site and the newer Magnolia Grove Apartments located at 21019 Baker Road), with commercial development along Castro Valley Boulevard to the north. The proposed townhome development would comply with the CBD-RMX zone designation in CBD Subarea 11W. As detailed in Section 4, Biological Resources

General Plan Policies	Analysis
	and Section 8, *Hazards and Hazardous Materials*, implementation of the Project would not result in significant impacts to sensitive biological resources or be subject to significant natural hazards.
Policy 5.2-2 Residential Design. Ensure that residential development Projects comply with all adopted design standards and guidelines.	**Consistent.** As detailed in Table 12 below, the Project has been designed to comply with Section 2.5 *Multi-Family Residential Standards* in the Residential Design Standards and Guidelines For the Unincorporated Communities of West Alameda County (2014). The project is consistent with standards specified for development intensity and neighborhood compatibility, building height and form, setbacks, parking, and usable open space.
Policy 5.2-4 Lot Sizes. Lot sizes shall be consistent with the desired character of the area.	**Consistent.** According to the Residential Design Standards and Guidelines for the Unincorporated Communities of West Alameda County (2014), the minimum building site per dwelling unit is 2,500 square feet with a minimum lot size between 10,000 to 20,000 square feet parcels in Land Use Group D, Subarea 11W (summarized in Table 12). The Project site is 47,480 square feet, and would be divided into four 11,870-square foot lots, within the range of surrounding lot sizes.
Land Use and Community Development – CBD Specific Plan	
Action 4.7-6 Housing Downtown. Additional residents in downtown will support businesses and services there, take advantage of BART and bus transit service, and reduce the demand for development in outlying areas of the community with environmental or other development constraints. • Create additional housing, including apartments, condominiums, and live-work, in and within walking distance of the Central Business District. • Convert existing mobile home parks consistent with underlying zoning into new residential, commercial, or mixed-use development, and make best efforts to include or provide housing units on-site or elsewhere within Castro Valley affordable to existing residents or mobile home parks.	**Consistent.** The Project entails construction of 20 townhomes on a site that currently contains a duplex and one single-family residence, thereby increasing residential development and density for the site. As identified in Figure 3-1 *Community Development Strategy* of the Castro Valley General Plan, the Project site is located in an area identified for infill opportunities in order to meet the major initiatives for the Castro Valley plan area, which includes the provision of more residential homes within the Central Business District (2012). The Project site is centrally located, with commercial services, retail centers, and the Castro Valley BART station within a 0.5 mile radius.

The development standards for Land Use Group D apply to the Project site. **Table 12** provides a summary of design standards applicable to medium density residential development for the Project site.

Table 12. Castro Valley Central Business District, Medium Density Residential Development Standards for Land Use Group D (Subarea 11W)

Standard	Requirement	Project	Consistent (Y/N)
Development Intensity and Neighborhood Compatibility			
Minimum Building Site	20,000 square feet	49,223 square feet	Y
Minimum Lot Width	100	164	Y
Maximum Density (dwelling units/net acre)	17.4 – 21.8	19.7	Y
Minimum Building Site/Dwelling Unit	2,000 square feet	2,461	Y
Maximum Net Density	21.8	19.7	Y
Maximum Lot Coverage (%)	55	40	
Building Height and Form			
Maximum Height	45 feet	36.5 feet	Y
Height Exception	(none)	+5 feet for 3rd Story Exception	n/a
Maximum Stories	3	3	Y
Stories Exception	4	n/a	n/a
Setbacks for Light, Air, and Privacy (Minimum)			
Front	20 feet	23.8 feet	Y
Side	1st Story: 10 feet 2nd Story: 10 feet 3rd Story: 15 feet	16.9 to 20.4feet 20.9 to 24.9 feet 23.4 to 27.4 feet	Y
Rear	1st Story: 20 feet 2nd Story: 20 feet 3rd Story: 25 feet	26.0 to 27.3 to feet 26.0 to 29.3 feet 29.8 to 31.1 feet	Y
Parking Location and Design			
Unit Parking (space per unit)	2 bedrooms or more: 2 Total Required: 40	40	Y
Guest Parking (space per unit)	0.5 Total Required: 10	21	Y
Useable Open Space			
Minimum Total Usable Open Space	300 square feet per unit	10,170 square feet, 509 square feet per unit	Y
Minimum Common Usable Open Space	1,000 square feet, no less than 100 square feet per unit	4,162 square feet, 208 square feet per unit	Y
Minimum Private Usable Open Space	75 square feet per unit	7,198 square feet,360 square feet per unit	Y

Source: Adapted from Alameda County, 1993; Alameda County CDA, 2014.

The Project would be compatible with medium-density residential development per the Castro Valley General Plan and the Countywide General Plan Elements, as analyzed in **Table 11**. The proposed townhomes comply with Section 2.5 *Multi-Family Residential Standards* in the Residential Design Standards and Guidelines for the Unincorporated Communities of West Alameda County (2014) for Land Use Group D, as summarized in **Table 12**. Therefore, implementation of the Project would have no impacts in this regard.

NO: NO IMPACT

c) Conflict with Conservation Plan

The Project site is not located within a designated habitat conservation plan area, natural community conservation plan area, or other adopted conservation plan area. There are no conservation plans either currently in force or proposed for application to the Project site or vicinity. The Project site is not located in an area containing special status species or sensitive habitats (Alameda County CDA, 2012). Therefore, the Project would have no impact from conflicts with a conservation plan.

NO: NO IMPACT

11. MINERAL RESOURCES Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				×
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				×

11a-b. Mineral Resources

No areas within the Project site are zoned or designated for mining uses or are actively mined. The Project site located in a MRZ-3 area, as classified by the Division of Mines and Geology (1986). An MRZ-3 area is an area where minerals may be present in the region (2000). The Project does not involve the use or mining of mineral resources. The geology and soils of the site do not indicate the potential for valued mineral resources to be present. Therefore, no impact would occur.

NO: NO IMPACT

12. NOISE Would the Project result in:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			x	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		x		
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?			x	
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?		x		
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?			x	
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?			x	

Setting

Sound level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

The duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used sound metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted sound level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average sound level). Typically, Leq is summed over a one-hour period.

The time period in which sound occurs is also important since sound that occurs at night tends to be more disturbing than that which occurs during the daytime. The Day-Night average level (Ldn) recognizes this fact by weighting hourly Leqs over a 24-hour period. The Ldn is a 24-hour average sound level that adds 10 dB to actual nighttime (10:00 PM to 7:00 AM) sound levels to account for the greater sensitivity to noise during that time period.

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Sound level measurements include intensity, frequency, and duration, as well as time of occurrence.

Some land uses are considered more sensitive to noise intrusion than other uses due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, parks, and outdoor recreation areas are more sensitive to noise than are commercial and industrial land uses.

Policy 11.1-1 in the Castro Valley General Plan (2012) establishes an exterior noise standard of 70 dBA CNEL for the placement of new noise-sensitive uses and requires the incorporation of mitigation measures as needed to ensure that interior noise levels are acceptable. While the Castro Valley General Plan does not identify an interior noise standard, the Alameda County Noise Element and Building Code establish an interior noise level of 45 dBA Ldn for new residences. In addition, Section 6.60.040 of the Alameda County Noise Ordinance establishes regulations and standards regarding the generation of noise from on-site sources such as mechanical equipment. The regulations identify exterior noise levels impacting residential or commercial land uses. Noise level standards are set forth in **Table 13**.

Table 13. Non-Commercial Noise Ordinance Limits

Category	Cumulative Minutes in one hour period	Daytime, dBA (7 AM – 10 PM)	Nighttime, dBA (10 PM – 7 AM)
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

Note: Non-commercial uses include Single- or Multiple-Family Residential, School, Hospital, Church, or Public Library properties.

Source: Alameda County Municipal Code, Section 6.60.040.

Vibration is a unique form of noise. It is unique because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

The Alameda County Noise Ordinance (Section 6.6050.B.8) establishes that the operation of any device that creates a vibration exceeding the vibration perception threshold of an individual at or beyond the property boundary of the source would be prohibited on any private property. Since no numerical vibration thresholds have been adopted by Castro Valley or Alameda County, vibration impacts would be significant if they exceed the following Federal Railroad Administration (FRA) thresholds:

- 65 VdB where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools
- 95 VdB for physical damage to extremely fragile historic buildings
- 100 VdB for physical damage to buildings

Construction-related vibration impacts would be less than significant for residential receptors if they are below the threshold of physical damage to buildings and occur during the City's normally permitted hours of construction. As described above, construction hours are during the daytime and would therefore not normally interfere with sleep.

Three 15-minute noise measurements were collected using an ANSI Type II integrating sound level meter in the Project area on Tuesday, February 14, 2017, between 7:01 AM and 7:52 AM, which is during AM peak hours. One measurement was taken on Baker Road at the southeast corner of the Project site near the adjacent residence to characterize maximum existing noise levels on Baker Road. A second measurement was taken on Castro Valley Boulevard between Baker Road and Rutledge Road to characterize noise levels from traffic at the major roadway by the project. A third measurement was taken on Rutledge Road at the northwest corner of the Project site near the adjacent apartment complex to characterize maximum existing noise levels on Rutledge Road. The measured noise levels at these locations were 58.3 dBA Leq, 70.0 dBA Leq, 60.4 dBA Leq, respectively (see Appendix G for noise measurement results). See **Table 14** for the measured noise levels and **Figure 19** for a map of the locations of the noise measurements.

Table 14. Noise Measurements

Noise Measurement Location	Sample Time	Leq (dBA)
1. Baker Road at southeast corner of Project site	7:01 AM – 7:16 AM	58.3
2. Castro Valley Road between Baker Road and Rutledge Road	7:19 AM – 7:34 AM	70.0
3. Rutledge Road at northwest corner of Project site	7:37 AM – 7:52 AM	60.4

Source: Field visit on February 14, 2017 using an ANSI Type II integrating sound level meter.

Refer to Appendix G for noise monitoring data sheets. Note that a fourth measurement on Rutledge Road south of the Project site was excluded due to noise from garbage trucks interrupting the measurement.

Figure 19 Noise Measurement Locations

Impacts

12a, c. Noise Standards/Increase in Long-Term Noise Levels

Long-term operational noise is addressed below. Temporary construction noise is addressed in checklist item 12d.

Noise associated with operation of the proposed residences may be periodically audible at adjacent single-family and multi-family residences. Noise events that are typical of residential developments include music, conversations, doors slamming, and children playing. On-site operations are expected to also involve noise associated with rooftop ventilation, heating systems, and trash hauling. However, noise levels associated with operation of the Project are expected to be comparable to those associated with the existing residential and commercial uses around the Project site. On-site operational noise associated with the proposed residences is not expected to exceed the Alameda County Noise Ordinance's limits for non-commercial uses as shown in Table 13.

The Project would also affect long-term noise in the vicinity by increasing traffic volumes on area roadways. Impacts would be significant if Project-generated traffic results in exposure of sensitive receptors to unacceptable noise levels. The Federal Transit Administration's recommendations in its Transit Noise and Vibration Impact Assessment (2006) were used to determine whether or not increases in roadway noise would be significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase. **Table 15** shows the significance criteria for increases in traffic-related noise levels caused by the Project.

Vehicles would gain access to the Project site via a driveway from Baker Road on the eastern side of the property. Fifteen-minute noise measurements taken on a weekday during the AM peak hour on February 14, 2017 indicate that typical noise levels are 58.3 dBA Leq on Baker Road near the Project site (see Appendix G for detailed noise measurement results and **Figure 19** for measurement locations). Based on **Table 15**, for residences on Baker Road adjacent to the Project site and subject to existing traffic noise between 55 and 60 dBA, the allowable increase in noise exposure from Project-generated traffic would be 3 dBA, i.e., the maximum increase that would not be considered a significant Project impact or require mitigation.

Table 15. Significance of Changes in Operational Roadway Noise Exposure (DNL or Leq in dBA)

Existing Noise Exposure	Allowable Noise Exposure Increase
45-50	7
50-55	5
55-60	3
60-65	2
65-75	1
75+	0

Source: Federal Transit Administration 2006.

According to the Transportation Impact Study prepared for the Project by Wood Rodgers (February 2017), the Project is anticipated to generate a total of 159 daily trips, including 14 AM peak hour trips and 16 PM peak hour trips. The Transportation Impact Study reported that existing traffic along Baker Road

included 89 vehicles during the AM peak hour and 155 vehicles during the PM peak hour. Thus, Project-related traffic would increase existing volumes by approximately 16% during the AM peak hour and 10% during the PM peak hour. (As the Project does not include any mixed-use or commercial land uses, the Traffic Impact Study conservatively assumed no reductions to the trips generated by ITE rates. Additionally, since there are currently only a very small number of single-family residential units on the site, it was conservatively assumed that no trip reductions would be applied to the new development to account for the displaced trips.) Traffic volumes would need to roughly double to increase noise levels by 3 dBA. Thus, these nominal traffic volume increases (16% during the AM peak hour and 10% during the PM peak hour) near residences with exposure to traffic noise from Baker Road would not result in an increase in traffic that exceeds the Federal Transit Administration criteria of 3 dBA. Therefore, traffic generated by the Project would not have a substantial adverse effect on existing residences due to increased noise from traffic increases.

New residents on the Project site would also be exposed to ambient noise from traffic on area roadways. Noise measurements along the Project site boundary indicated that the proposed residences would be exposed to exterior noise levels of 58 dBA Leq along Baker Road and 60 dBA Leq along Rutledge Road. These noise levels would not exceed the Castro Valley General Plan's exterior noise standard of 70 dBA CNEL for noise-sensitive uses. The manner in which newer development in California is constructed generally provides a reduction of exterior-to-interior noise levels of about 25 to 30 dBA with closed windows (Federal Transit Administration 2006). Therefore, the exterior-to-interior noise level would be no greater than 35 dBA Leq, equivalent to 41 dBA Ldn, and thus would not exceed the interior noise standard of 45 dBA Ldn.

Therefore, the Project would have a less than significant impact from the exposure of people to excessive long-term on-site and traffic noise.

NO: LESS THAN SIGNIFICANT IMPACT

12b. Groundborne Vibration

Project construction activities are anticipated to result in some vibration that may be felt on properties in the vicinity of the Project site, as commonly occurs with construction Projects. **Table 16** identifies vibration velocity levels for different types of construction equipment. Project construction would not involve the use of pile drivers, but could involve the use of bulldozers and jackhammers on the Project site. Additionally, loaded trucks carrying construction materials would operate on the Project site and some surrounding streets during construction.

Table 16. Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB 50 Feet
Large Bulldozer	78
Loaded Trucks	77
Jackhammer	70
Small Bulldozer	48

Source: Federal Transit Administration 2006.

Construction contractors would infrequently operate heavy, vibration-generating equipment near the property lines. However, the greatest concentration of construction and grading activity would typically occur, on average, towards the center of the Project site, primarily at least 50 feet from the nearest residences, rather than being concentrated at the property lines. At a distance of 50 feet, residences would

be exposed to vibration levels of up to 78 VdB, which exceeds the 72 VdB threshold for residences and buildings where people normally sleep, but is below the 100 VdB threshold where vibration causes damage to buildings. Even when heavy equipment operates along the property lines, it would not generate vibration levels exceeding the 100 VdB threshold where vibration causes damages to buildings. The Alameda County Municipal Code, Noise Ordinance (Section 6.60.070.E) prohibits construction before 7:00 AM or after 7:00 PM on any day except Saturday or Sunday, or before 8:00 AM or after 5:00 PM on Saturday or Sunday. Therefore, construction vibration would not be in violation of these limits on construction. However, the Noise Ordinance also provides that the operation of any device that creates a vibration which exceeds the vibration perception threshold of an individual (65 VdB) at or beyond the property boundary of the source would be prohibited on any private property. Therefore, although vibration would be temporary, the Project would result in potentially excessive, significant ground-borne vibration.

Mitigation Measure

Mitigation Measure N-1 would be required to reduce the severity of vibration from Project construction activity at adjacent properties.

N-1. **Best Management Practices to Assure Acceptable Vibration Levels.** The following mitigation shall be implemented by Project construction crews to avoid structural damage due to construction vibration and to reduce the perceptibility of vibration levels at nearby sensitive land uses:

- Minimize or avoid using clam shovel drops, vibratory rollers, and tampers near the shared property lines of the adjacent land uses.
- When vibration-sensitive structures are within 25 feet of the site, survey condition of existing structures, and, when necessary, perform site-specific vibration measurements to direct construction activities. Contractors shall continue to monitor effects of construction activities on surveyed sensitive structures and offer repair or compensation for damage.
- Construction management plans shall include predefined vibration reduction measures, notification of scheduled construction activities requirements for properties adjoining the site, including contact information for on-site coordination and complaints.

Additional conditions of approval may be considered to exclude soil excavation or major grading activities on Sundays before noon. Incorporation of Mitigation Measure N-1 would provide the adjacent residents with assurances that vibration effects would be monitored and minimized to the greatest extent feasible.

NO: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION

12d. Temporary Increase in Noise

Construction would generate temporary noise levels that could be audible to sensitive receptors near the Project site, including residences located to the north, south, and east. Noise impacts are a function of the type of activity being undertaken and the distance to the receptor location. During construction, construction equipment would be active on the site, and construction workers and trucks would drive to and from the site.

Table 17 shows typical noise levels associated with equipment that may be used for the construction of the proposed project nearby sensitive receptors. Noise levels associated with construction activities would temporarily affect the identified sensitive receptors near the Project site. Noise from point sources generally decreases by about 6 dBA per doubling of distance for point source emitters. As noted above,

construction activity would typically be most concentrated in the body of the Project site, approximately 50 feet from the nearest residences, rather than at the property lines. As shown in **Table 17**, the maximum noise level during construction activities at the nearest sensitive receptor would be approximately 89 dBA Leq. Noise measurements taken in the vicinity of the Project site indicate that existing noise levels are approximately 58 dBA Leq at residences along Baker Road and 60 dBA Leq at residences along Rutledge Road. Therefore, construction noise would exceed ambient noise levels in the area and would be expected to cause temporary disturbance to nearby residents. Although construction noise impacts would be temporary and construction contractors would be required to comply with Noise Ordinance requirements restricting hours of construction, construction for all of these activities is anticipated to occur over 15 months, during which time construction noise from the Project is considered to be a potentially significant impact.

Table 17 Typical Construction Noise Levels

Equipment	Typical Level (dBA Leq) at 50 Feet from the Source
Dozer	85
Paver	89
Jackhammer	88
Truck	88
Loader	85

Source: Federal Transit Administration 2006.

Mitigation Measure

Mitigation Measure N-2 would be required to reduce the severity of Project construction activity noise and to be moderated in time and extent and minimized by reasonable, available means.

N-2. **Best Management Practices to Reduce Construction Noise Levels.** The following mitigation shall be implemented to reduce construction noise emanating from the Project site to the surrounding sensitive land uses:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible.
- Erect temporary noise control blanket barriers, if necessary, along building façades facing construction sites. Noise control blanket barriers can be rented and quickly erected.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the Project site.

- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

Mitigation Measure N-2 would reduce construction-period noise levels to a less-than-significant level through implementation of noise-reducing best management practices during construction activities.

NO: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION

12e-f. Airport Noise

The Project is not located within an airport land use plan or two miles of an airport (Alameda County, California Airport Land Use Commissions [ALUC] 2016). The nearest airport to the Project is the Hayward Executive Airport, located approximately 3.1 miles southwest of the Project site. The Project site is not in the vicinity of a private airstrip. The Eden Medical Center – Summit Hospital has a helipad about a half mile from the Project site, but helicopter noise is infrequent and further moderated by a wide range of approach paths. Therefore, airport noise would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

13. POPULATION AND HOUSING Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				x
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			x	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			x	

Impacts

13a. Population Growth

The proposed demolition of two existing structures and construction of 20 townhome units on-site would result in a net increase of 17 dwelling units. Based on the rate of 2.96 persons per household in unincorporated Alameda County in 2016, the project would generate an estimated 53 net new residents, (California Department of Finance 2016). The estimated increase in population as a result of the Project would constitute only 1.7 percent of the projected growth of 3,100 residents by 2025, or approximately 0.09 percent of total projected residential population for that year. Castro Valley had a population of 61,400 residents in 2010, and is projected to grow by about 5 percent (or an additional 3,100 residents) by 2025, for a total population of 64,500 residents (U.S. Census Bureau 2015). The estimated increase in population as a result of the Project would constitute only 1.7 percent of the projected growth of 3,100 residents by 2025, or approximately 0.09 percent of total projected residential population for that year.

An additional 2,442 housing units were/are expected to be added to Castro Valley upon full buildout in 2025 in order to meet the City's housing needs based on Association of Bay Area Government's (ABAG) projected population growth. The 20 townhomes constitute approximately 1 percent of the additional housing units upon 2025 buildout, and would contribute toward meeting the housing needs for the region as projected in Plan Bay Area (2017) and ABAG's population growth Projections. There are no nearby parcels that are vacant or substantially underdeveloped with the same zoning and general plan designations, for which the Project would have the effect of stimulating new development in any noticeable way. Therefore, the Project would not induce substantial population growth relative to anticipated growth in Castro Valley, and no impact would occur.

NO: NO IMPACT

13b, c. Displaced Housing and People

The Project would involve demolition of one residential duplex and one single-family dwelling units. These residences would be vacated and demolished prior to construction of the 20 townhomes. The loss of three existing units would not represent substantial displacement of residents to the extent that the construction of replacement housing elsewhere would be necessary. Furthermore, the Project would replace the demolished residences with 20 townhome units, resulting in a net increase of 17 dwelling units. This increase in development is allowed under the Castro Valley General Plan land use and zoning designations, which support residential development at the proposed density. Therefore, impacts associated with the displacement of existing residents would be less than significant.

NO: LESS THAN SIGNIFICANT IMPACT

14. PUBLIC SERVICES Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Fire protection?			×	
b) Police protection?			×	
c) Schools?			×	
d) Parks?			×	
e) Other public facilities?			×	

14a. Fire Protection

The Alameda County Fire Department (ACFD) provides fire and paramedic service to most of the Castro Valley Planning Area. ACFD Station 25 (20336 San Miguel Avenue) is located approximately (1/4) mile to the northeast of the Project site, and provides service to the site and vicinity (Alameda County Fire Department 2016). The station has one engine company, which also staffs one truck company, a patrol unit, and houses the Battalion 2 and HazMat Support Unit. ACFD's average response time is five minutes for 90 percent of the emergency calls received, and within 10 minutes for 90 percent of the non-emergency calls received (B. Terra, personal communication. January 18, 2017).

The Project would involve the construction of 20 townhomes in an area already served by fire protection resources. The estimated net increase of 53 residents (discussed in Section 13, *Population and Housing*) would not substantially affect Fire Department service ratios or response times, nor would any new fire protection facilities need to be provided. As the site is already served by the ACFD and located in an existing residential and commercial area, the Project would not require an expansion of fire protection facilities, and the impact related to fire protection would be less than significant.

NO: LESS THAN SIGNIFICANT

14b. Police Protection

The Alameda County Sheriff's Office (ACSO) is responsible for police services on all unincorporated lands within the County, including the Project site located in Castro Valley. Castro Valley is patrolled and served by the Eden Township Substation at 15001 Foothill Boulevard in San Leandro. This police station is approximately 2.5 miles northwest of the Project site and provides patrol services for over 150,000 citizens within unincorporated Alameda County (Ashland, Castro Valley, Cherryland, San Lorenzo, Sunol, and Livermore Valley). According to the Castro Valley General Plan (2012), patrol services are provided on a 24-hour basis within the General Plan area and the average response times for the ACSO are 11 minutes and 48 seconds for priority calls requiring an emergency response and 17 minutes and 13 seconds for non-emergency calls requiring an urgent response (Alameda County 2012). The ACSO's staffing level for the Castro Valley area are at 1.4 sworn officers per 1,000 residents, which is lower than the countywide staffing level which is 1.6 officers per 1,000 residents.

The Project would add new residents that would require police protection from the ACSO. The site is located in an existing residential and commercial area. Relative to the service population of more than 150,000 people, the estimated net addition of 53 residents would not affect law enforcement service ratios

or response times, nor would any new facilities need to be provided. Therefore, the impact related to law enforcement protection resources would be less than significant.

NO: LESS THAN SIGNIFICANT

14c. Schools

Given that approximately 15 percent of Castro Valley's population is between the ages of 5 and 18 (U.S. Census Bureau 2015), it is assumed that the same percentage of residents on the Project site would be school-age children who are eligible to attend schools operated by the Castro Valley Unified School District (CVUSD). Thus, the estimated net increase of 53 residents on-site would include about nine school-age children. Most CVUSD schools are currently at or exceeding capacity; however, CVUSD guarantees placement of students who are residents within the district at a CVUSD school, even if placement is not the closest school to the student's place of residency (Paula DeLaRive, Student Services Program Technician, personal communication, January 13, 2017). The Project's contribution to over-crowding at schools in the vicinity would be mitigated by the payment of the statutorily required impact mitigation fee or "developer" fee at rates implemented and applicable to the Project at the time of building permit issuance. Pursuant to Section 65995 (3)(h) of the California Government Code, the payment of statutory fees "...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." Therefore, the Project would have a less than significant impact related to schools.

NO: LESS THAN SIGNIFICANT

14d. Parks

Public parks in the Project vicinity are provided by the Hayward Area Recreation and Park District (HARD) and by the East Bay Regional Park District. Nearby parks include the Castro Valley Community Park (18988 Lake Chabot Road, 1.25 miles from Project site), the Earl Warren Dog Park (4594 Paradise Knolls, 1.5 miles away), the Adobe Art Center (20395 San Miguel Avenue, 0.5 mile away), Carlos Bee Park (1905 Grove Way, Hayward, 1 mile away), and the Cull Canyon Regional Recreation Area (18627 Cull Canyon Road, 2 miles away). The estimated net addition of 53 residents on-site would result in an incremental increase in the demand for existing park facilities but not to the extent that new park facilities to accommodate residential growth would be necessary. Therefore, the Project would have a less than significant impact related to the development of new park facilities. Section 15, *Recreation,* provides additional analysis pertaining to Project impacts on recreational facilities and parks.

NO: LESS THAN SIGNIFICANT

14e. Other Public Facilities

The Alameda County Public Works Agency provides a variety of services and facilities in the unincorporated areas of the County, mainly roadway maintenance, and design and management of flood control projects. The Project would not entail the design and construction of any additional public roadways, flood control measures, or other facilities or services. New residents on-site would be served by the public Castro Valley Library at 3600 Norbridge Avenue, which is approximately 1 mile east of the Project site. Recently built in 2009, the library contains an extensive book and multimedia area with enough space for up to 161,000 materials, 87 computer terminals, 6,435 square feet for children's services, a bookstore operated by the Friends of the Library, a cafe, and a 2,000 square foot community meeting room and multi-purpose education center (Alameda County Library 2016). The estimated net increase of 53 new residents would incrementally increase demand for library resources but not to the extent that new or physically altered library facilities would be required to adequately serve residents of Castro Valley. Therefore, the Project would have less than significant impacts related to libraries and other public facilities.

NO: LESS THAN SIGNIFICANT

15. RECREATION Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			x	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			x	

15a. Existing Recreational Facilities

There are 5,915 acres of park and open space area in Castro Valley, including nearly 5,600 acres of regional parkland and 325 acres of neighborhood and community parks. Based on the acreage of neighborhood and community parks to population, Castro Valley has approximately 5.3 acres of parkland for every 1,000 residents (Alameda County 2012). Most Castro Valley neighborhoods are within a 10-minute walk of a neighborhood or community park. **Table 18** provides a listing of neighborhood and community parks within a two mile radius of the Project site.

Table 18 Neighborhood and Community Parks within 2-Mile Radius of Project Site

Recreational Facility	Distance from Project Site (in miles)	On-Site Facilities and Amenities
Adobe Art Center	0.5	Visual art classes for all age groups, group picnic areas with barbecues, and a play area
Bay Trees Park	2	Tennis courts
Carlos Bee Park	1	Picnic areas with barbecues, and a playground
Castro Valley Community Park	1.25	Group picnic areas with barbecues, play area, tennis courts, ball fields, basketball courts, soccer fields, horseshoe courts, snack bar, meeting rooms, open lawn area, splash pad, the Chanticleer's Little Theater, and Community Center
Cull Canyon Regional Recreation Area	2	Swimming lagoon, fishing, and picnic areas
Earl Warren Dog Park	1.5	Several play areas for dogs, picnic areas and barbecues, and a playground

Source: Adapted from Figure 8-1 Parks and Community Facilities of the Castro Valley General Plan (2012) and Google Earth (2017)

The Alameda County General Code, Section §12.20.120, which includes Castro Valley, requires new residential development to provide for dedication of parkland based on a standard of five acres of parkland per 1,000 residents generated by the project, or 218 square feet per person. Alternatively and more efficiently, developers may pay in lieu fees to the local park district which in the Castro Valley area is provided by the Hayward Area Recreation and Park District (HARD). HARD manages both the regional parkland and many of the local parks throughout Alameda County. Therefore, Castro Valley must also meet the HARD standard threshold requirement of three acres per 1,000 residents (Alameda County 2012).

As stated above, Castro Valley residents benefit from having access to nearly 5,600 acres of regional parkland. When combined with the 325 acres of local parkland for a total of 5,915 acres, this creates a ratio of 9.6 acres of parkland per 1,000 residents. This far exceeds the threshold requirements of both the HARD and the County.

Conservatively estimating by not subtracting the loss of the two on site residences, the net addition of 53 residents represents a miniscule increase to overall population. Therefore, implementation of the Project would not cause a substantial increase in the use of parkland and recreational facilities which would contribute to the deterioration of those facilities or require the expansion or construction of new park facilities elsewhere. Therefore, impacts would be less than significant.

NO: LESS THAN SIGNFICANT IMPACT

15b. New Recreational Facilities

The Project includes four common open space areas that would be available to the public for recreation. These four areas would be separate from the private usable spaces for each unit, and would be located between the buildings and along Rutledge Road. The four areas combine for a total of 2,972 square feet or approximately 150 square feet per unit. These common areas would help reduce the demand and use of other parks and recreational facilities. The impacts related to construction of these facilities are analyzed throughout this Initial Study as a part of the Project as a whole. As discussed above, the Project would not require the construction or expansion of recreational facilities. Impacts would be less than significant.

NO: LESS THAN SIGNFICANT IMPACT

16. TRANSPORTATION Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) 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?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c) 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?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

Impacts

16 a,b. Conflicts with Plan, Ordinance or Policy on Performance of the Circulation System or a Congestion Management Program

The following analysis is based on a Traffic Impact Study for the Project, prepared by Wood Rodgers in February 2017 (see Appendix H).

The Traffic Impact Study analyzed four intersections under "Existing" and "Existing plus Project" AM, mid to late afternoon (MD), and PM peak hour conditions:

1. Castro Valley Boulevard / Wisteria Street
2. Castro Valley Boulevard / Baker Road
3. Castro Valley Boulevard / Anita Avenue
4. Baker Road / Project Access Driveway / Private Roadway

Existing Conditions

Table 19 presents traffic operations analysis under existing conditions. Traffic operations were estimated in terms of "Level of Service" (LOS), a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment. LOS "A" represents free-flow conditions with little to no delays, while LOS "F" represents jammed or grid-lock conditions.

Table 19 "Existing" Conditions Intersection Traffic Operations

#	Intersection	Control Type	LOS Criteria	Peak Hour	Existing Conditions		
					Delay (S/V)[1]	LOS	Wrnt Met?[2]
1	Castro Valley Boulevard / Wisteria Street	Signal	E	AM	11.3	B	-
				PM	15.2	B	-
2	Castro Valley Boulevard / Baker Road	TWSC	E	AM	15.4	C	No
				PM	24.3	C	No
3	Castro Valley Boulevard / Anita Avenue	Signal	E	AM	16.9	B	-
				PM	12.2	B	-
4	Baker Road / Project Access Driveway / Private Roadway3	TWSC	D	AM	8.7	A	No
				PM	8.6	A	No

Notes: 1. For TWSC (Two-Way-Stop-Control) intersections, "worst-case" movement delay is indicated. "Average" control delays (in seconds/vehicle) are indicated for Signal-Control intersections.

2. Wrnt Met? = CA-MUTCD based Peak-hour-Volume Warrant #3 (Urban Areas) for traffic signals at unsignalized intersections

3. Under "Existing Conditions" Intersection 4 consists solely of Baker Road and the Private Roadway that lies approximately where the proposed Project Access Driveway will be constructed.

Source: See Appendix H

As shown in **Table 19**, all of the study intersections are currently operating at acceptable level of service conditions during the AM and PM peak hours. CA-MUTCD based peak hour signal warrant-3 (urban areas) is not projected to be met at either of the unsignalized study intersections.

Significance Thresholds

Signalized Intersections

According to the Castro Valley General Plan, Circulation Chapter, Policy 6.2-1 (Alameda County Community Development Agency, March 2012), the community currently utilizes LOS "E" as the minimum acceptable LOS threshold for intersections that fall on a Congestion Management Program (CMP) Roadway. CMP roadways include Castro Valley Boulevard, Center Street, Grove Way, Crow Canyon Road, and Redwood Road. The community utilizes LOS "D" or better as the acceptable LOS threshold for all non-CMP roadway intersections during peak travel periods.

Based on Policy 6.2-1 in the Castro Valley General Plan (2012) and criteria used by other cities within Alameda County, Project impacts at signalized intersections would be considered significant if one of the following criteria is met:

1. If the addition of Project-generated traffic to an intersection causes the AM, mid to late afternoon, or PM peak hour LOS of the intersection to degrade from an acceptable LOS ("E" or better for Congestion Management Program intersections or "D" or better for non-Congestion Management Program intersections) to an unacceptable LOS; or
2. If an intersection operates at an unacceptable AM, mid to late afternoon, or PM peak hour LOS (LOS "F" for Congestion Management Program intersections or LOS "E" or "F" for non-Congestion Management Program intersections) without the addition of Project generated traffic, and the addition of Project generated traffic increases the average intersection control delay by four (4) seconds or more.

Unsignalized Intersections

The Castro Valley General Plan does not establish a significance criterion for unsignalized intersections, nor has the County adopted such a criterion. The traffic impact study determined that significant impacts would occur if the addition of Project-generated traffic caused the average intersection delays to degrade operations to unacceptable levels (for the purpose of this analysis, to LOS "E" or a greater than five second average increase in delay) and caused the intersection to warrant a signal.

Signal Warrants

To determine whether traffic signals should be installed at currently unsignalized intersections, Wood Rodgers conducted a supplemental traffic signal warrant analysis based on the California Manual on Uniform Traffic Control Devices (CA-MUTCD) from November 2014. The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify the need for installation of a traffic signal at an unsignalized intersection. The CA-MUTCD signal warrant criteria are based upon several factors including volume of vehicular and pedestrian traffic, location of school areas, and frequency and type of collisions. CA-MUTCD indicates that "the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal."

Existing Plus Project Conditions

New vehicle trips generated by the Project were estimated using rates from the *Institute of Transportation Engineers Trip Generation Manual*, 9th Edition. Project trips were based on existing traffic volumes, observed travel patterns, daily travel pattern information contained in the Castro Valley General Plan, and routes to major freeways within the vicinity of the Project site. As the Project does not propose any mixed-use or commercial land uses, the TIS conservatively assumed no reductions to the trips generated by ITE rates. Additionally, since there were only a small number of single family residential units on the site currently, it was conservatively assumed that no trip reductions would be applied to the new development to account for the displaced trips. **Table 20** shows that the Project is expected to generate a total of 159 daily trips, 14 AM peak hour trips, and 16 PM peak hour trips under typical "annual average" traffic demand conditions.

Table 20. Project Trip Generation Volumes

				Weekday AM Peak Hour Trips[1]			Weekday PM Peak Hour Trips		
Land Use	**Units**	**Quantity**	**Daily Trips**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Residential Condominium/Townhouse	DU[2]	20	159	14	2	12	16	11	5

Notes: [1]The trips illustrated in this table are based on ITE Trip Generation (9th Edition) calculated trip rates, using the fitted curve equations.

[2] *DU = Dwelling Unit*

Table 21 shows projected intersection operations under "Existing plus Project" traffic conditions and the projected change in delay of critical movements from Project-generated trips.

As shown in **Table 21**, all of the study intersections are currently operating at acceptable level of service conditions during the AM and PM peak hours. Peak hour signal warrants are not projected to be met at any of the unsignalized study intersections. Therefore, under Existing Plus Project conditions, the Project would not result in significant impacts pursuant to County threshold criteria; the Project would have a less than significant impact on the performance of the circulation system.

Further, to complete the soil remediation activities described in the *Remedial Action Plan* (summarized in Section 8, Hazards and Hazardous Materials), approximately 420 total truck trips, or 28 truck trips per

day, would occur to and from the Project site over the course of a two- to three-week period. Because soil remediation import and export would occur over two to four-weeks, there would be no long-term impacts on area traffic. Therefore, implementation of the Remedial Action Plan would not result in new or substantially increased transportation impacts, and no additional mitigation measures are required.

NO: LESS THAN SIGNIFICANT IMPACT

Table 21. "Existing plus Project" Conditions Intersection Traffic Operations

					Existing Conditions			Existing Plus Project Conditions			
#	Intersection	Control Type	LOS Criteria	Peak Hour	Delay (S/V)[1]	LOS	Wrnt Met?[2]	Delay (S/V)[1]	LOS	Wrnt Met?[2]	Change/ Delay
1	Castro Valley Blvd / Wisteria St	Signal	E	AM	11.3	B	-	11.3	B	-	0.0
				PM	15.2	B	-	15.2	B	-	0.0
2	Castro Valley Blvd / Baker Rd	TWSC	E	AM	15.4	C	NO	16.1	C	NO	0.7
				PM	24.3	C	NO	29.7	D	NO	5.4
3	Castro Valley Blvd/ Anita Ave	Signal	E	AM	16.9	B	-	16.9	B	-	0.0
				PM	12.2	B	-	12.2	B	-	0.0
4	Baker Rd / Project Access Driveway / Private Roadway[3]	TWSC	D	AM	8.7	A	NO	9.6	A	NO	0.9
				PM	8.6	A	NO	10.6	B	NO	2.0

Notes:

1. For TWSC (Two-Way-Stop-Control) intersections, "worst-case" movement delay is indicated. "Average" control delays (in seconds/vehicle, i.e., S/V) are indicated for Signal-Control intersections.

2. Wrnt Met? = CA-MUTCD based Peak-hour-Volume Warrant #3 (Urban Areas)

3. Under "Existing Conditions" Intersection 4 consists solely of Baker Road and the Private Roadway that lies approximately across from where the proposed Project Access Driveway will be constructed.

Source: Wood Rodgers TIA, February 2017

16c. Air Traffic Patterns

The nearest airport to the Project site is the Hayward Executive Airport, located approximately 3.3 miles to the southwest. No private airports or air strips are located in the vicinity of the site. Given the the very slight increase in relative population in Castro Valley represented by the development (see Section 13a., Population Growth, above), the Project would not result in a change to air traffic patterns and no impact would occur.

NO: NO IMPACT

16d. Hazards Due to a Design Feature

The proposed driveway providing access from Baker Road to the Project site would not result in traffic hazards. As detailed in the traffic impact study (Appendix H), the proposed driveway would intersect Baker Road at a new full-access driveway intersection, located generally in the middle of the Project site frontage. Access would be a single lane in, single lane out, and would stop-sign controlled for egress, with Baker Road traffic having the right-of-way and no stop sign. Since the proposed Project driveway would intersect Baker Road at a 90-degree angle, sufficient sight distance would be available to maintain intersection visibility for vehicles exiting and/or entering the Project site. Since there is only one proposed internal roadway, the proposed Project driveway at Baker Road could theoretically accommodate eastbound vehicular queueing up to the entire length of the Project site (approximately 275 feet or 11

vehicles), although such queuing would obstruct access to on-site parking. Including only the portion of the proposed Project driveway that does not serve garages and guest parking stalls, the driveway would have a worst-case "Existing plus Project" peak hour egress (eastbound) queue of approximately 50 feet (or two vehicles), which is projected to be adequate.

NO: NO IMPACT

16e. Emergency Access

The Project is subject to Alameda County Fire Department review of the site plans, site construction, and the actual structures prior to occupancy, ensuring that required fire protection safety features, including building sprinklers and emergency access, are implemented. This review has verified that the proposed site ingress and egress is adequate for fire safety and police protection. Furthermore, the proposed infill development would not hinder emergency access or evacuation on area roadways. Therefore, impacts would be less than significant.

Emergency vehicles (ambulances or small fire trucks) could use the hammer-head on the western side of the site to turn around or make a U-turn. Traffic volumes on the proposed internal Project site roadway are not projected to be large enough to require other traffic control improvements. No other internal street improvements are recommended.

NO: LESS THAN SIGNIFICANT IMPACT

16f. Conflicts with Policies, Plans, or Programs for Public Transit, Bicycle, or Pedestrian Facilities

Public Transit

Residents of the proposed townhomes would be within walking and bicycling distance of bus stops for AC Transit Route 32, all of which are located along Castro Valley Boulevard within 1,000 feet of the Project site. The Castro Valley Bay Area Rapid Transit (BART) station is located within 0.6-mile of the Project site, on Northbridge Drive. The Dublin-Pleasanton BART line provides direct service to Oakland, San Francisco, and the San Francisco International Airport. In addition, the increase in transit ridership caused by the estimated net increase of residents would not substantially affect transit route delay or operations. Impacts related to public transit would be less than significant.

Bicycle

Project site residents could access the Castro Valley Transit Bus Route 32 bus stops located on Castro Valley Boulevard and/or the Castro Valley BART station via bicycle using the existing class II bike lanes on Castro Valley Boulevard and/or the low-volume nearby local residential streets in the Project study area. According to the Castro Valley General Plan, Class II bike lanes are proposed to be constructed on Castro Valley Boulevard between Redwood Road and Crow Canyon Road (filling in the current gap). These Class II bike lanes, once constructed, could be utilized by future Project residents for improved bicycle access to nearby destinations and transit stops. Therefore, the Project would not conflict with policies related to bicycle facilities.

Pedestrian

Castro Valley Boulevard, Wisteria Street, and Baker Road all have continuous pedestrian sidewalks on both sides of the road within the Project study area. Anita Avenue has pedestrian sidewalks for most of its length within the Project study area, however some sporadic segments have only asphalt sidewalks, or no sidewalks. The Castro Valley Boulevard intersections at Wisteria Street and Anita Avenue have signalized crosswalks with pedestrian push buttons on the north and east legs, and the north and west legs, respectively, while the two-way-stop-controlled Castro Valley Boulevard / Baker Road intersection has a pedestrian crosswalk on the south leg only.

Project residents could access the Castro Valley Transit Bus Route 32 bus stops located on Castro Valley Boulevard on foot via the continuous existing sidewalks provided on Baker Road and Castro Valley Boulevard, as well as the pedestrian crosswalks with push buttons located at the Castro Valley Boulevard intersections with Wisteria Street and Anita Avenue. These same pedestrian facilities, as well as the sidewalks provided on neighboring local residential streets could also be used to reach the Castro Valley BART station. A large shopping center, including a Safeway, located approximately half a mile northeast of the Project could be accessed by residents on foot as well. Therefore, the Project would have no adverse impact related to pedestrian facilities and would not conflict with adopted policies, plans, or programs related to non-motor-vehicle modes of transportation.

NO: LESS THAN SIGNIFICANT IMPACT

17. TRIBAL CULTURAL RESOURCES Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) or		x		
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		x		

Setting

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A Project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a Project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding tribal cultural resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed Project." Native American tribes to be included in the process are those that have requested notice of Projects proposed within the jurisdiction of the lead agency.

Impacts

17a, b. Tribal Cultural Resources

Alameda County prepared and mailed formal notification letters in accordance with the provisions of AB 52 to six Native American tribes on January 18, 2017. Alameda County received no responses from the six tribes within the 30 day response period required under AB 52. Therefore, Alameda County terminated consultation under AB 52 having met the necessary requirements for tribal notification. Although not anticipated, the possibility exists for tribal cultural resources discovered during construction, which would be potentially significant.

Mitigation Measure

Mitigation Measure TCR-1 would be required to protect tribal cultural resources in the event of their discovery during construction.

TCR-1 **Unanticipated Discovery of Tribal Cultural Resources**. In the event that cultural resources of Native American origin are identified during construction, Alameda County shall consult with a qualified archaeologist and begin or continue Native American consultation procedures. If Alameda County determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.

Impacts would be less than significant with mitigation incorporated.

NO: LESS THAN SIGNIFICANT WITH MITIGATION

18. UTILITIES AND SERVICE SYSTEMS Would the Project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			×	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			×	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			×	
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?			×	
e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?			×	
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?			×	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			×	

Impacts

18a, b, e. Regional Wastewater Treatment Standards and Waste and Wastewater Treatment Facilities

The San Francisco Bay Regional Water Quality Control Board (RWQCB) establishes standards for the generation of wastewater to and from wastewater treatment facilities, and regulates the discharge of industrial pollutants into treatment facilities. The RWQCB requires such facilities to meet specific standards for water discharged into San Francisco Bay and the Pacific Ocean.

The Project area is serviced by the Castro Valley Sanitary District (CVSan) which provides and maintains the sewage collection system that serves most of Castro Valley. The Oro Loma Sanitary District treats CVSan sewage at the Oro Loma/Castro Valley Water Pollution Control Plant in San Lorenzo. The Oro Loma/Castro Valley Plant operates under a NPDES permit issued by the San Francisco RWQCB and discharges to San Francisco Bay through pipelines operated by the East Bay Dischargers Authority (EBDA) (Alameda County 2012). This plant treats approximately 15 million gallons per day (mgd) of wastewater, with a total capacity of 20 mgd under this NPDES permit (Alameda County 2015).

The proposed increase in residential density on-site would result in greater wastewater generation. Based on wastewater generation and capacity figures for the Oro Loma/Castro Valley Treatment Plant from the Ashland and Cherryland Business District Specific Plan (2015), a net increase of 17 residential units and 53 residents would generate an estimated 4,367 gallons of wastewater per day, as shown in **Table 22**.

Table 22. Projected Wastewater Generation

Land Use	Net Population Increase	Generation Factor	Flow
Townhomes	53 residents	82.4 gpd[1]/resident	4,367 gpd

Source: Adapted from Alameda County, Ashland and Cherryland Business District Specific Plan (2015).
[1]*gpd = gallons per day*

The estimated 4,367 gallons per day of wastewater generated by the Project would amount to approximately 0.03 percent of total daily wastewater generation and 0.09 percent of total additional capacity. This nominal increase in sewage flow would not exceed the existing permitted capacity allowed for the Castro Valley Sanitary District under their current NPDES permit, and would not exceed treatment capacities under San Francisco RWQCB. The wastewater would be conveyed into an existing sewer main in Baker Road which CVSan has indicated would not exceed the capacity of the Oro Loma/Castro Valley Treatment Plant (Personal Communication Jimmy Dang, August 2017). From the site, the waste would flow south and west to the Treatment Plant. Therefore, the impact of the Project related to wastewater treatment facilities and standards would be less than significant.

NO: LESS THAN SIGNIFICANT

18c. Stormwater Drainage Facilities

The Alameda County Flood Control and Water Conservation District (ACFCD) provides stormwater collection and conveyance services to the County, and owns and manages most storm drains in Castro Valley. The Project site is located in ACFCD's Flood Control Zone 2, which contains 55 miles of natural creek, four miles of earth channels, 11 miles of concrete channels, 49 miles of underground pipes, two miles of improved creeks, and two pump stations (Alameda County 2012). Stormwater flows from Lake Chabot and Castro Valley Creek to storm drains, channels, and pipelines leading to San Lorenzo Creek and to the San Francisco Bay. The drainage conductor on Baker Road is part of the roadway, and is not a District facility. As discussed in Section 9, *Hydrology and water Quality,* all stomwater runoff would be conveyed to the bio-retention basins bordering the Baker Road frontage.

As discussed in Section 9, *Hydrology and Water Quality*, the Project would be required to include site drainage systems according to standards and provisions set forth by the County. Therefore, the Project would not generate substantial additional runoff that exceeds the capacity of existing stormwater drainage network and would not result in the need for construction of new facilities. The impact related to storm-water drainage facilities would be less than significant.

NO: LESS THAN SIGNIFICANT

18d. Water Supply

The Project site is located within the service area of the East Bay Municipal Utilities District (EBMUD), which provides water service to approximately 1.4 million customers throughout Alameda and Contra Costa counties. EBMUD's customers have decreased water usage by 20 percent since 2006 due to extreme drought conditions throughout the State (Taylor 2016). Efforts to curtail water use through programs supported by EBMUD, the implementation of a temporary drought surcharge (enforced in 2015), and change in consumer behaviors were largely responsible for the decrease in water use, and similar water reduction measures are expected to remain in place as outlined in EBMUD's 2015 Urban Water Management Plan (UWMP) in order to better manage water demands and reduce risks during drought and emergency conditions (EBMUD 2016). Although current weather conditions (2015-2016 and 2016-2017 winter storm seasons) have been wetter and unlike the prior drought years, climate change and

other weather patterns indicate the region is likely to encounter drought years again in the near future and remain subject to water use limitations.

Annual water demand was approximately 232 mgd for the EBMUD service area in 2015, for an average consumption rate of 165 gallons per day per person (EBMUD 2016). In the years 2030 and 2040, annual water demand is expected to increase to 290 mgd and 312 mgd, respectively. EBMUD is projecting population growth within its service area to reach 1.7 million in 2040 (EBMUD 2016). Based on EBMUD's assessment of climate change impacts to service and operations, water demand is estimated to increase by 10 mgd if average temperature in the service area increases by 4°C. In order to meet projected needs, EBMUD has set ambitious goals for recycled water programs to deliver up to 20 mgd and various conservation projects to achieve water savings up to 62 mgd by 2040.

Based on EBMUD's average consumption rate of 165 gallons per day per person in 2015, an increase of 53 new residents to the Project site would add approximately 8,745 gallons per day in water consumption, which is approximately 0.004 percent of total daily water consumption within the service area (i.e., 232 mgd as of 2015). In the event of multiple dry years, EBMUD's rationing would further decrease residential water consumption from the Project site (Table 4-5, *Preliminary EBMUD Baseline Supply and Demand Analysis* for multi-year droughts in the 2015 UWMP), based on its reduction goal of 6 percent of annual water supply for a single dry year or first year of a multi-year drought scenario and subsequent 20 percent reduction in annual water supply for additional dry years (EBMUD 2016). Therefore, the Project would not substantially increase water demand and sufficient water supplies would be available to serve the Project. Impacts related to water supplies would be less than significant.

NO: LESS THAN SIGNIFICANT

18f, g. Solid Waste

The Castro Valley Sanitary District (CVSan) provides solid waste direct collection services for the Project area. Solid waste collected in Alameda County is disposed of at two active landfills: the Altamont Landfill Resource Recovery Facility and the Vasco Road Sanitary Landfill (Alameda County Waste Management Authority 2015). Altamont currently receives municipal solid wastes from twelve Alameda County jurisdictions, including Castro Valley and the Project site. As of January 2013, the Altamont Landfill had 40 million tons of municipal solid waste capacity out of the total 87 million permitted. This represents approximately 34 years of remaining capacity at the current rate of fill, minus San Francisco waste as of 2015, with an expected closure date of 2049.

The estimated net increase of 53 residents on-site would generate approximately 35 additional tons of solid waste per year, based on CVSan's average annual residential solid waste disposal rate of 0.66 tons per capita. This additional solid waste would represent a miniscule fraction of the total capacity of Altamont Landfill's permitted capacity of 1.6 million tons per year. Furthermore, the Project would divert the majority of its solid waste in compliance with the Alameda County Waste Management Authority's Mandatory Recycling Ordinance of 2012, whereby multi-family properties with five or more units must sort recyclables from trash. Multi-family properties also must sort compostables from trash. CVSan transfers all recyclable, compostable, organics, and construction & demolition debris to Davis Street Transfer Station (DSTS). In 2014, DSTS had a diversion rate of 76 percent (Alameda County Waste Management Authority 2015). Therefore, the Project would have a less than significant impact related to solid waste.

NO: LESS THAN SIGNIFICANT IMPACT

19. MANDATORY FINDINGS OF SIGNIFICANCE	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		x		
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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.)			x	
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		x		

19a. Environmental Quality

As discussed in Section 4, *Biological Resources*, construction of the Project could adversely affect nesting birds. However, implementation of mitigation measures BIO-1 would reduce this impact on wildlife species to less than significant by avoiding initial site disturbance activities, including vegetation removal and structure demolition during the general avian nesting season. The Project would have no other adverse effects on the quality of the environment, habitat of fish and wildlife species, fish or wildlife populations, plant or animal communities, or rare or endangered plants or animals. As discussed in Section 5, *Cultural Resources*, the project site is not considered a historical resource and demolition of the buildings as proposed by the Project would not result in a substantial adverse change in the significance of a historical resource. The Project would have a significant environmental impact if it were to cause a substantial adverse change in the significance of archeological resources. Implementation of mitigation measure CR-1 would protect potentially significant archeological resources in the event cultural deposits are found during any phase of the Project, reducing impacts of archaeological resources to a less than significant level. Therefore, since the Project requires mitigation, impacts would be less than significant with mitigation incorporated.

NO: LESS THAN SIGNFICANT WITH MITIGATION

19b. Cumulative Impacts

As discussed in Section 3, *Air Quality*, the Project would be required to comply with BAAQMD measures through standard permitting requirements and would not result in construction emissions exceeding BAAQMD maximum daily thresholds. Impacts would be less than significant. Per Section 16, *Transportation*, projected intersection operations under "Existing plus Project" traffic conditions and the project change in delay of critical movements would not substantially contribute to existing exceedances of criteria for traffic congestion.

As described in the discussion of environmental checklist Sections 1 through 18, the Project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. The Project would be consistent with the current General Plan land use designation for the site as well as the land use pattern in the Project site vicinity. There are no other planned or

pending projects within the immediate vicinity of the Project site that would create cumulative impacts. Therefore, the Project would have less than significant cumulative impacts.

NO: LESS THAN SIGNFICANT IMPACT

19c. Substantial Adverse Effects

As discussed in Section 3, *Air Quality*, all impacts would be less than significant, and would not pose a threat to human health and would not put humans at risk due to air pollutants emitted by the project. As discussed in Section 7, *Geology and Soils,* the soils underneath the project have the potential to be relatively unstable and unsuitable for development. Mitigation Measure GEO-1 would reduce the potential impact of unstable existing fill to a less than significant level, and GEO-2 would reduce the potential impact of expansive soils to a less than significant level. As discussed in Section 8, *Hazards and Hazardous Materials*, Mitigation Measure HAZ-1, would be required to adequately access the extent of soil contamination on the Project site and safely dispose of contaminated soil at an off-site location. As discussed in Section 9, *Hydrology* and *Water Quality*, the project is in a Special Flood Hazard Area. Mitigation Measure FLOOD-1would require the applicant to submit construction plans that demonstrate compliance with the County Code Section 15.40.130 *Floodplain Management*, to ensure the project conforms to the County Code in the event a LOMR is not issued by FEMA. As discussed in Section 12, *Noise*, the project has the potential to generate construction noise and vibration that would disturb adjacent receptors. Mitigation measures N-1 and N-2 are designed to reduce construction noise and vibration, and reduce construction-related noise impacts to a less than significant level. Therefore, although the Project may have potential for adverse effects on human health and safety, impacts would be less than significant with mitigation incorporated.

NO: LESS THAN SIGNIFICANT WITH MITIGATION

E. SOURCES

Adams, Jeff. PhD, P.E., Principal, ENGEO. Personal communication by email on August 29, 2017.

Alameda, County of. 1993. Castro Valley Central Business District Specific Plan. January 1993. Available at: https://www.acgov.org/cda/planning/generalplans/documents/CAstroValleyBDSPcombined.pdf. Accessed January 2017.

____. 1994. Noise Element of the Alameda County General Plan. http://acgov.org/cda/planning/generalplans/documents/Noise_Element_1994.pdf

____.Alameda County. 2014. Community Climate Action Plan (CCAP). February 4, 2014. http://www.acgov.org/cda/planning/generalplans/documents/110603_Alameda_CCAP_Final.pdf

_____. 2015. Ashland Cherryland Business District Specific Plan. December 2015. Available at: http://www.acgov.org/cda/planning/generalplans/documents/LWC_ACBD_Adopted_SP-Code_Dec2015.pdf

____. 2016a. *C.3 Stormwater Technical Guidance.* Oakland, CA. May 2, 2016. http://www.cleanwaterprogram.org/uploads/C.3_Tech_Guidance_v5.1_FINAL_May_2016_hi_res.pdf.

____. 2016b. Alameda, County of. 2016. "Code of Ordinances." Alameda County. Last modified: December 28, 2016. https://www.municode.com/library/ca/alameda_county/codes/code_of_ordinances?nodeId=16425. (Accessed January 2017).

Alameda County, Community Development Agency. 2007. Castro Valley General Plan, Draft Environmental Impact Report. https://www.acgov.org/cda/planning/generalplans/documents/CV_Draft_EIR.pdf

_____. 2012. Castro Valley General Plan. https://www.acgov.org/cda/planning/generalplans/documents/CastroValleyGeneralPlan_2012_FINAL.pdf. Accessed January 2017.

_____. 2014. Residential Design Standards and Guidelines for the Unincorporated Communities of West Alameda County. Available at: https://www.acgov.org/cda/planning/design.htm. Accessed January 2017.

Alameda County Fire Department. 2016. Alameda County Fire Department: Fire Stations / Facilities. https://www.acgov.org/fire/about/stations.htm. Accessed March 2017.

Alameda County Flood Control and Water Conservation District. 2017. "San Lorenzo Creek Watershed." Alameda County Flood Control and Water Conservation District. http://www.acfloodcontrol.org/resources/explore-watersheds/san-lorenzo-creek-watershed/. (Accessed January 2017).

Alameda County Library. 2016. Alameda County Library: Castro Valley Library. http://www.aclibrary.org/castro_valley. Accessed January 2017.

Alameda County Public Works Agency (PWA). 2017. Stormwater Requirements Checklist for the Baker Road project located at 20957 and20785 Baker Road, Castro Valley, CA 94546. January 25, 2017.

Alameda County Waste Management Authority. (2015, March). Countywide Inegrated Waste Managment Plan. Retrieved January 2017, from StopWaste.org: http://www.stopwaste.org/resource/reports/countywide-integrated-waste-management-plan-coiwmp

Association of Bay Area Governments (ABAG). 2013. Plan Bay Area: Strategy for a Sustainable Region. http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed January 2017.

ABAG and Metropolitan Transportation Commission (MTC). 2017. Plan Bay Area 2040. Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017 – 2040. http://www.planbayarea.org/ (accessed August 2017).

Bay Area Air Quality Management District (BAAQMD). 2010. Bay Area 2010 Clean Air Plan. San Francisco, CA. Adopted September 15, 2010. http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2010-clean-air-plan/cap-volume-i-appendices.pdf. (accessed February 2017).

_____. 2011. California Environmental Quality Act Air Quality Guidelines. Updated May 2011. http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines%20May%202011.ashx?la=en. (accessed February 2017).

_____. 2012. Updated CEQA Guidelines. May 2012. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/baaqmd-ceqa-guidelines_final_may-2012.pdf?la=en. (accessed February 2017).

_____. 2014. Air Quality Standards and Attainment Status. August 20, 2014. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status (accessed February 2017).

Bay Area Transit. 2016. Transit Routes, Transit Information, Castro Valley Station. http://www.actransit.org/wp-content/uploads/HSP_CAST-routes.pdf.

California Air Pollution Control Officers Association (CAPCOA). 2008. CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA). January 2008.

_____. 2010. Quantifying Greenhouse Gas Mitigation Measures. August 2010.

_____. 2016. CalEEMod User's Guide 2016. http://www.aqmd.gov/caleemod/user's-guide. (accessed January 2017).

California Air Resources Board (ARB). 2008. New Idling Limits for Owners, Operators, Renters, or Lessees of In-Use Off-Road Diesel Vehicles. https://www.arb.ca.gov/msprog/ordiesel/guidance/idling.pdf. (accessed February 2017).

California Climate Action Registry (CCAR). California Climate Action Registry General Reporting Protocol, Version 3.1. January 2009.

California Department of Conservation. 2014. California Important Farmland Finder, Interactive Map. http://maps.conservation.ca.gov/ciff/ciff.html. Accessed December 2016.

California Department of Conservation. Guidelines for Classification and Designation of Mineral Lands. 2010. http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf

California Department of Finance. 2016. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2011-2016, with 2010 Benchmark. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed January 2017.

California Department of Toxic Substances Control (CADTSC). 2007. EnviroStor: Hazardous Waste and Substances Site List. http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. (accessed December 2016).

California Department of Water Resources. 2017. California's Groundwater Bulletin 118. Castro Valley Groundwater Basin. Available at: http://www.water.ca.gov/groundwater/bulletin118/basindescriptions/2-08.pdf

California Energy Commission (CEC). 2006. Refining Estimates of Water-Related Energy Use in California. Prepared by Navigant Consulting, Inc. December 2006.

California Department of Fish and Wildlife (CDFW). 2017. California Natural Diversity Database (CNDDB) - Rarefind 5. Available at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed on February 27, 2017.

_____. 2009. Environmental Health and Equity Impacts from Climate Change and Mitigation Policies in California: A Review of the Literature. March 2009.

California EPA (CalEPA). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. https://www.arb.ca.gov/ch/handbook.pdf. (accessed February 2017).

California Environmental Protection Agency (CalEPA), March 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

CalFire. Wildfire Hazard and Building Codes. Alameda County FHSZ Map. 2008. Accessible at : http://www.fire.ca.gov/fire_prevention/fhsz_maps_alameda

California Geological Survey (CGS). 2002. *California Geomorphic Provinces. California Geological Survey Note 36*. Sacramento, CA. California Department of Conservation.

California Native Plant Society (CNPS). Rare Plant Program. 2017. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available at: http://www.rareplants.cnps.org. Accessed on February 27, 2017.

California Regional Water Quality Control Board. 2015. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit. Order No. R2-2015-0049 / NPDES Permit No. CAS612008. http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf. Accessed January 2017.

CalRecylce. CALGreen Construction Waste Management Requirements Summary. September 7, 2016. http://www.calrecycle.ca.gov/LGCentral/Library/CandDModel/Instruction/CALGreenTbl.pdf.

California State Supreme Court, December 17, 2015, California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, Case No. S213478. http://caselaw.findlaw.com/ca-supreme-court/1721100.html.

Caltrans. 2016. List of Eligible and Officially Designated State Scenic Highways. http://www.dot.ca.gov/design/lap/livability/scenic-highways/index.html. Accessed January 2017.

CGS and USGS. 2008. Earthquake Shaking Potential for California, Map Sheet 48. http://www.conservation.ca.gov/cgs/information/publications/ms/documents/ms48_revised.pdf. (accessed December 2016).

DeLaRive, Paula, Castro Valley Unified School District. Personal communication. January 13, 2017.

Dang, Jimmy, Oro Loma Sanitary District. Personal Communication. August 22, 2017

East Bay Municipal Utility District (EBMUD). 2017. "Service Area." East Bay Municipal Utility District. http://www.ebmud.com/about-us/who-we-are/service-area/. (Accessed February 2017).

____. 2016. Urban Water Management Plan 2015. http://www.ebmud.com/water-and-drought/about-your-water/water-supply/urban-water-management-plan/.

ENGEO. 2017. 20785 and 20957 Baker Road, Castro Valley California: Geotechnical Exploration. Prepared for Prepared for Catalyst Development Partners. 22 March.

Federal Emergency Management Agency (FEMA). 2009. *Flood Insurance Rate Map (FIRM) Alameda County, California, Map number 06001C0279G*. [map]. Tabular digital data and vector digital data. Washington, D.C. Department of Homeland Security. http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=79124157&IFIT=1. (Accessed February 2017).

Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment. May 2006.

Hayward, City of. Executive Airport Land Use Compatibility Plan –. Revised 2012. Accessible at: http://www.acgov.org/cda/planning/generalplans/documents/HWD_Ch4_Hayward_Executive_Airport_and_Vicinity_Data.pdf

IDcide – Local Information Data Server. 2017. "Castro Valley, CA Weather." http://www.idcide.com/weather/ca/castro-valley.htm. (Accessed January 2017).

Intergovernmental Panel on Climate Change [IPCC], 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Metropolitan Transportation Commission (MTC) Transportation 2035. Adopted 2009. http://mtc.ca.gov/our-work/plans-projects/plan-bay-area-2040/transportation-2035. (accessed February 2017).

Metropolitan Transportation Commission (MTC). 2013. Plan Bay Area 2013. http://planbayarea.org/the-plan/Document-Archive-2013-PBA.html. (accessed January 2017).

Oakland International Airport Land Use Compatibility Plan. 2010. Accessible at: http://www.acgov.org/cda/planning/generalplans/documents/OAKCh4_Oakland_International_Airport_and_Vicinity_Data.pdf

Preservation Architecture. 2017. *20785 Baker Road, Castro Valley Historic Resources Evaluation*. 17 January.

Rincon Consultants. 2017a. *Cultural Resources Study for the Castro Valley Baker Road Townhomes Project*. Prepared for Catalyst Development Partners. March.

Rincon Consultants. 2017b. Memorandum to Todd A. Deutscher, Catalyst Development Partners Regarding Paleontological Resources Assessment for the Castro Valley Baker Road Townhomes Project, Alameda County California. 24 March.

San Francisco Bay Regional Water Quality Control Board. 2015. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit. Order No. R2-2015-0049 / NPDES Permit No. CAS612008. November 2015. Available at: http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf. Accessed January 2017.

San Francisco Regional Water Quality Control Board. 2016. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, SF-RWQCB Groundwater Committee.

South Coast Air Quality Management District (SCAQMD). 1993. CEQA Air Quality Handbook. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). (accessed February 2017).

Southern California Air Quality Management District (SCAQMD). 1993. Figure 5-5, Land Uses Associated with Odor Complaints, in SCAQMD CEQA Air Quality Handbook.

State Water Resources Control Board (SWRCB). "Impaired Water Bodies." State of California. Last modified: December 23, 2011. http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (Accessed February 2017).

Stinson, Melcin C, Manson et al. Mineral Land Classification : Aggregate Materials in the San Francisco-Monterey Bay Area. Published 1986. Accessible at: https://archive.org/details/minerallandclass00stin

Stop Waste. 2017. www.stopwaste.org. Accessed January 2017.

Taylor, Tracey. "EBMUD suspends drought restrictions as East Bay exceeds water conservation goals." Published May 24, 2016. http://www.berkeleyside.com/2016/05/24/ebmud-suspends-drought-restrictions-as-east-bay-exceeds-water-conservation-goals/. Accessed January 2017.

Terra, Bonnie, Alameda County Fire Department. Personal communication. January 18, 2017.

U.S. Census Bureau. 2015. Available at: http://www.census.gov/quickfacts. Accessed January 2017.

United States Environmental Protection Agency (U.S. EPA). 2017. Criteria Pollutants. https://www.epa.gov/criteria-air-pollutants. (accessed February 2017).

____. 2009. Frequently Asked Questions about Global Warming and Climate Change: Back to Basics. April 2009. https://www3.epa.gov/climatechange/Downloads/ghgemissions/Climate_Basics.pdf

U.S. Census Bureau. 2015. Available at: http://www.census.gov/quickfacts. (accessed January 2017).

U.S. Fish and Wildlife Service (USFWS). 2017a. Information for Planning and. Available at: https://ecos.fws.gov/ipac/. Accessed on February 27, 2017.

____. 2017b. National Wetlands Inventory. Version 2. Available at: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed on February 27, 2017.

U.S. Geological Survey (USGS). 2017. National Hydrography Dataset. Last modified on 29 September 2016. Available at: https://viewer.nationalmap.gov/viewer/nhd.html?p=nhd. Accessed on February 27, 2017.

F. MITIGATION MEASURES TO BE INCLUDED IN THE PROJECT AND AGREED TO BY THE PROJECT SPONSOR AND ALL SUBSEQUENT PROPERTY OWNERS AND PERMITTEES

The following mitigation measures are required to reduce potentially significant impacts of the proposed Project to a "Less Than Significant" or "No Impact" level. These mitigation measures shall be made conditions of approval for the Project. For every mitigation measure, the Permittee will be responsible for implementation actions, schedule, funding and compliance with performance standards, unless otherwise stated in the measure.

BIO-1 **Nesting Bird Surveys and Avoidance.** Initial site disturbance activities, including vegetation removal and structure demolition, shall be prohibited during the general avian nesting season (February 1 – August 30), if feasible. If nesting season avoidance is not feasible, the applicant shall retain a qualified biologist to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the Project site. The extent of the survey buffer area surrounding the site shall be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and CFGC, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation clearance and structure demolition. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed within the buffer areas until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No ground disturbing activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Nesting bird surveys are not required for construction activities occurring between August 30 and February 1.

CR-1 **Unanticipated Discovery of Cultural Resources.** If unanticipated cultural deposits are encountered during any phase of Project construction or land modification activities, work shall stop within 50 feet of the discovery, the County shall be notified, and a professional archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology shall be retained to assess the nature, extent, and potential significance of the discovery. If the resources are determined to be Native American in origin, the applicant shall consult with the County to begin Native American consultation procedures, as appropriate. If the discovery is determined to be not significant, work will be permitted to continue in the area.

Potentially significant resources may require a Phase II subsurface testing program to determine the resource boundaries within the Project site, assess the integrity of the resource, and evaluate the site's significance through a study of its features and artifacts. If, in consultation with the County, a discovery is determined to be significant, a mitigation plan shall be prepared and implemented in accordance with state guidelines. If impacts to the resource cannot be avoided, a data recovery plan shall be developed to ensure collection of sufficient information to address archaeological and historical research questions, with results presented in a technical report describing field methods, materials collected, and conclusions. Any cultural material collected as part of an assessment or data recovery effort shall be curated at a qualified facility.

CR-2 **Human Remains Recovery Procedures**. If human remains are discovered, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the

county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner will notify the NAHC. The NAHC will determine and notify a Native American most likely descendant (MLD). The MLD will complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

GEO-1 Existing Fill Removal. As recommended in the Preliminary Geotechnical Exploration prepared by ENGEO for the Project, the Project applicant shall completely remove existing fill down to native soil. The native soil shall be scarified and moisture-conditioned before being covered with new engineered fill.

GEO-2 Expansive Soil Mitigation. As recommended in the Preliminary Geotechnical Exploration prepared by ENGEO for the proposed Project, the Project applicant shall evaluate the expansion potential of the property soils at the time of design-level study and mitigate expansive soils through appropriate foundation design and during grading activities as recommended in the design-level study. Mitigation may include the use of such common and effective measures as a post tensioned mat foundation, incorporating fill specifications tailored to the onsite soil expansiveness, and keeping exposed soils moist by occasional sprinkling during grading.

HAZ-1 Soil Testing and Disposal. Prior to obtaining a grading permit, the applicant shall submit the results of ENGEO's June 2017 *Remedial Action Plan* to the ACDEH for approval. Past soil sampling was sufficient to delineate the vertical and lateral extent of concentrations of arsenic, organochlorine pesticides, and petroleum hydrocarbons that exceeded the latest ESLs provided by the San Francisco Bay Regional Quality Control Board. The volume of soil with contaminants that exceed their respective ESLs shall be disposed of at a facility licensed to receive Class II non-hazardous waste as determined to be appropriate by the site assessor, such that remaining soil on-site does not exceed ESLs.

FLOOD-1 Flood Insurance Rate Map. Prior to approval of the Tentative Map, the applicant shall obtain a revision to the Flood Insurance Rate Map from FEMA with support from the County. This process will first entail the applicant applying for a CLOMR-F. FEMA would then review the CLOMR-F and determine based on final site design plans whether or not the proposed development would be eligible to be removed from the Special Flood Hazard Area. If FEMA accepts the CLOMR-F, then following construction the applicant would need to demonstrate that the proposed Project "as-built" matches the submitted final site designs that were used to support the CLOMR-F. After FEMA determines that the project "as built" matches the previously submitted final site plans, the agency would issue a LOMR-F to remove the Project from the Special Flood Hazard Area.

N-1 Best Management Practices to Assure Acceptable Vibration Levels. The following mitigation shall be implemented by Project construction crews to avoid structural damage due to construction vibration and to reduce the perceptibility of vibration levels at nearby sensitive land uses:

- Minimize or avoid using clam shovel drops, vibratory rollers, and tampers near the shared property lines of the adjacent land uses.
- When vibration-sensitive structures are within 25 feet of the site, survey condition of existing structures, and, when necessary, perform site-specific vibration measurements to direct construction activities. Contractors shall continue to monitor effects of construction activities on surveyed sensitive structures and offer repair or compensation for damage.

- Construction management plans shall include predefined vibration reduction measures, notification of scheduled construction activities requirements for properties adjoining the site, including contact information for on-site coordination and complaints.

N-2 **Best Management Practices to Reduce Construction Noise Levels.** The following mitigation shall be implemented to reduce construction noise emanating from the Project site to the surrounding sensitive land uses:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible.
- Erect temporary noise control blanket barriers, if necessary, along building façades facing construction sites. Noise control blanket barriers can be rented and quickly erected.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the Project site.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

TCR-1 **Unanticipated Discovery of Tribal Cultural Resources**. In the event that cultural resources of Native American origin are identified during construction, Alameda County shall consult with a qualified archaeologist and begin or continue Native American consultation procedures. If Alameda County determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.

G. AGREEMENT BY PROJECT SPONSOR

Project Sponsor, acting on behalf of all present and future property owners and Permittees, understands the mitigation measures set forth above and agrees to be bound by them if they are adopted as a result of Project approval. Monitoring reports shall be provided to the Planning Director and Director of Public Works at appropriate stages in the development process.

_____ 9-1-17

Project Sponsor's Signature Date

Todd Deutscher* Npmhcar K_l_ecp

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Project Sponsor's Printed Name and Title